RYAZANOV, Vladimir Sergeyevich, kand. arkhitektury; RAZINKOV, P., red.; YEGOROV, I., tekhn. red.

[Planning and building up collective farm facilities] Planirovka i zastroika kolkhoznogo sela. [Moskva] Mosk. rabochii, 1958. 105 p. (Farm buildings) (MIRA 11:9)

Ryazanov, Vladimir Sergeyevich

Planirovka i zastroyka kolkhoznogo sela (Planning and construction of buildings in a Kolkhoz settlement) Moskva, Moskovskiy Rabochiy, 1958.
105 P. Illus., Diagrs., Tables.
Bibliographical Footnotes.

RYAZANOV, V.S.; BUTUZOVA, V.P.; SIMONOV, G.V.; GOL'DSHTEYN, A.M.; KORNEYEV, N.A.; SAMOYLOV, Ya.M.; LYSYKH, I.V.; KHMEL'NITSKIY, G.S.; KRUTIKOV, Ye.B.; ANTONOV, M.F.; DOBROSEL'SKAYA, T.M.

[Recommendations for the establishment of schemes for planning farming areas] Rekomendatsii po sostavleniiu skhem planirovki sel'skokhoziaistvennykh raionov. Moskva, Stroiizdat, 1965. 151 p. (MIRA 18:7)

1. Moscow. TSentral'nyy nauchno-issledovatel'skiy i proyektnyy institut po gradostroitel'stvu. 2. TSentral'nyy nauchno-issledovatel'skiy i proyektnyy institut po gradostroitel'stvu, Moskva.

ARKHANGEL'SKIY, P.Ye., inzhener; ARKHIPOV, P.P., inzhener; VAS'KOV, M.P., agronom; ZHMUDSKIY, D.A., arkhitektor; IVANOV, A.P., arkhitektor; KIBIREV, S.F., arkhitektor; KRYLOV, N.V., inzhener-arkhitektor; KULAKOV, D.V., arkhitektor; MARTYNOV, P.F., inzhener; NIKIFOROV, V.S., inzhener; NOSKOV, B.G., arkhitektor; PETUKHOV, B.V., kandidat tekhnicheskikh nauk; RUDANOV, M.L., kandidat tekhnicheskikh nauk; RYAZANOV, V.S., kandidat arkhitektury; SOKHRANICHEV, N.S., inzhener-arkhitektor; TARASOV, D.I., arkhitektor; SHMIDT, N.E., kandidat arkhitektury; KHOMUTOV, Ye.Ye., arkhitektor; VOL'FOVSKAYA, V.N., redaktor; FEDOTOVA, A. F., tekhnicheskiy redaktor.

[Handbook on the construction of farm buildings] Spravochnik po sel'skokhozyaistvennomu stroitel'stvu. Avtorskii kollektiv: P.E.Arkhangel'skii i dr., avtor-sost. N.V.Krylov. Moskva, Gos.izd-vo sel'khoz.lit-ry. Vol.3 1955. 843 p. (Farm buildings) (MLRA 9:6)

RYAZANOV, Vladimir Timofeyevich, zasl. agronom RSFSR; MIKHNEVICH, A.Ye., red.; TSYURKO, M.I., tekhn. red.

[Advanced millet cultivation; about experience in the cultivation of millet in the Lenin and "Leninskii put'". Orenburg, Orenburgskoe knizhnoe izd-vo, 1960. 19 p. (MIRA 14:12)
(Millet)

M

COUNTRY : USSR
CATEGORY : Cultivated Plants. General Problems.

ABS. JOUR. : Ref Zhur-Biologiya, No.4, 1959, No. 15557

AUTHOR : Ryazanov V.T.; Anikovich, V.F.; Artsishevskiy, L.M.

INST. : Not given

TITLE : The Importance of Pure Fallows in Orenburgskaya Oblast.

ORIG. PUB. : Zemledeliye, 1958, No.5, 30-34

ABSTRACT : No abstract

CARD: 1/1

RYAZANOV, V.T., agronom

Collective and state farms of Orenburg Province are using advanced cultivation practices in drought control. Zemledelie 8 no.1:26-29 Ja '60. (MIRA 13:4)

1. Orenburgskoye oblastnoye upravleniye sel'skogo khozyaystva.
(Orenburg Province--Drought)

RYAZANOV, V.Y.; ANIKOVICH, V.F., kand. sel'skokhozyaystvennykh nauk; ARTSISHEVSKAYA, L.M., agronom.

Importance of clean fallow in Orenburg Province. Zemledelie 6 no.5:30-34 My '58. (MIRA 11:6)

1. Glavnyy agronom Orenburgskogo oblastnogo upravleniya sel'skogo khozyaystva (for Ryazanov).
(Orenburg Province--Fallowing)

34388
S/682/61/000/003/002/008
D234/D302

26.2195

AUTHORS: Bodner, V.A. and Ryazanov, Yu.A.

TITLE: On the problem of synthesizing structural diagrams of self-tuning systems of control of turbo-jet engines

SOURCE: Avtomaticheskoye regulirovaniye aviadvigateley; sbornik statey. no. 3, Moscow, 1961, 33 - 50

TEXT: The subjects treated are effect of flight conditions on the dynamical characteristics of the engine; synthesis of optimum parameters of control devices; analysis of the control system of the engine operating under variable external conditions; synthesis of structural diagrams of self-tuning units varying the parameters of the correcting devices. It is stated that optimum transition process under all flight conditions can be obtained by varying the parameters of the correcting circuits of regulators of the number of revolutions and gas temperature. The choice of optimum parameters of the correc-

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On the problem of synthesizing ...

ting devices can be realized with the aid of special self-tuning units containing functional elements and search elements; these units are practically identical for regulating circuits of both the number of revolutions and gas temperature. [Abstractor's note: The authors use the abbreviation TRDF, which has been translated 'turbo-jet engines' in the same way as TRD; the meaning of the letter F is not clear]. There are 12 figures and 2 tables.

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L 42796-66

ACC NR: AP6029037 SOURCE CODE: UR/0413/66/000/014/0053/0054

INVENTOR: Ivanov, Yu. K.; Ryazanov, Ye. M.

36
B

ORG: none

TITLE: Method of preventing an erratic arc. Class, 21, No. 183854

SOURCE: Izobret prom obraz tov zn, no. 14, 1966, 53-54

TOPIC TAGS: arc welding, metal welding, inert gas welding

ABSTRACT: This Author Certificate introduces a method of preventing an erratic arc in welding of thin articles where the distance between clamps is equal to the width of the weld. To improve the quality of welds, the clamps, which are made out of material with a resistivity lower than that of the welded material, are covered with a 40—120-μ coat of material with a resistivity several times higher than that of the welded material. In a modification of the above method, the clamps are made entirely of a material with a resistivity several times higher than that of the material welded. [TD]

SUB CODE: 11, 13/ SUBM DATE: 27Jan64/ ATD PRESS: 5066

Card 1/1 UDC: 621.791.856

AUTHOR: Korobeynikov, V.P. and Ryazanov, Ye. V. (Moscow) 40-22-2-17/21

TITLE: The Construction of Rigorous, Discontinuous Solutions for the One-Dimensional Equations of Gas Dynamics and Their Applications (Postroyeniye tochnykh razryvnykh resheniy uravneniy odnomernc, gazodinamiki i ikh prilozheniya)

PERIODICAL: Prikladnaya matematika i mekhanika, 1958, Vol 22, Nr 2, pp 265-268 (USSR)

ABSTRACT: During the last time discontinuous solutions obtained particular interest in the investigation of one-dimensional motions of real gases in presence of shock waves. Only few similar solutions could be found till now in this case. However, new kinds of solutions can be constructed with the aid of a rigorous solution given by Sedov. This solution of Sedov has the form :

$$v = -\frac{1}{\mu}\frac{d\mu}{dt}r \quad ; \quad p = \mu^{\gamma\nu}\left\{C + \frac{\nu(\gamma-1)}{2(s+2)}BP(x)\right\}$$

$$\rho = \mu^{\nu}\xi^{s}P'(x); \quad \frac{d\mu}{dt} = \pm\mu^{2}\left(A + B\mu^{\nu(\gamma-1)}\right)^{1/2}$$

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The Construction of Rigorous, Discontinuous Solutions for the One-Dimensional Equations of Gas Dynamics and Their Applications 40-22-2-17/21

here $P(x)$ is an arbitrary function, $\mu = \mu(t)$ a function of time, s is a certain constant, $\xi = r/\mu$ is a Lagrange coordinate, furthermore it holds $x = \xi^{s+2}$.
The author applies this solution in order to construct rigorous solutions for the case when the shock wave moves in a resting gas with variable density under constant pressure. Here at first the functions $P(x)$ and $r(t)$, which denotes the radius of the shock wave, are calculated. From these values the other magnitudes interesting for the flow can be determined. There are 3 references, 2 of which are Soviet, and 1 American.

SUBMITTED: October 22, 1957

1. Gas flow--Mathematical analysis 2. Shock waves--Mathematical analysis

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RYAZANOV, Ye.V. (Moskva)

Deriving exact solutions for equations of one-dimensional gas dynamics in the presence of discontinuities. Prikl.mat. i mekh. 22 no.5:720 S-O '58. (MIRA 11:11)
(Aerodynamics)

RYAZANOV, Ye.V. (Moskva)

Solutions of magnetohydrodynamic equations describing one-dimensional axisymmetric motions of a gravitating gas. Prikl.mat. i mekh. 23 no.1:187-189 Ja-F '59. (MIRA 12:2)
(Magnetohydrodynamics) (Differential equations)

21(7)

AUTHORS: Korobeynikov, V. P., Ryazanov, Ye. V. SOV/20-124-1-13/69

TITLE: On the Solutions of Equations of Magnetic Gas Dynamics in the Case of Vanishing Temperature Gradients (O resheniyakh uravneniy magnitnoy gazodinamiki pri nulevom gradiyente temperatury)

PERIODICAL: Doklady Akademii nauk SSSR, 1959, Vol 124, Nr 1, pp 51-52 (USSR)

ABSTRACT: The authors investigate one-dimensional motions of an electrically conductive perfect gas with cylindrical and plane waves. The conductivity of the gas is assumed to be infinite, and viscosity is disregarded. The magnetic field is vertical to the trajectories of the gas particles. In the cylindrical case the magnetic lines of force can be straight lines which are parallel to the symmetry axis, concentric circles with their center on the axis, or also helical lines. The equations of motion and their particular solutions are explicitly written down and explained. The solutions obtained are also suited for the construction of a solution with shock waves. In conclusion, an equation is given for the motion of shock waves. There are 2 Soviet references.

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SOV/20-124-1-13/69

On the Solutions of Equations of Magnetic Gas Dynamics in the Case of Vanishing Temperature Gradients

ASSOCIATION: Matematicheskiy institut im. V. A. Steklova Akademii nauk SSSR (Mathematics Institute imeni V. A. Steklov of the Academy of Sciences, USSR)

PRESENTED: August 11, 1958, by L. I. Sedov, Academician

SUBMITTED: July 25, 1958

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10 (2)

AUTHOR: Ryazanov, Ye. V. SOV/20-126-5-11/69

TITLE: Examples of Exact Solutions of the Problems Concerning the Propagation of Explosion Waves in a Gravitating Gas When the Temperature Gradient Is Zero (Primery tochnykh resheniy zadach o rasprostranenii vzryvnykh voln v gravitiruyushchem gaze pri nulevom gradiyente temperatury)

PERIODICAL: Doklady Akademii nauk SSSR, 1959, Vol 126, Nr 5, pp 955 - 957 (USSR)

ABSTRACT: The problem of applying the law of similarity to the unsteady adiabatic motion of stellar gas masses was set by L. I. Sedov, who presented also exact solutions of the corresponding equations. In the attempt to apply the law of similarity to some particular phenomena occurring in stellar eruptions he obtained solutions of equations of motion which describe explosions. These solutions are shortly discussed in the introduction. The author of this article investigates the case in which the temperature gradient is zero within the range of disturbed motion of the gas and deduces exact solutions of this problem in a way similar to that of Sedov. This kind of flow is termed "homothermal". Similar motions were investigated already earlier (Refs

Examples of Exact Solutions of the Problems Concerning the Propagation of Explosion Waves in a Gravitating Gas When the Temperature Gradient Is Zero

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3-6). The one-dimensional homothermal ($\partial T/\partial r = 0$) motion of an ideal gas in the natural field of gravity in the case of spherical symmetry is first described by the system of equations (1). It is then assumed that at the instant of time $t = 0$ a shock wave is propagated from the center of gravity in the resting gas (4), and it is shown that (1), taking the conditions (4) into account, has the exact solution (5) which is similar to that of Sedov. The functions $r_2(t)$, $c(t)$ and $\varphi(t)$ are written down (r_2 denotes the radius, c the velocity of propagation of the shock wave) as well as an expression for the total energy contained between the radii r' and r". Finally, the difference between the total energy of the moving gas within the sphere limited by the shock wave and the energy contained primarily in the very volume (at t=0) is written down (7) and special cases are investigated. There are 6 Soviet references.

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Examples of Exact Solutions of the Problems Concerning the Propagation of Explosion Waves in a Gravitating Gas When the Temperature Gradient Is Zero

SOV/20-126-5-11/69

ASSOCIATION: Matematicheskiy institut im. V. A. Steklova Akademii nauk SSSR (Mathematical Institute imeni V. A. Steklov of the Academy of Sciences, USSR)

PRESENTED: March 2, 1959, by L. I. Sedov, Academician

SUBMITTED: February 23, 1959

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10(7)
AUTHOR: Ryazanov, Ye. V.

SOV/20-126-6-19/67

TITLE: Some Exact Solutions of the Equations of the Magnetic Gas Dynamics in the Presence of Forces of Intrinsic Gravity and With Zero Gradients of Temperature (Nekotoryye tochnyye resheniya uravneniy magnitnoy gazodinamiki pri nalichii sil sobstvennogo tyagoteniya i nulevogo gradiyenta temperatury)

PERIODICAL: Doklady Akademii nauk SSSR, 1959, Vol 126, Nr 6, pp 1224-1226 (USSR)

ABSTRACT: When clarifying the problems arising with the motion of cosmic gas masses, interest is devoted to the investigation of gas motions in the presence of forces caused by intrinsic gravity and a magnetic field. The adiabatic motion of gravitating masses had been investigated in other papers (Refs 1, 2 and 3). The present paper supplies some exact solutions of equations in gas dynamics, which describe one-dimensional nonstationary motions of gravitating ideal gases in cylinder symmetry. The temperature gradient is assumed to be equal to zero. For the case assumed here the equations of magnetic gas dynamics are given in (2), and three different types of particular solutions are given.

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Some Exact Solutions of the Equations of the Magnetic Gas Dynamics in the Presence of Forces of Intrinsic Gravity and With Zero Gradients of Temperature

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With the solutions obtained here it is possible to construct the flow, and this is done for an example with solutions of the third type. The author expresses his gratitude to L. I. Sedov, V. P. Korobeynikov, and A. G. Kulikovskiy for advice given. There are 8 Soviet references.

ASSOCIATION: Matematicheskiy institut im. V. A. Steklova Akademii nauk SSSR (Institute of Mathematics imeni V. A. Steklov of the Academy of Sciences, USSR)

PRESENTED: March 17, 1959, by L. I. Sedov, Academician

SUBMITTED: March 9, 1959

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77987
SOV/40-24-1-15/28

AUTHORS: Korobeynikov, V. P., Ryazanov, Ye. V. (Moscow)

TITLE: Solutions of Equations of One-Dimensional Magneto-Hydrodynamics, and Their Application to Problems of Spreading-Wave Shocks

PERIODICAL: Prikladnaya matematika i mekhanika, 1960, Vol 24, Nr 1, pp 111-120 (USSR)

ABSTRACT: Various cases are presented in which the equations describing the plane or cylindrically symmetric motion of an electrically conducting gas given by:

$$-\rho\frac{dv}{dt}=\frac{\partial p^*}{\partial r}+\frac{2(\nu-1)h_\varphi}{r},\qquad -\frac{1}{\rho}\frac{d\rho}{dt}=\frac{\partial v}{\partial r}+\frac{(\nu-1)v}{r}$$
$$-\frac{1}{2}\frac{dh_z}{dt}=h_z\left(\frac{\partial v}{\partial r}+\frac{(\nu-1)v}{r}\right)-r^{1-\nu}h_z^{1/2}\frac{\partial}{\partial r}\left(\nu_m r^{\nu-1}\frac{\partial h_z^{1/2}}{\partial r}\right) \qquad (1.1)$$
$$-\frac{1}{2}\frac{dh_\varphi}{dt}=h_\varphi\frac{\partial v}{\partial r}-h_\varphi^{1/2}\frac{\partial}{\partial r}\left[\nu_m r^{-1}\frac{\partial}{\partial r}(rh_\varphi^{1/2})\right]$$

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$$-\frac{dp}{dt}=\gamma p\left(\frac{\partial v}{\partial r}+\frac{(\nu-1)v}{r}\right)-2(\gamma-1)\nu_m\left\{\frac{1}{r^2}\left[\frac{\partial}{\partial r}(rh_\varphi^{1/2})\right]^2+\left(\frac{\partial h_z^{1/2}}{\partial r}\right)^2\right\} \quad (1.2)$$

$$\left(p^*=p+h,\quad h=h_z+(\nu-1)h_\varphi,\quad h_z=\frac{H_z^2}{8\pi},\quad h_\varphi=\frac{H_\varphi^2}{8\pi}\right)$$

can be integrated. Infinitely conducting stationary motions; unsteady automodel and non-automodel motions with shocks; motions in which the velocity depends linearly on r; isothermal flows, as well as the problem of an impulsive gas discharge are considered. The research done here is a continuation of prior work done by the authors both jointly and independently. Here, H_z and H_φ are the components of the magnetic

field intensity; ν_m is the magnetic viscosity; $\nu = 1, 2$ correponds to the plane and cylindrical case, respectively; and the remaining notation is standard. The magnetic field is always perpendicular to the velocity vector, and for $\nu = 1$, $h_\varphi = 0$. For infinite conductivity $\nu_m = 0$, and for isothermal flows, the fifth equation is replaced by $\partial T/\partial r = 0$ or $p = \theta(t)\rho$. The shock conditions for unsteady motions corresponding to the conservation of mass and momentum and the continuity of the electric field and energy are given by:

$$\rho_2(v_2 - u) = -\rho_1 u, \quad v_2\rho_2(v_2 - u) + p_2 = p_1 \quad (u = dr_2/dt) \tag{1.5}$$

$$h_{z2}\rho_1^2 = h_{z1}\rho_2^2, \quad h_{\varphi 2}\rho_1^2 = h_{\varphi 1}\rho_2^2 \tag{1.6}$$

$$(v_2 - u)\left(\frac{\rho_2 v_2^2}{2} + \frac{p_2}{\gamma - 1} + h_2\right) + v_2 p_2 = -u\left(\frac{p_1}{\gamma - 1} + h_1\right) \tag{1.7}$$

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for a medium at rest. The subscript 1, denotes the quantities in the undisturbed flow; the subscript 2, their values behind the shock; u is the shock speed and $r_2(t)$ is its radius. For the stationary case with $\nu_m = 0$ and $\nu = 2$, the authors give five integrals:

$$p = c_1\rho^\gamma, \quad \rho v r = c_2, \quad h_z = c_3 r^2\rho^2, \quad h_z = c_4\rho^2, \quad \frac{v^2}{2} + \frac{\gamma p}{(\gamma-1)\rho} + \frac{2h}{\rho} = c_5 \quad (2.1)$$

where $c_1, \ldots, c_5$ are arbitrary constants. This was also solved by K. Stanyukov (Zh. E. T. F., Vol 36, Nr 6, 1959). There exist two asymptotic curves on which $\partial v/\partial r = \infty$ and $v = a_* = \sqrt{(\gamma p + 2h)/\rho}$, i.e., the gas speed is equal to the total sound speed. A flow is possible only in the region between the two cylinders corresponding to these curves. Let r_0 and r_1 be the radii of these limiting circles.

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In a subsonic (supersonic) setup, as r varies from r_0 up to r_1 the speed decreases (increases) to a minimum (maximum) and then increases (decreases) to a^*. The authors note two algebraic first integrals of the system for the case of finite conductivity which has not been completely solved as yet. The isothermal steady case for $\nu_m = 0$ and $\nu = 2$ leads to one ordinary differential equation which can be integrated when $h_\varphi = 0$. For $\nu = 2$, $\nu_m = 0$, it is shown that the problem separates into one which is purely hydrodynamical and one for determining the magnetic pressure. For a strong blast along a line in a perfect gas, the motion of the shock is similar to that in ordinary gas dynamics. Next considered is the motion of piston moving in a gas at rest with a speed

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$U = A_1 t^n$, the piston radius being zero and the other flow quantities being proportional to negative powers of r, initially. For $\nu_m = 0$, the problem is automodel, if these powers and n obey a given relation and the solution can be obtained by numerical methods (given by the first author: Dokl. An SSSR, Vol 121, Nr 4, 1958). Several graphs are given depicting the dependence of the flow quantities on the space variable. A condition is also given insuring the automodelness of the problem for finite conductivity. When the velocity is a linear function of the radius, a solution for adiabatic gas flows without shocks was obtained by Kylikovskiy (Dokl. AN SSSR, Vol 114, Nr 5, 1957). For arbitrary γ, a solution is written down containing an arbitrary function of the space variable for the axisymmetric case. For $\gamma = 2$ an analogous solution is written which was derived by the second author (Priklad. mat.

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i mekh., 1959, Vol 23, Nr 1) in terms of two arbitrary functions of the space variable. The authors state that these two solutions can be used, by suitably choosing the arbitrary constants and functions, to connect the flow across a shock front. This was carried out in several cases in Priklad. matem. i mekh., 1958, Vol 22, Nrs. 2, 5. Here, the authors discuss in detail the solution for arbitrary γ for the problem of a strong shock (in the gas dynamical sense) starting from the conditions across a shock front given by G. Whitham (J. of Fluid Mech., 4, pp 337-360, 1958). The flow quantities and piston radius are then found for the compression of gas by a piston. In a previous paper (Dokl. AN SSSR, Vol 124, Nr 1, 1959), the authors showed that exact solutions exist for isothermal, infinitely conducting gases depending on an arbitrary function of the space variable or time in which the velocity also was a certain linear function of the space variable. The problem with shocks was solved using a

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solution containing an arbitrary function of the time. For isothermal flows in which $\nu = \nu(t)$, one can find particular solutions of (A) when ${}^{m}h_z$ or ${}^{m}h_\varphi$ is absent and which contain arbitrary constants. Starting from a particular solution involving an arbitrary function of the space variable, the authors discuss in detail and construct the solution across the shock. This solution is then used to obtain an exact solution of the following problem of an impulsive gas discharge: At time t = 0, there is a cylindrical column of gas whose assumed high temperature makes the gas infinitely conducting; a magnetic field with given intensity is assumed to be "fixed" in the column and directed parallel to the cylinder axis; the initial density is constant at t = 0 and the total pressure in the gas is assumed to be constant; at t = 0 a current begins to flow through the column in the axial direction according to a given law.

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Because of the pinch effect, compression of the plasma begins and a shock wave propagates toward the center. The motion of the gas between the shock and outer radius of the column is then determined. There is 1 figure; and 15 references, 14 Soviet, 1 U.S. The U.S. reference is: G. B. Whitham, On the Propagation of Shock Waves Through Regions of Nonuniform Area or Flow, J. Fluid Mech., 4, pp 337-360, 1958.

SUBMITTED: August 24, 1959

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RYAZANOV, Ye. V PHASE I BOOK EXPLOITATION SOV/5711

Korobeynikov, Viktor Pavlovich, Nina Sergeyevna Mel'nikova, and Yevgeniy Vasil'yevich Ryazanov

Teoriya tochechnogo vzryva (Theory of Point Detonation) Moscow, Fizmatgiz, 1961. 332 p. 5,000 copies printed.

Ed.: S. N. Shustov; Tech. Ed.: I. Sh. Aksel'rod.

PURPOSE: This book is intended for scientists interested in shock-wave propagation, and for aspirants and students in advanced courses in gas dynamics at schools of higher education. It may also be used by engineers concerned with problems of detonation.

COVERAGE: The book contains the results of work by Soviet and non-Soviet scientists on the theory of point detonation. The point-detonation theory arose in connection with the necessity of describing phenomena which take place in uniform media during detonations of charges of small volume and weight, but which develop high energy. The point-detonation theory makes it possible to obtain, with an accuracy sufficient for practical purposes,

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much necessary data on the nature of the unsteady motion developed during a detonation. It should be mentioned that this theory may also be applied to problems of the flow of a superhigh-speed gas stream around blunt-nosed slender bodies and to problems of shock-wave propagation during electrical discharges and detonation of fine metal wires through which a pulsed current is passed. Over the last few years many works published mainly in various Soviet and non-Soviet journals have dealt with investigations of the motion of a gas during point detonations. In view of the absence of a complete presentation of the point-detonation theory, which is important in investigating various problems of gas dynamics, the authors of the book have endeavored to give a systematic presentation of its principal conditions and the more important results of research employing this theory. The book contains eight chapters. Chapter I sets forth general equations of one-dimensional unsteady motions and some mechanical and thermodynamic relationships. Here the problems of point detonation are formulated and the main results of studies dealing with this problem are reviewed. In Chapter II self-

simulating [automodeling] problems of detonation in an ideal gas having constant and variable initial density are reviewed, and the solution is given to the problem of the motion of a gas expelled by a piston. The approximation method of calculating problems which are not self-simulating is given in Chapter III. This method is based on the linearization of a gas-dynamics equation about a self-simulating solution. The stated method is used to solve point-detonation problems by taking into account counter-pressure and density variation with altitude, and also, to solve problems of the motion of a gas expelled by a piston. The application of the point-detonation theory to the aerodynamics of thin bodies is reviewed. Chapter IV contains the results of the numerical solution of a non-self-simulating spherical-charge detonation problem, and a comparison of these results with some experimental data. Also examined in Chapter IV are the problems of the asymptotic behavior of the solution near the detonation center and the laws of shock wave attenuation at great distances. In Chapter V approximation formulas are derived for calculating the parameters of spher-

ical, cylindrical, and plane detonation waves. In Chapter VI a method is given for setting up some exact solutions which describe the one-dimensional unsteady flow of a gas with shock waves. The application of this method to detonation phenomena is discussed. The aforementioned chapters review problems of adiabatic motions of an ideal gas with constant heat capacities. The last two chapters include problems formulated on the basis of other assumptions. Thus, in Chapter VII, problems of powerful detonation in an ideal gas under conditions of nonadiabatic motion in a disturbed zone are studied. One of the methods for calculating radiation is shown here. Chapter VIII deals with a number of problems connected with point detonation in a slightly compressible uniform medium, e.g., water. An investigation of the general characteristics of solutions to problems concerning powerful detonations is given for a broad class of self-simulating media. The book does not deal with questions connected with the calculation of gas viscosity, the effects of gravity, or ionization and dissociation processes since there are still many unsolved problems

in this area. A number of results obtained by the authors and published earlier in journal articles are included. Many of the subjects covered in the book were topics in a series of reports delivered at seminars on hydrodynamics at the Moscow State University. A bibliography of Soviet and non-Soviet literature is given at the end of the book. The book was written as follows: Chapters IV, V, Section 3 of Chapter II, and Section 6 of Chapter III were written by V. P. Korobeynikov; Chapters III and VIII, by N. S. Mel'nikova; Chapters II and VI, by Ye. V. Ryazanov; Chapter I, by Korobeynikov and Mel'nikova; Chapter VII, by Korobeynikov and Ryazanov; and Sections 2, 6, 8, and 9 of Chapter II, by Mel'nikova and Ryazanov. The authors participated jointly in compiling the problems reviewed in Sections 3, 4, and 5 of Chapter III, Sections 2 and 6 of Chapter IV, and Section 1 of Chapter VIII. It should be mentioned that Sections 3, 4, 5, 6, 7, and 9 of Chapter VIII were written by N. S. Mel'nikov and N. N. Kochina mainly on the basis of their articles. The authors thank Leonid Ivanovich Sedov for his valuable remarks concerning many of the problems

reviewed in the book; V. P. Karlikov, for his help in writing Section 5 of Chapter III; and Yu. L. Yakimov, for submitting the material for Section 8 of Chapter VIII and for his valuable comments. There are 74 references: 57 Soviet, and 17 English.

TABLE OF CONTENTS:

L 17038-63 EPR/EPA(b)/EWT(1)/EWG(k)/BDS ASD/ S/207/63/000/002/016/025
AFFTC/ESD-3/AFWL Ps-4/Pd-4/Pz-4 WW/JHB/TF

AUTHOR: Karlikov, V. P., Korobeynikov, V. P., and Ryazanov, Ye. V. (Moscow)

TITLE: An approximate method for solving explosion problems in certain ideally compressible media

PERIODICAL: Zhurnal prikladnoy mekhaniki i tekhnicheskoy fiziki, no. 2, 1963, 132-134

TEXT: During explosions in certain ideal media, like water or water-containing ground, the motion of the liquid near the gaseous cavity agrees with the theoretical calculations of the displacement for the case of an explosion within an incompressible liquid. N. N. Kochina and N. S. Mel'nikova (Ref. 2: DAN SSSR, 1961, vol. 138, no. 2) enumerated the properties which distinguish media having the above-mentioned characteristics. Under such circumstances the compressibility substantially influences the fluid motion only within a relatively narrow region adjoining the shock wave containing large gradients of density, pressure, and velocity. The authors expect that the just mentioned facts are favorable for the existence of an approximate solution of the problem stated in the title. They start at time t = 0 with an instantaneously produced spherical volume of gas within

Card 1/2

L 17038-63 S/207/63/000/002/016/025

An approximate method...

a compressible medium at rest and of uniform density prior to the explosion. The gas is hot, highly compressed, and has an initial energy E_0. The motion of the liquid behind the wave front is described by a spherically symmetric system of equations of gas dynamics. The results of the approximate calculations are compared with the exact solution of the automodel explosion problem presented by N. N. Kochina and N. S. Mel'nikova (Ref. 5: PMM, 1958, vol. 22, no. 1). The errors of the approximate results are within 20% of the exact values and should be considered satisfactory. The calculations can be extended to the case when the density of the region in the vicinity of the gas bubble is not constant but, e.g., depends on time.

SUBMITTED: January 31, 1963

Card 2/2

L 43710-65 EWT(l)/EWP(m)/EPA(sp)-2/EWA(h) Pd-1/Pab-10/Pe-5/Ps-4/Pi-4 IJP(c) WW/GS

ACCESSION NR: AT5009751 UR/0000/64/004/000/0033/0041

AUTHOR: Korobeynikov, V. P.; Ryazanov, Ye. V.

TITLE: The propagation of explosion-induced magnetohydrodynamic shock waves

SOURCE: Soveshchaniye po teoreticheskoy i prikladnoy magnitnoy gidrodinamike. 3d, Riga, 1962. Voprosy magnitnoy gidrodinamiki (Problems in magnetic hydrodynamics); doklady soveshchaniya, v. 4. Riga, Izd-vo AN LatSSR, 1964, 33-41

TOPIC TAGS: shock wave propagation, explosion-induced shock wave, magnetohydrodynamic shock wave

ABSTRACT: The shock wave generated by a sudden release of energy at a point, along a line, or over a surface within an electrically conducting gas is discussed. Assuming that the resulting motion can be described by the equations of magnetohydrodynamics, the authors proceed to integrate the system of equations with boundary conditions imposed at the center of explosion at the shock wave front and at infinity. The case of a strong cylindrical explosion within an infinitely conductive medium containing only the azimuthal component of the magnetic field, and a strong cylindrical explosion with a conduction discontinuity, have been discussed

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L 43710-65
ACCESSION NR: AT5009751

earlier (V. P. Korobeynikov, DAN SSSR, 1958, 121, 4, 613); PMTF, 1960, 2, 47). Here, the authors present the cases of strong cylindrical or plane detonation within a gas of finite conductivity and for low magnetic Reynolds numbers, and of strong cylindrical detonation within a gas of constant conductivity, within a finite volume, and with the azimuthal magnetic field component only. Orig. art. has: 18 formulas and 2 figures.

ASSOCIATION: None

SUBMITTED: 11Aug64 ENCL: 00 SUB CODE: ME

NO REF SOV: 009 OTHER: 001

llc

Card 2/2

KOROBEYNIKOV, V.P. (Moskva); RYAZANOV, Ye.V. (Moskva)

Effect of a magnetic field on the propagation of plane and cylindrical shock waves. PMTF no.4:47-51 Jl-Ag '62.
(MIRA 16:1)

(Shock waves) (Magnetic fields)

S/

ACCESSION NR AM4021935 BOOK EXPLOITATION

Ryazanov, Yu. A.

Design of automatic control systems (Proyektirovaniye sistem avtomaticheskogo regulirovaniya), Moscow, Mashgiz, 1963, 310 p. illus., biblio. 7,500 copies printed.

TOPIC TAGS: automation, automatic control system

PURPOSE AND COVERAGE: This book is devoted to problems of designing systems of automatic control. In addition to a brief presentation of the theoretical fundamentals of analysis, the problems of synthesizing control systems based on selected criteria of optimality, selecting elements of the control system and determination of their parameters associated with the static and dynamic characteristics of these elements are discussed. Special attention is given to compatibility of elements in the control system. The book is intended for specialists designing control systems and also can be used by students in machine building institutes.

TABLE OF CONTENTS [abridged]:

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ACCESSION NR AM4021935

SUB CODE: CP SUBMITTED: 23Aug63 NR REF SOV: 018

OTHER: 002 DATE ACQ: 06Jan64

Card 2/2

BODNER, V.A.; RYAZANOV, Yu.A.

Synthesis of structural diagrams of the self-adjusting control system for supercharger turbojet engines. Avtom.reg.aviadvig. no.3:33-50 '61. (MIRA 14:12)

(Airplanes--Turbojet engines)
(Automatic control)

L 40025-66 EWT(d)/EWT(l)/T-2/EWP(l) IJP(c) WW/BC/GD

ACC NR: AT6017619 (N) SOURCE CODE: UR/0000/65/000/000/0296/0308

AUTHOR: Belkin, Yu. S.; Bodner, V. A.; Getsov, L. N.; Mart'yanova, T. S.; Ryazanov, Yu. A.

73

B+1

ORG: none

TITLE: Adaptive systems for the optimization work regimes and transient processes in a turbojet engine

SOURCE: Vsesoyuznaya konferentsiya po teorii i praktike samonastraivayushchikhsya sistem. 1st, 1963. Samonastraivayushchiyesya sistemy (Adaptive control systems); trudy konferentsii. Moscow, Izd-vo Nauka, 1965, 296-308

TOPIC TAGS: optimal automatic control, turbojet engine, thrust optimization, SELF ADAPTIVE CONTROL

ABSTRACT: Synthesis and analysis of an adaptive system to optimize and control various parameters of a turbojet engine is presented. The equations of the system are written out in detail and numerical data are tabulated. The analysis was performed using analog simulation and the graphical results are presented. The control parameters considered were the rpm of the turbo-compressor, the inlet and afterburner temperatures and the turbine pressure gradient. The control inputs considered were the main fuel consumption, the afterburner fuel consumption, and the nozzle cross section. Orig. art. has: 16 formulas, 7 figures, 1 table.

SUB CODE: 12,13,21/ SUBM DATE: 22Nov65

Card 1/1 a-l

L 30101-65 EEO-2/EWT(d)/EEC-4 Pn-4/Po-4/Pq-4/Pg-4/Pk-4/Pl-4 IJP(c) GS/BC

ACCESSION NR: AT5004131 S/0000/64/000/000/0403/0411

AUTHOR: Bodner, V.A. (Doctor of technical sciences); Ryazanov, Yu. A.

TITLE: Application of the theory of invariance to the selection of the parameters of a flight control system

SOURCE: Vsesoyuznoye soveshchaniye po teorii invariantnosti i yeye primeneniyu v avtomaticheskikh sistemakh. 2d, Kiev, 1962. Teoriya invariantnosti v sistemakh avtomaticheskogo upravleniya (Theory of invariance in automatic control systems); trudy soveshchaniya. Moscow. Izd-vo Nauka, 1964, 403-411

TOPIC TAGS: flight control system, invariance theory, automatic pilot, damping contour

ABSTRACT: The application of the theory of invariance to the selection of the parameters of a flight control system is investigated. First, the selection of the parameters of the damping contour is determined. This is done by obtaining expressions for the dynamic properties of an aircraft in yawing motion. Then the authors obtain equations for the selection of the parameters of a flight control system. This is done by determining the equation describing the autopilot. From this, the authors obtain the equation of a closed system from which the transfer functions for an aircraft in yawing motion are obtained. The article concludes with a determination of the pecularities of accomplishing a self-tuning

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L 30101-65

ACCESSION NR: AT5004131

flight control system and a description of its components. The authors conclude that the conditions of invariance can be maintained, when the parameters of the object change, by means of changing the ratio of the damping contour by self-tuning devices. Orig. art. has: 5 figures and 17 formulas.

ASSOCIATION: none

SUBMITTED: 24Sep64 ENCL: 00 SUB CODE: NG, IE, AC

NO REF SOV: 001 OTHER: 000

Card 2/2

RYAZANOV, Yu.A.; PETROV, V.V., doktor tekhn. nauk, prof., retsenzent; AKIMOVA, A.G., red.izd-va; UVAROVA, A.F., tekhn. red.

[Design of automatic control systems] Proektirovanie sistem avtomaticheskogo regulirovaniia. Moskva, Mashgiz, 1963. 310 p. (MIRA 16:11)

(Automatic control)

RYAZANOV, Yu.V., inzh.

New design of box feeders. Stroi.mat. 6 no.1:38 Ja '60. (MIRA 13:5)
(Brick industry--Equipment and supplies)

L 36985-66 EWT(m)/T/EWP(t)/ETI IJP(c) JD

ACC NR: AP6012220 SOURCE CODE: UR/0032/66/032/004/0457/0457

AUTHOR: Kleyner, L. M.; Pilikina, L. D.; Ryazanova, A. N.; Flent, O. V.

ORG: none

33
B

TITLE: Determination of grain size in high strength steels of the martensite type

SOURCE: Zavodskaya laboratoriya, v. 32, no. 4, 1966, 457

TOPIC TAGS: grain size, martensitic steel, high strength steel

ABSTRACT: The proposed method consists in oxidation of the metal at a temperature somewhat lower than Ac_1 (600-730°C). The oxidizer used was $KMnO_4$ which decomposes above 200°C, evolving atomic oxygen. A sample was oxidized at a temperature of 720 or 600°C for 2 or 4 hours. After cooling in air to room temperature, the oxide film was removed. Etching was carried out with a reagent consisting of 4 grams $CuSO_4$; 20 ml HCl; and 20 ml H_2O, with the addition of a surface active substance--synthol (10:6). The article shows microphotos of the polished samples. Orig. art. has: 1 figure.

SUB CODE: 11/ SUBM DATE: none.

Card 1/1

KHOROSH, V.A.; BOYKO, M.Ye.; KOSSOVSKIY, L.D.; SHVYREV, M.S.; KOPYTIN, P.I.; RUSANOV, I.I.; Prinimali uchastiye: KOVTUNOVICH, V.A.; KUKSHKINA, M.Ye.; RYAZANOVA, A.P.; VISKUNOVA, T.Ya.; MUKHINA, M.A.

Determining the optimal conditions for blooming mill operations. Stal' 23 no.4:338-340 Ap '63. (MIRA 16:4)

1. Chelyabinskiy metallurgicheskiy zavod.
(Rolling mills)

ZARING, P.V.; NIKIFOROV, A.M., spetsredaktor; RYAZANOVA, A.P., red.; MAYBORODA, M.I., khudozhestvenno-tekhnicheskiy red.

[Grasshoppers, locusts, and their control] Saranchovye, kuznechiki i bor'ba s nimi. Moskva, Izd-vo M-va sel.-khoz. SSSR, 1957. 13 p. 22 p. of illus. (MIRA 11:6)

1. Russia (1923- U.S.S.R.) Glavnaya gosudarstvennaya inspektsiya po karantinu i zashchite rastenii.
(Locusts--Extermination)

RYAZANOVA, F.D.

137-58-4-7661

Translation from: Referativnyy zhurnal, Metallurgiya, 1958, Nr 4, p 186 (USSR)

AUTHOR: Ryazanova, F.D.

TITLE: A Statistical Method of Monitoring for Heat- treatment Shops (Statisticheskiy metod kontrolya v termicheskikh tsekhakh)

PERIODICAL: Sb. nauchn. tr. Belorussk. politekhn. in-t, 1957, Nr 57, pp 81-86

ABSTRACT: Experiences in and the results of the introduction of statistical control (SC) in heat-treatment shops are set forth. Prior to the introduction of SC, bearing parts were inspected for hardness and microstructure. 5 percent of each lot of balls and rollers and 100 percent of the races were inspected for hardness; 1.5 percent of the total output was checked for macrostructure (fracture) and microstructure, and this required a large laboratory and Department of Technical Control staff. After the introduction of SC, selection of parts for testing was made at specified time intervals appropriate to the production cycle, and hardness measurements and the results of microstructural analysis are entered into a statistical control chart. Simultaneously, the adherence of process technology to that scheduled is monitored. The statistical charts constitute documents,

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137-58-4-7661

A Statistical Method of Monitoring for Heat- treatment Shops

a systematic analysis of which makes possible elimination of scrap and errors, and employment of the statistical data makes it possible to introduce correction factors and to improve the technology. Introduction of SC cut scrap due to overheating and underheating by 75-80 percent and afforded a reduction by one-half in the number of persons employed in the Departments of Technical Control.

I. K.

1. Metals--Heat treatment--Quality control 2. Statistical data--Applications

Card 2/2

137-58-2-3486

RYAZANOVA, F. D.

Translation from: Referativnyy zhurnal, Metallurgiya, 1958, Nr 2, p 173 (USSR)

AUTHOR: Ryazanova, F. D.

TITLE: An Oil Bath With Quick-change Heaters (Maslovanna s bystrosmennymi nagrevatelyami)

PERIODICAL: Sb. nauchn. tr. Belorussk. politekhnich. in-t, 1957, Nr 57, pp 87-90

ABSTRACT: A brief examination is provided of the advantages and shortcomings of furnaces (F) for low-temperature tempering [F with electric heating, also small-size shaft-type F and oil baths (B)]. In the treatment practice for bearing parts of ShKh6, ShKh9, and ShKh15 steel subjected to tempering in electric belt F where the difference in air temperature around the heaters and in the middle of the F is held to 10-15°C, a reduction of R_C from 63-65 units to 60 is observed. The electric oil bath is widely used to assure uniform heating of parts and also because of its ready usability for low-temperature processes in general and because of its simplicity of design and cheapness of manufacture. The author's design of a 12 kw electric oil bath for tool tempering and aging has its heater in

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An Oil Bath With Quick-change Heaters

the lower portion of the non-working space of the F; this provides a uniform temperature throughout the height of the B. A description is offered. The B has a square shape, the dimensions of the inside crucible being 0.65x0.65x0.60 m. Heating of the B to 250° is effected in 2.5-3 hours; adjustment of temperature is by an automatic thermostat. A great advantage of a B of this design is the fact that pre-assembled heaters can be replaced very rapidly (20-30 min) without stopping the tempering process.

A.B.

1. Heat treatment--Equipment 2. Furnaces--Equipment

RYAZANOVA, Faina Dmitriyevna, dots.; FUNSHTEYN, Yakov Naumovich, dots.; KHUDOKORMOVA, Rimma Nikolayevna, assistent; LYAKHOVICH, L.S., kand. tekhn. nauk, red.; LEVINA, S.G., red.

[Laboratory manual on metallography and the heat treatment of metals] Laboratornyi praktikum po metallovedeniiu i termicheskoi obrabotke metallov. Minsk, Vysshaia shkola, 1965. 124 p. (MIRA 18:6)

RYAZANOVA, G.I.

Interrelationship between body weight and wing area in dragonflies. Zool. zhur. 44 no.9:1357-1362 '65.
(MIRA 18:10)

1. Kafedra entomologii Moskovskogo gosudarstvennogo universiteta.

RYAZANOVA, I. N.

"A study of the effectiveness of vaccine against influenza", Zhurnal Mikrobiologiv, Epidemiologiy i Immunobiologii, No 10, pp 44-45, 1953.

RYAZANOVA, I.M.

Study of the efficacy of influenza vaccination. Zhur.mikrobiol. epid.i immun. no.10:44-46 O '53. (MLRA 6:12)
(Influenza)

Oct 53

RYAZANOVA, I. N.

USSR/Medicine - Influenza Vaccines

"Investigation of the Effectiveness of Immunization Against Influenza," I. N. Ryazanova

Zhur Mikro Epid i Immun, No 10, pp44-46.

Immunization of the personnel of 2 Moscow industrial plants with 3 polyvalent anti-influenza vaccines was without effect by reason of the fact that there was no occurrence of influenza at the plants in question during 1952-3. The (allantoic) vaccine of the (Moscow) Inst im Mechnikov, the tissue vaccine of the Inst of Virology, and the dry (powdered) vaccine of the Inst of Exptl Med were used.

266T18

KRASOVITSKIY, B.M.; MATSKEVICH, R.M.; RADOCHINA, N.A.; RYAZANOVA, K.P.

Direct azo dyes, derivatives of 1,8-naphthoylene-1',2'-benzimidazole. Zhur.ob.khim. 28 no.9:2485-2489 S '58. (MIRA 11:11)

1. Khar'kovskiy gosudarstvennyy universitet.
(Benzimidazole) (Azo dyes)

RYAZANOVA, L.A.

Temperature conditions of the 25-50 km layer. Trudy TSAO no. 52:60-66 '64. (MIRA 17:7)

ACCESSION NR: AT4035465 S/2789/64/000/052/0060/0066

AUTHOR: Ryazanova, L. A.

TITLE: Characteristics of the temperature regime of the 25-50 km layer

SOURCE: Tsentral'naya aerologicheskaya observatoriya. Trudy*, no. 52, 1964. Rezul'taty* raketny*kh issledovaniy atmosfery* v period MGG i MGS (Results of atmospheric investigations by means of rockets during the period of the International Geophysical Year and International Geophysical Cooperation), 60-66

TOPIC TAGS: meteorology, air temperature, upper atmosphere, stratosphere

ABSTRACT: A study has been made of the characteristics of the temperature regime in the 25-50 km air layer, divided into two parts--25 to 30-35 km and above. The study was further subdivided into these characteristics in the polar zone (80-60°) and temperate zone (60-40°). The data used were the results of Soviet and American rocket launchings during the IGY and IGC periods; the total number of launchings analyzed was about 150, approximately evenly distributed between the two zones. It was found that the temperature field of the stratosphere in the latitude range

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ACCESSION NR: AT4035465

80-40° in the 25-50 km layer can be divided into the two mentioned sublayers on the basis of the peculiarities in its diurnal and annual variation. The boundary between these sublayers can arbitrarily be considered the lower base of the inversion. Brief changes in temperature are caused for the most part by nonradiation factors. With an increase in elevation above sea level the influence of nonradiation factors decreases. The only exception to this rule is the upper sublayer (35-50 km) of the polar latitudes in the winter season. The cause of the great temperature variability and the presence of a permanent inversion of this layer is unclear. The annual temperature changes in both latitude zones correspond for the most part to the annual variation in the radiation balance. There is a nonconformity in the upper sublayer of both zones: in the polar zone -- a displacement of minimum temperatures from the winter to the autumn months, and in the temperate zone a shift of maximum temperatures from the summer to the spring months. The causes of such displacements are completely unknown. The greatest amplitude of the annual variation in temperature is observed in the 30-40 km layer. With an increase

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ACCESSION NR: AT4035465

of latitude, that is, from 50 to 80°, the layer of maximum values of the amplitude gradually drops from 40 to 30 km. Orig. art. has: 2 tables.

ASSOCIATION: Tsentral'naya aerologicheskaya observatoriya (Central Aerological Observatory)

SUBMITTED: 00 DATE ACQ: 21May64 ENCL: 00

SUB CODE: ES NR REF SOV: 004 OTHER: 000

Card 3/3

ACCESSION NR: AT4035466 S/2789/64/000/052/0067/0074

AUTHOR: Petrov, A. A.; Ryazanova, L. A.

TITLE: Three cases of sudden warming of the Arctic stratosphere

SOURCE: Tsentral'naya aerologicheskaya observatoriya. Trudy*, no. 52, 1964. Rezul'taty* raketny*kh issledovaniy atmosfery* v period MGG i MGS (Results of atmospheric investigations by means of rockets during the period of the International Geophysical Year and International Geophysical Cooperation), 67-74

TOPIC TAGS: meteorology, stratosphere, stratospheric warming, upper atmosphere

ABSTRACT: Three cases of stratospheric warming in the Arctic are discussed in detail (February 1958, January 1960 and January 1961). The phenomenon of sudden warming can be traced to heights not less than 40 km. In January 1960 and February 1958 it was apparently limited to this height, but in 1961 and January 1958 the warming apparently took place at great heights. January 1958 observations at Fort Churchill revealed that the warming was limited to a height of 65 km. Various data indicate that the process of temperature change begins at great heights and then extends to lower-lying layers. Sudden warmings of the stratosphere are not associated with processes occurring in the troposphere, with the active layer in

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certain cases at about 40 km and in other cases still higher. These cases of stratospheric warming were associated directly with horizontal movements of stratospheric air masses, but presumably other factors are involved (vertical movements, ozone and solar activity). In 1958 the warming extended over an immense area, more than half the northern hemisphere, which for the most part became considerably warmer than usual and this persisted over a long period. Advective-dynamic processes alone cannot explain all these phenomena. The warming of 1958 differs from the other two in its time and space characteristics and may be exceptional. Exceptionally strong stratospheric warmings in different years all fall in the second half of January or in February, although sudden warmings may occur at any season of the year. Presumably strong sudden warmings must be considered a climatic peculiarity of the stratosphere. It is not excluded that the warming of 1958 is somehow associated with the turbulent solar activity of that period, manifested in strong magnetic storms and auroras. Study of such warmings requires regular rocket launchings in the polar regions, with particularly frequent observations in the second half of January and in February. Orig. art. has: 3 figures.

APPROVED FOR RELEASE: 07/19/2001 CIA-RDP86-00513R001446320013-7"

RYAZANOVA, L.A.; KHVOSTIKOV, I.A.

Processes in the stratosphere according to rocket sounding data. Meteor. issl. no.9:58-63 '65. (MIRA 19:1)

AVERKIYEV, M.S., kand. fiz.-matem. nauk; RYAZANOVA L.A., kand. geograf. nauk

Coefficients of transparency of an ideal atmosphere at different heights and their use for the estimation of the turbidity of a real atmosphere. Meteor. i gidrol. no.3: 24-26 Mr '64. (MIRA 17:3)

1. Moskovskiy gosudarstvennyy universitet i TSentral'naya aerologicheskaya observatoriya.

PETROV, A.A.; RYAZANOVA, L.A.

Three cases of sudden temperature rises in the Arctic atmosphere.
Trudy TSAO no.52:67-74 '64. (MIRA 17:7)

AVERKIYEV, M.S.; RYAZANOVA, L.A. (Biryukova)

Solar radiation of the ideal atmosphere and the turbidity of the real one. Vest. Mosk. un. Ser. 5:Geog. 18 no.5:14-25 S-O '63. (MIRA 16:11)

1. Kafedra klimatologii Moskovskogo universiteta.

L 44936-66 EWT(m)/EWP(e)/EWP(k)/T/EWP(t)/ETI IJP(c) BS/JD/GD

ACC NR: AT6024965 (N) SOURCE CODE: UR/0000/65/000/000/0008/0017

48
47
B+1

AUTHOR: Kudryavtsev, N. T.; Plaskeyev, Ye. V.; Ryazanova, L. M.

ORG: none

TITLE: Electrolytic preparation of finely divided lead and zinc powders

SOURCE: AN SSSR. Otdeleniye obshchey i tekhnicheskoy khimii. Zashchitnyye metallicheskiye i oksidnyye pokrytiya, korroziya metallov i issledovaniya v oblasti elektrokhimii (Protective metallic and oxide coatings, corrosion of metals, and studies in electrochemistry). Moscow, Nauka, 1965, 8-17

TOPIC TAGS: electrodeposition, zinc, lead, metal powder

ABSTRACT: Finely divided lead and zinc powders were prepared electrolytically from alkaline electrolytes. The effect of metal concentration in the electrolyte, cathodic current density, cathode material, and organic admixtures on the current efficiency of the metal and the dispersity of the cathodic deposits was studied. The effect of various inhibitors on the degree of oxidation of the finished products was determined. The experiments showed that as the zinc concentration increases from 0.1 to 0.3 N, the current densities being the same, the current efficiency of the powder rises, but the inhomogeneity in the size distribution of the powder particles increases. The zinc powder was found to be less homogeneous than the lead powder in particle size; its particles were coarser and had a branched dendritic shape. A certain increase in the

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L 46836-66

ACC NR: AT6024965

dispersity and homogeneity of the zinc powder was observed upon addition of sodium oleate or a mixture of the latter and water glass to the electrolyte. A technological process for preparing lead and zinc powders is proposed. Orig. art. has: 8 figures.

SUB CODE: 11,13/ SUBM DATE: 10Jan64/ ORIG REF: 012/ OTH REF: 001

Electrolysis /f

Card 2/2 blg

RYAZANOVA, M.F.

29921

I ustoichivost' bacterium coli k vozdyeistviyam nyekotorykh faktorov vnyeshnyey sryedy. Trudy voronyezhsk. Zoovyetin - ta, T. XI, 1948, s. 223-25

29921

RYAZANOVA, M. F. I UMNOVA, N. F.

O primyenyenii gyeksilryezortsina v lyechvenii askaridoza u dyetyey. Pyediatriya, 1949, No 4. s. 56-57

SO: LETOPIS' NO. 40

RYAZANOVA, M. Ya.: Master Phys-Math Sci (diss) -- "On oscillations of a flexible beam under the action of a movable load". Kiev, 1959. 10 pp (Min Higher Educ Ukr SSR, Kiev State U im T. G. Shevchenko, Chair of Theoretical Mech), 150 copies (KL, No 14, 1959, 118)

RYAZANOVA, M.Ya.

Vibrations of a beam under a weight moving along it. Nauk. zap. Kyiv. un. 16 no.16:259-266 '57. (MIRA 13:3)
(Girders--Vibrations)

BYALAMOVA, M.Ye.

Vibrations of a beam of finite or infinite length lying on an elastic base under the action of a moving load. Dop. AN URSR no.3:309-312 '65. (MIRA 18:3)

1. Kiyevskiy gosudarstvennyy universitet.

RYAZANOVA, M.Ya. (Kiyev); FILONENKO, G.G. (Kiyev)

Vibrations of an infinite elastically supported beam subjected to movable loading taking into consideration energy dissipation. Prikl. mekh. 1 no.8:128-130 '65. (MIRA 18:9)

1. Kiyevskiy gosudarstvennyy universitet.

RYAZANOVA, M.Ya.; FILONENKO, G.G. [Filonenko, H.H.]

Vibrations of a beam resting on an elastic basis under the action of system of moving loads making allowance for the inert properties of the basis. Dop. AN URSR no.4:437-440 '65. (MIRA 18:5)

1. Kiyevskiy gosudarstvennyy universitet.

RYAZANOVA, M.Ya. [Riazanova, M.IA]

Beam vibrations under the load moving along it [with summary in English]. Dop. AN URSR no.2:157-161 '58. (MIRA 11:5)

1.Kiivs'kiy derzhavniy universitet. Predstavleno akademikom AN USSR A.Yu. Ishlinskim[O.IU. Ishlins'kym].
(Girders--Vibration) (Integral equations)

AUTHOR: Ryazanova, M.Ya. SOV/21-58-2-10/28

TITLE: On the Vibrations of a Beam Under the Effect of a Load Moving Along It (O kolebaniyakh balki pod deystviyem dvizhushchegosya vdol' neye gruza)

PERIODICAL: Dopovidi Akademii nauk Ukrains'koi RSR, 1958, Nr 2, pp 157-161 (USSR)

ABSTRACT: The problem of the vibrations of a beam under the effect of a moving load has been considered by many scientists but solved only for cases containing certain simplifying conditions concerning the law of motion of the load or the ratio of the masses of the load and the beam, etc. The present paper treats this problem in a general case without any restricting conditions. It is reduced to a system of two Volterra integral equations of the first kind:

$$y = \int_0^t (t-t_1)\varphi(t_1)\,dt_1; \quad F(t) = \int_0^t L(t,t_1)\varphi(t_1)\,dt_1$$

This system is solved approximately by the substitution of a system of algebraic equations. As an example the author discusses the case of uniformly accelerated motion of a

Card 1/2

On the Vibrations of a Beam Under the Effect of a Load Moving Along It

load along the beam freely supported at the ends. There are: 1 schematic diagram, 2 tables and 5 references, 3 of which are Soviet and 2 German.

ASSOCIATION: Kiyevskiy gosudarstvennyy universitet (Kiyev State University)

PRESENTED: By Member of the AS UkrSSR, A.Yu. Ishlinskiy

SUBMITTED: May 6, 1957

NOTE: Russian title and Russian names of individuals and institutions appearing in this article have been used in the transliteration.

[redacted], N. P.

[redacted], N. P. --"Investigation of the Process of Cutting Large-Modulus Spur Gears with Work Milling Cutters." *(Dissertations for Degrees in Science and Engineering Defended at USSR Higher Educational Institutions) Min of Higher Education USSR, Kiev Order of Lenin Polytechnic Inst, Chair of Technology of Machine Construction, Kiev, 1955

SO: Knizhnaya Letopis', No. 25, 18 Jun 55

* For Degree of Doctor of Technical Sciences

ACC NR: AP6034201 (A,N) SOURCE CODE: UR/0240/66/000/010/0025/0029

AUTHOR: Ryazanova, R. A.

ORG: Moscow Hygiene Research Institute im. F. F. Erisman (Moskovskiy nauchno-issledovatel'skiy institut gigiyeny)

TITLE: Toxicity of zineb pesticide

SOURCE: Gigiyena i sanitariya, no. 10, 1966, 25-29

TOPIC TAGS: pesticide, toxicity, toxicology, plant disease control, ~~cumulative effect/ziram pesticide~~

ABSTRACT: Zineb, the zinc salt of ethylene-bis-dithiocarbamic acid used for control of plant pests, shows no cumulative effects in chronic toxicity studies. The average lethal dose ranges between 1700 and 2000 mg/kg when administered orally in single doses. Such effects as decreased cholinesterase activity, total acidity of gastric juice, hemoglobin and differential blood count produced in long term administration of the compound in daily doses of 100 mg/kg were reversible after ceasing to give the compound. Orig. art. has: 2 figures. [W.A. 50]

SUB CODE: 06/ SUBM DATE: 10Jun65/ ORIG REF: 007/ OTH REF: 002

Card 1/1 UDC: 613.63:632.952+615.777.932-099

ACC NR: AP6034201 (A,N) SOURCE CODE: UR/0240/66/000/010/0025/0029

AUTHOR: Ryazanova, R. A.

ORG: Moscow Hygiene Research Institute im. F. F. Erisman (Moskovskiy nauchno-issledovatel'skiy institut gigiyeny)

TITLE: Toxicity of zineb pesticide

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ABSTRACT: Zineb, the zinc salt of ethylene-bis-dithiocarbamic acid used for control of plant pests, shows no cumulative effects in chronic toxicity studies. The average lethal dose ranges between 1700 and 2000 mg/kg when administered orally in single doses. Such effects as decreased cholinesterase activity, total acidity of gastric juice, hemoglobin and differential blood count produced in long term administration of the compound in daily doses of 100 mg/kg were reversible after ceasing to give the compound. Orig. art. has: 2 figures. [W.A. 50]

SUB CODE: 06/ SUBM DATE: 10Jun65/ ORIG REF: 007/ OTH REF: 002

Card 1/1 UDC: 613.63:632.952+615.777.932-099

DOLGOPOL'SKIY, I.M.; RYAZANOVA, R.M.

Synthesis of derivatives of chloroheptafluoroadipic and chloropentafluoroglutaric acids. Zhur.ob.khim. 33 no.6:2073-2074 Je '63. (MIRA 16:7)

(Adipic acid) (Glutaric acid)
(Fluorine compounds)

DOLGOPOL'SKIY, I.M.; RYAZANOVA, R.M.

Some reactions of a linear dimer of trifluorochloroethylene. Zhur.ob.khim. 32 no.5:1451-1455 My '62. (MIRA 15:5)
(Ethylene) (Chemistry, Organic--Synthesis)

11.2214
15.9206

27500
S/063/61/006/003/004/004
A051/A129

AUTHORS: Ryazanova, R.M., Dolgopol'skiy, I.M., Klebanskiy, A.L.

TITLE: Perfluorobutadiene in the reaction of diene synthesis

PERIODICAL: Zhurnal Vsesoyuznogo Khimicheskogo Obshchestva im.D.I.Mendeleyeva, v.6, no. 3, 1961, 356 - 357

TEXT: The authors have studied the behavior of hexafluorobutadiene in diene synthesis reactions, characteristic for a conjugated system of double bonds. They investigated the reaction of hexafluorobutadiene with maleic anhydride, 1,4-naphthaquinone, acrylonitrile, styrene, methylmethacrylate, divinyl and isoprene. Hexafluorobutadiene was synthesized according to Ref. 4: Ch. Slesser, S.R. Schram, Preparation, properties and technology of fluorine and organic fluoro-compounds, N.Y. - Toronto - London, 1951. It was established that hexafluorobutadiene does not react with maleic anhydride nor with 1,4-naphthaquinone, both without a solvent as well as with a solution of toluene. The reactions with acrylonitrile, styrene and methylmethacrylate resulted in the production of addition products with satisfactory yields, boiling within a narrow temperature range. Theoretically it was expected that as a result of the interaction bet-

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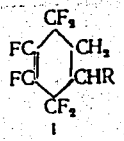
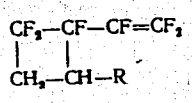
27500
S/063/61/006/003/004/004
A051/A129

Perfluorobutadiene ...

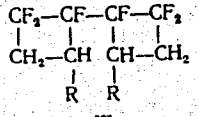
ween acrylonitrile and styrene with hexafluorobutadiene one of the following structures would result:



I



II



III

where R = CN, C_6H_5

The absence of structures (I) was determined from data of infrared spectra of these compounds. In the fractionation of the product of interaction between hexafluorobutadiene and divinyl and isoprene, two fractions each time were obtained. The determination of the molecular weights, calculation of the molecular refractions and an analysis for unsaturation indicated that the low-boiling fractions were an addition product of one molecule of hexafluorobutadiene and one molecule of a diene hydrocarbon. One of the following isomers was theoretically expected

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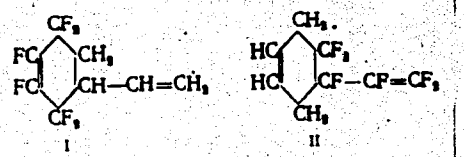
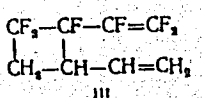
27500
S/063/61/006/003/004/004
A051/A129

Perfluorobutadiene ...

from the addition product and divinyl:

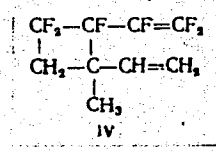


I II

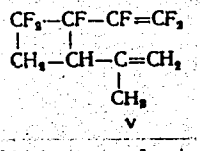


III

For the addition product and isoprene, in addition to the listed structures of type (I) and (II); the cyclobutane derivative can occur in the form of two isomers determined by the position of the group-CH_3 with respect to the cycle:



IV



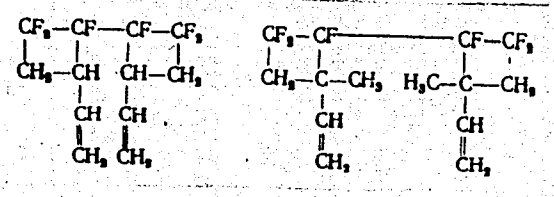
V

The high-boiling fractions of the addition products with divinyl and isoprene were assumed to be addition products of the second molecule of the diene hydro-

Card 3/4

Perfluorobutadiene ...

carbon to the remaining perfluorovinyl group. Based on the properties mentioned, the structure of these compounds is given as:



There are 4 references: 3 Soviet-bloc and 1 non-Soviet-bloc.

ASSOCIATION: Vsesoyuznyy nauchno-issledovatel'skiy institut sinteticheskogo kauchuka im. S.V. Lebedeva (All-Union Scientific Research Institute of Synthetic Rubber im. S.V. Lebedev)

Card 4/4

RYAZANOVA-SOLNTSEVA, M.S.

Effect of some sulfanilamide preparations on the electric sensitivity of the human visual analyzor and the bioelectric activity of animal brain. Nauch. dokl. vys. shkoly; biol. nauki no.3:75-80 '60. (MIRA 13:8)

1. Rekomendovana kafedroy farmakologii 1-go Moskovskogo meditsinskogo instituta im. I.M. Sechenova.
(BRAIN) (ELECTROPHYSIOLOGY) (SULFANILAMIDE)

KALININ, V.I., prof., doktor fiziko-matem. nauk [deceased];
AKINDINOV, V.V.; GERSHTEYN, G.M.; DASHENKOV, V.M.; YEVSEYEV, V.I.; IL'IN, V.S.; KOROSTELEV, G.N.; LUCHININ, V.D.; NAUMENKO, Yu.P.; RYAZANOVA, T.P.; SEDIN, V.A.; TOLSTIKOV, V.A.; SHTYROV, A.I.; AVILOV, B.I., red.; ZENIN, V.V., tekhn. red.

[Practical work in radio physics] Radiofizicheskii praktikum. Izd.2., dop. i perer. Saratov, 1961. 277 p. (MIRA 15:1)

1. Saratov. Universitet. 2. Kafedra radiofiziki Saratovskogo universiteta im. N.G.Chernyshevskogo (for all except Avilov, Zenin).

(Radio)

RYAZANOVA, T. P.

PA 236T54

USSR/Electronics - Magnetron — Oct 52

"Theory of the Multisegmented Magnetron," V. I. Kalinin and T. P. Ryazanova

"Zhur Tekh Fiz" Vol 22, No 10, pp 1592-1598

Authors give a further development of the results, obtained by A. A. Slutskin ("Zhur Tekh Fiz," Vol 17, No 4, 425, 1947), in the case where consideration is given to the modulation of density of tangential electron flow as a result of the excitation of the

236T54

multisegmented magnetron. Cites related works of V. M. Glagolev (1949) and I. I. Vasserman (1946). Analyze the energy interaction of electron flow on variable fields with any number of slots.

236T54

1. RYAZANOVA, T.P., KALININ, V.I.
2. USSR (600)
4. Magnetrons
7. Theory of a multi-section magnetron. Zhur.tekh.fiz 22 no. 10, 1952

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

FEDOTOVA, Yekaterina Aleksandrovna; RYAZANOVA, V., redaktor; RAKOV, S.I., tekhnicheskiy redaktor.

[How we improve the quality of cloth] Kak my uluchshaem kachestvo tkanei. [Moskva] Izd-vo VTsSPS Profizdat, 1954. 60 p. (MLRA 8:5)

1. Predsedatel' fabkoma Moskovskoy fabriki "Osvobozhdennyy trud." (Textile industry)

RYAZANOVA, V., redaktor.

[Our work practice in problems of labor protection] Nash opyt raboty po okhrane truda. Moskva, Profizdat, 1953. 47 p. (MLRA 7:6)
(Industrial hygiene)

PODZERKO, V.; RYAZANOVA, V.; redaktor; KIRSANOVA, N., tekhnicheskiy redaktor

[Metalworkers' schools of advanced experience] Shkoly peredovogo opyta metallurgov. [Moskva] Izd-vo VTsSPS Profizdat, 1954. 87 p. (Metalwork--Study and teaching) (MLRA 8:7)