

ACCESSION NR: AP4043519.

uravneniyakh matematicheskoy fiziki. Matem. sb. vol. 14 (56), vy*p. 1-2, 1944) a Fredholm type of integral equation was derived for Φ . Illustrative examples were worked out for specific cases of given pressure profiles. Orig. art. has: 25 formulas and 3 figures.

ASSOCIATION: Institut mekhaniki AN SSSR (Institute of Mechanics, AN SSSR)

SUBMITTED: 31Jun63

ENCL: 00

SUB CODE: ME

NO REF SOV: 005

OTHER: 002

Card 3/3

AFANAS'YEV, Ye.F. (Moskva)

Impact of a body against a thin plate lying on the surface of
a compressed liquid. Prikl. mat. i mekh. 28 no.5:868-879 S-0
'64. (MIRA 17:11)

L 15689-65 EWT(1)/EWP(m)/FCS(k)/EWA(h) P3-4/P1-4 AEDC/ASD-3/AFPTD/
APGC/AEDC(=)/SSD/SSD(b) BSD AFM: APL 1-1 AEDC(=) RM

ACCESSION NR: AP4049573

5/0258/64/004/004/0650/0658

AUTHOR: Afanus'yev, Ye. F. (Moscow)

TITLE: Effect of a weak shock wave on a body lying on the boundary dividing two media

SOURCE: Inzhenernyy zhurnal, v. 4, no. 4, 1964, 650-658

TOPIC TAGS: shock wave, diffraction study, compressible fluid, displacement reaction

ABSTRACT: The author studies the plane diffraction problem of the effect of a shock wave on a body with rectangular section on the boundary dividing two media of the incompressible fluid type (the second Lamé constant $\mu = 0$). He finds the forces $F_1(t)$ and $F_2(t)$ acting on the upper and lower boundaries respectively, and the law governing the motion of the body. He considers the initial time interval $0 \leq t \leq T$. He uses the fact that, for $t \leq T$, the half-spaces $y \in [0, t)$ and $y \in (t, \infty)$, touching the upper and lower boundaries of the body respectively, do not mutually influence the pressure fields in them. He first studies two auxiliary problems: A) on diffraction of the wave $p = P(t-y-h)$ with respect

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L 15689-65

ACCESSION NR: AP4049573

to a rectangular wedge ($x \leq 0, y \geq -h$) in fluid I and displaced in the direction of the Oy axis at the rate $V(t)$; and B) on the impression of a rigid half-stamp ($x \leq 0, y \leq 0$) according to the law $V(t)$ from fluid I into the half-space $y > 0$ filled by compressible fluid II. These are handled via Laplace transforms which lead to a Fredholm equation; the latter is solved by standard techniques. From the solution of problem A, the author is able to find a solution for the problem of the effect of a wave of the upper boundary of the wedge, and the solution of B allows him to obtain the pressure distribution at the lower boundary. Two particular cases are treated. Results are given in formulas and 2 figures.

ASSOCIATION: Institut mekhaniki AN SSSR (Institute of Mechanics, AN SSSR)

SUBMITTED: 24Dec63

ENCL: 00

SUB CODE: ME

NO REF SOV: 004

OTHER: 000

Card 2/2

AFANAS'YEV, Ye.F. (Moskva)

Action of a weak shock wave on an obstacle. Inzh.zhur. 4 no.3:451-460
'64. (MIRA 17:10)

1. Institut mekhaniki AN SSSR.

AFANAS'YEV, Ye.F. (Moskva)

Effect of a weak shock wave on a body located on the boundary
of separation of two media. Inzh. zhur. 4 no.4:650-658 '64
(MIRA 18:2)

L 58292-65

ERT(1)/ENP(m)/ENP(w)/EWA(d)/FCS(k)/EWA(1) Pd-1 EM

UR/0040/64/028/005/0868/0879

ACCESSION NR: AP5019477

AUTHOR: Afanas'yev, Ye. F.

TITLE: Body striking a thin plate lying in the surface of a compressible fluid

SOURCE: Prikladnaya matematika i mekhanika. v. 28, no. 5, 1964, 868-879

TOPIC TAGS: flat plate model, fluid surface, compressible fluid, differential equation

ABSTRACT: The plane problem of a body of finite width striking a thin plate lying on the surface of a compressible fluid is discussed. The problem is set up and for some initial time interval reduced to the solution of an integral differential equation in which the integral term has a difference kernel with a semi-finite increment in the variables. The solution of the equation is given in the form of quadratures. The existence of the solution is proved. The problem is then solved for any given time. Simple formulas are given for calculating the deformation of the

Card

1/2

L 58292-65

ACCESSION NR: AP5019477

plate and the velocity of the body after striking the plate. The effect of the pla
plate on a body striking a fluid is analyzed. Orig. art. has: 3 figures, 57 formulas.

ASSOCIATION: none

SUBMITTED: 28Mar64

ENCLOSURE

REF CODE: ME

NR REF GOV: 000

OTHER: 00

PFS

AR
Card 2/2

ACC NR: AR6033808 SOURCE CODE: UR /0124/66/000/007/V020/V021

AUTHOR: Afnas'yev, Ye. F.

TITLE: Action of shock waves on an obstacle .

SOURCE: Ref. zh. Mekhanika, Abs. 7V159

REF SOURCE: Tr. 5th Sessii Uch. soveta po narodnokhoz. ispol'z. vzryva.
Frunze, Ilim. 1965, 26-33

TOPIC TAGS: shock wave, shock wave interaction, Helmholtz equation, Fredholm equation, Dirac delta function

ABSTRACT: The problem of the interaction of an absolutely hard moving plate of finite width with a plane shock wave in a linearly elastic medium is solved in an acoustic approximation. The disturbance pressure satisfies the wave equation and the boundary condition on the plate. By means of the Laplace transform with respect to time the problem is reduced to a solution of the Helmholtz equation with the Neumann condition in the half-plane. The solution of the Helmholtz equation is represented in the integral form by means of the MacDonald function. The unknown function participating in the solution of the Helmholtz equation is found from the condition of the continuity of pressure outside the plate which results in

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ACC NR: AR6033808

the solution of a Fredholm integral equation of the second kind. The Fredholm equation is solved by the method of successive approximations. The expression derived for the pressure drop value on the plate includes terms of the incident, reflected and diffraction waves. Curves of pressure distribution on a fixed plate of finite width are given for a step wave as function of the time elapsed since the collision. The speed of plate displacement is determined for the initial movement of time with the action of a stepwise impulse and an impulse having the intensity of the Dirac δ -function. A. G. Gorshkov. [Translation of abstract]

SUB CODE: 20/

Card 2/2

L 2784-66 EWT(1)/EWP(m)/FCS(k)/EWA(1)

ACCESSION NR: AP5021524

UR/0258/65/005/004/0612/0622
534.26

38
B

44, 55
AUTHOR: Afanas'yev, Ye. F. (Moscow)

TITLE: One problem in shock wave diffraction

7, 44, 55
SOURCE: Inzhenernyy zhurnal, v. 5, no. 4, 1965, 612-622

TOPIC TAGS: shock wave, wave diffraction, shock wave diffraction, shock wave interaction

ABSTRACT: Using linear approximation, the plane problem of shock wave interaction (including diffraction and wave effects) with a shape shown in Fig. 1 on the Enclosure is considered. Assuming an arbitrary wave and pressure profile $p_1 = P(x, y, t)$, the solutions to case 1a and 1b (see Fig. 1 on the Enclosure) are assumed as

$$\begin{aligned}
 &P_y(x, 0, t) \neq 0, \\
 &p = p_1(x, y, t) \quad (y > 0, -1 \leq x < \infty), \\
 &p = P(x, y, t) + P(x, -y, t) + p_1(x, y, t) \quad (y < 0),
 \end{aligned}$$

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L 2784-66

ACCESSION NR: AP5021524

and $P_x(-1, y, t) \neq 0$ or $P_y(x, 0, t) \neq 0$.

$$p = P(x, y, t) + P(-x-2, y, t) + p_+(x, y, t) \quad (y > 0, -1 < x < \infty)$$

$$p = P(x, y, t) + p_-(x, y, t) \quad (y < 0).$$

respectively (where

$$x_1 = x/l, y_1 = y/l, t_1 = ct/l, P_1 = P/\rho c^2, p_1 = p/\rho c^2, v_1 = v/c.$$

are nondimensional parameters and the subscript 1 has been dropped in the equations). The functions $p_+(x, y, t)$ and $p_-(x, y, t)$ have to satisfy the wave equation

$$\frac{\partial^2 p_{\pm}}{\partial x^2} + \frac{\partial^2 p_{\pm}}{\partial y^2} = \frac{\partial^2 p_{\pm}}{\partial t^2},$$

and appropriate initial and boundary conditions. The solution to the wave equation is expressed in the form of wave potentials, and an integral Laplace transformation is performed. This yields an expression in terms of McDonald functions.

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L 2784-66

ACCESSION NR: AP5021524

The Wiener-Khopfa method is used to transform this to a Fredholm equation of the second kind in terms of integrals which simplify for given $P(x,0,t)$ functions. Performing the inverse transformations, an equation for $v(x,t)$ (normal fluid velocity for $y = 0$) is obtained, resulting in a set of equations which permits evaluation of the pressure at any point in the region and on the boundaries. Equations are also derived for the pressure drop $\Delta p(x,t)$ on the plate and the force $F(t)$ and moment $M(t)$ on the plate due to the shock wave. The use of the equations is demonstrated for the case of a plane wave of constant intensity $P(t) = 1$ for $t \geq 0$. It is found that the pressure and flow fields equalize in the region and the force and moment effects are reduced to ≈ 0 for $t > 3$. Orig. art. has: 2 figures and 43 formulas.

ASSOCIATION: none

SUBMITTED: 21Dec64

ENCL: 01

SUB CODE: ME

NO REF SOV: 002

OTHER: 000

Card 3/4

L 2784-66

ACCESSION NR: AP5021524

ENCLOSURE: 01

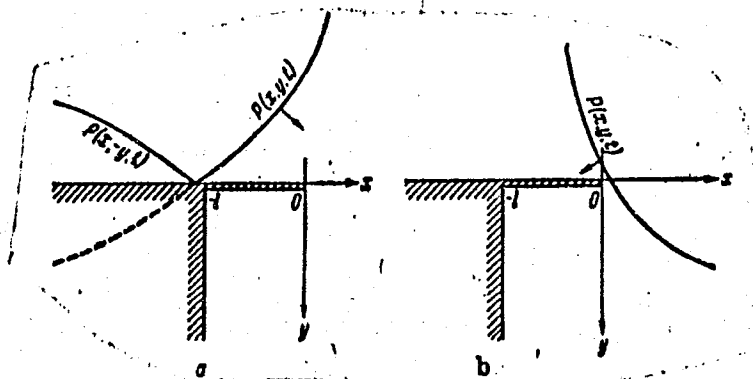


Fig. 1.

Shock interaction geometry

Card 4/4 *md*

L 55247-65 EWT(d)/EWT(1)/EPP(c)/EPP(n)-2/EWG(m)/EPR Pr-4/Pg-4/Ps-4/Pa-4
IJP(c) GW
ACCESSION NR: AP5015221 UR/0376/65/000/005/0663/0670

AUTHOR: Afanas'yev, Ye. F. 37

TITLE: Problems for the heat equation with mixed boundary conditions 36
B

SOURCE: Differentsial'nyye uravneniya, no. 5, 1965, 663-670

TOPIC TAGS: differential equation, boundary problem, heat exchange, integral equation 16 21

ABSTRACT: The author presents, in the form of the potential of a simple layer, a solution of certain boundary value problems for the heat equation

$$\frac{\partial T}{\partial x^2} + \frac{\partial T}{\partial y^2} = \frac{\partial T}{\partial t} \quad (1)$$

in the half plane with two discontinuity points in the boundary conditions. These solutions are used in problems of diffusion, nonstationary filtration, and heat flow. The solutions are found in quadratures, or in terms of quadratures, with the boundary conditions leading to integral equations of the first kind with a finite or semi-infinite interval as the range of the variables. Eng. art. has: 37 formulas.

Card 1/2

L 55247-65

ACCESSION NR: AP5015221

ASSOCIATION: Institut mekhaniki AN SSSR (Institute of Mechanics, AN SSSR)

SUBMITTED: 30Oct64

DATE:

SUB CODE: MA

NO REF SOV: 003

OTHER: 001

Card

gw
2/2

BARANOV, A.F., redaktor; BIZYUKIN, D.D., redaktor; VAKHNIN, M.I., otvetstvennyy redaktor toma, professor, doktor tekhnicheskikh nauk; VEDENISOV, B.H., redaktor; IVLIYEV, I.V., redaktor; MOSHCHUK, I.D., redaktor; RUDOY, Ye.F., glavnyy redaktor; SOKOLINSKIY, Ya.I., redaktor; SOLOGUBOV, V.N., redaktor; SHILEVSKIY, V.A., redaktor; ALFEROV, A.A., inzhener; ANASHKIN, B.T., inzhener; AFANAS'YEV, Ye.V., laureat Stalinskoy premii, inzhener; BELENKO, K.M., dotsent; BORISOV, D.P., dotsent, kandidat tekhnicheskikh nauk; ZHIL'TSOV, P.N., inzhener; ZBAR, N.R., inzhener; IL'YENKOV, V.I., dotsent, kandidat tekhnicheskikh nauk; KAZAKOV, A.A., kandidat tekhnicheskikh nauk; KRAYZMER, L.P., kandidat tekhnicheskikh nauk; KOTLYARENKO, N.F., dotsent, kandidat tekhnicheskikh nauk; MAYSHEV, P.V., professor, kandidat tekhnicheskikh nauk; MARKOV, M.V., inzhener; NELEPETS, V.S., dotsent, kandidat tekhnicheskikh nauk; NOVIKOV, V.A., dotsent; ORIOV, N.A., inzhener; PETROV, I.I., kandidat tekhnicheskikh nauk; PIVKO, G.M., inzhener; POGODIN, A.M., inzhener; RAMLAU, P.N., dotsent, kandidat tekhnicheskikh nauk; ROGINSKIY, V.N., kandidat tekhnicheskikh nauk; RYAZANTSEV, B.S., laureat Stalinskoy premii, dotsent, kandidat tekhnicheskikh nauk; SNARSKIY, A.A., inzhener; FEL'DMAN, A.B., inzhener; SHASTIN, V.A., laureat Stalinskoy premii, inzhener; SHUR, B.I., inzhener; GONCHUKOV, V.I., inzhener, retsenzent; NOVIKOV, V.A., dotsent, retsenzent; AFANAS'YEV, Ye.V., laureat Stalinskoy premii, retsenzent;

[Technical handbook for railroad men] Tekhnicheskii spravochnik zheleznodorozhnika. Vol. 8. [Signaling, central control, block system, and communication] Signalizatsiia, tsentralizatsiia, blokirovka, sviaz'. Red. kollegiia A.F.Baranov [i dr.] Glav.red. E.F.Rudoi. Moskva, Gos. transp. zhel-dor. izd-vo, 1952. 975 p. (Continued on next card)

BRYLEYEV, A.M., laureat Stalinskoy premii, inzhener; GAMBURG, Ye.Yu., inzhener, retsenzent; GOLOVKIN, M.K., inzhener, retsenzent; KAZAKOV, A.A., kandidat tekhnicheskikh nauk, retsenzent; KUT'IN, I.M., dotsent, kandidat tekhnicheskikh nauk, retsenzent; LEONOV, A.A., inzhener, retsenzent; SEMENOV, N.M., laureat Stalinskoy premii, inzhener, retsenzent; CHERNYSHEV, V.B., inzhener, retsenzent; VALUYEV, G.A., inzhener, retsenzent; METTAS, N.A., laureat Stalinskoy premii, inzhener, retsenzent; NOVIKOV, V.A., dotsent, retsenzent; PIVOVAROV, A.L., inzhener, retsenzent; POGODIN, A.M., inzhener, retsenzent; KHODOROV, L.R., inzhener, retsenzent; PIVOVAROV, A.L., inzhener, retsenzent; POGODIN, A.M., inzhener, retsenzent; KHODOROV, L.R., inzhener, retsenzent; SHUPOV, V.I., kandidat tekhnicheskikh nauk, retsenzent; KLYKOV, A.F., inzhener, retsenzent; YUDZON, D.M., tekhnicheskii redaktor; VERINA, G.P., tekhnicheskii redaktor.

[Technical handbook for railroad men] Tekhnicheskii spravochnik zheleznodorozhnika. Vol. 8. [Signaling, central control, block system, and communication] Signalizatsiia, tsentralizatsiia, blokirovka, sviaz'. Red. kollegiia A.F.Baranov [i dr.] Glav.red. E.F.Rudoi. Moskva, Gos. transp. zhel-dor. izd-vo, 1952. 975 p. (Card 2) (MLBA 8:2)
(Railroads--Signaling) (Railroads--Communication systems)

AFANAS'EV, I. V.

Ustroistva STsB i ikh soderzhanie; uchebnik dlia tekhn. shkol i zh.-d. uchilishch (Working principles and maintenance of signalling, centralization and block systems; textbook for technical and railroad schools). Moskva, Transzheldorizdat, 1953. 607 p.

SO: Monthly List of Russian Accessions, Vol 7, No 8, Nov. 1954

AFANAS^YEV, Yevgeniy Vladimirovich; GOLOVKIN, Mikhail Kapitanovich;
MARENKOVA, G.I., inzh., red.; BOBROVA, Ye.N., tekhn.red.

[Operation of signaling, centralized control, and block systems
in the railroad transportation system] Eksploatatsiia ustroystv
STsB na zheleznodorozhnom transporte. Moskva, Gos. transp.
zhel-dor.isd-vo, 1958. 266 p. (MIRA 11:12)
(Railroad--Signaling)

AFANAS'YEV, Yevgeniy Vladimirovich; BUZINIYER, Mikhail Iosifovich;
MITIN, Afanasiy Timofeyevich; KHABINSKAYA, Flora Abramovna;
KRISHTAL', L.I., red.; BOBROVA, Ye.N., tekhn.red.

[Economics and organization of signaling and communications]
Ekonomika i organizatsiia khoziaistva signalizatsii i sviazi.
Moskva, Gos.transp.zhel-dor.izd-vo, 1959. 189 p. (MIRA 13:2)
(Railroads--Signaling)
(Railroads--Communication systems)

AFANASYEV, Ye. V.

"Cybernetics and Transportation."

report presented at the Symp on Use of Cybernetics on Railways, Paris, 4-13 Nov 63.

LOSHCHININ, A.V.; TERENT'YEV, N.K.; TYURIKOV, A.I.; AFANAS'YEV,
Ye.V., retsenzent; PROKHOROV, A.A., retsenzent; PESKOVA,
L.N., red.; ZHDANOV, P.A., red.; BOBROVA, Ye.N., tekhn.red.

[Safety measures and industrial hygiene in railroad transportation] Tekhnika bezopasnosti i proizvodstvennaia sanitariia na zheleznodorozhnom transporte; spravochnaia kniga. Izd.2., dop. Moskva, Transzheldorizdat, 1963. 535 p.
(MIRA 17:2)

AFANASZJEV, E.V. [Afanas'ev, Evgeniy Vladimirovich], fomernek

Automation, telemechanics and improvement of telecommunication installations on the railway lines in the Soviet Union. Vasut 13 no.12:31-3 of cover D '63.

1. Tavkozlo- es Biztositoberendezesi Foigazgatosag.

AFANAS'YEV, Ye.V.

New developments in the engineering operation of railroads in
the U.S.S.R. Avtom. telem. i sviaz' 8 no. 3:5-6 Mr '64.
(MIRA 17:5)

1. Glavnyy inzh. Glavnogo upravleniya signalizatsii i svyazi
Ministerstva putey soobshcheniya.

AFANAS'YEV, Ye.V.

Develop initiative among inventors and efficiency experts.
Avtom., telem. i sviaz' 8 no.10:1-3 0 '64.

(MIRA 17:11)

1. Glavnyy inzh. Glavnogo upravleniya signalizatsii i svyazi
Ministerstva putey soobshcheniya.

AFANAS'YEV, Ye. Ye.

SOV/144-58-9-18/18

AUTHOR: Gikis, A. F., Candidate of Technical Sciences, Docent

TITLE: Inter-University Scientific Conference on Electric Measuring Instruments and Technical Means of Automation (Mezhvuzovskaya nauchnaya konferentsiya po elektroizmeritel'nym priboram i tekhnicheskim sredstvam avtomatiki)

PERIODICAL: Izvestiya Vysshikh Uchebnykh Zavedeniy, Elektromekhanika, 1958, Nr 9, pp 130-135 (USSR)

ABSTRACT: The conference was held at the Leningradskiy elektrotekhnicheskii institut imeni V. I. Ul'yanova (Lenin) (Leningrad Electro-technical Institute imeni V. I. Ul'yanov (Lenin)) on November 11-15, 1958. The representatives of eleven higher teaching establishments and three research institutes participated and a large number of specialists of various industrial undertakings were present.

Corresponding Member of the Ac.Sc. USSR Professor K. B. Karandeyev presented the paper "Application of semi-conductors for metering purposes". Assistant G. N. Novopashenny presented the paper "Metering amplifiers with semi-conductor triodes". Docent Ye. Y. Novogel'tsev, Assistants N. A. Smirnov, Ye. Ye. Afanas'yev and Ye. F. Ugryumov (Leningrad Electrotechnical Institute) presented the paper "Semi-conductor precision instrument for measuring the frequency by the method of counting impulses". The described instrument enables measuring the frequency of harmonic oscillations which occur once only; the frequency of the input oscillations is amplified 24 times and the error in measurement does not exceed 2×10^{-3} . A number of papers were presented on measuring and producing instruments based on recently discovered physical phenomena.

АФАНАСИ'ЕВ, Я. Я.

8(2), 9(6)
AUTHOR:

Anisimov, V. I., Engineer

507/19-59-3-13/15

TITLE:

The Inter-university Scientific Conference the Technical
in Electrical Engineering (Leningrad Institute
of Electrical Engineering named V. I. Ulyanov (Lenin)) in
November 1959. It was attended by more than 500 representatives
of universities, scientific research institutes, of the OMD,
the MES (Special Design Office), of industrial and other
organizations. The main technical problems discussed in
the conference were: Control in opening the conference
and of measuring technique for the outstanding importance of automation
in the economy. K. M. Shumilovskiy in his lecture reported on
"The Trends in the Development of Methods of Radioactive
Control of Production Data" and outlined the extensive

PERIODICAL:

Priborostroyeniye. 1959. Sr 3. pp 30-31 (USSR)

ABSTRACT:

This Conference was held at the Leningradskiy elektrotekhicheskiy
institut im. V. I. Ulyanova (Lenina) (Leningrad Institute
of Electrical Engineering named V. I. Ulyanov (Lenin)) in
November 1959. It was attended by more than 500 representatives
of universities, scientific research institutes, of the OMD,
the MES (Special Design Office), of industrial and other
organizations. The main technical problems discussed in
the conference were: Control in opening the conference
and of measuring technique for the outstanding importance of automation
in the economy. K. M. Shumilovskiy in his lecture reported on
"The Trends in the Development of Methods of Radioactive
Control of Production Data" and outlined the extensive

Card 1/5

Possibilities of using radioactive methods in such control.
Ye. G. Shramkov and S. A. Spector reported on a new method
of measuring heavy direct current with the help of the
problem of the resonance of a reactive amplifier in
automated and measuring technique. A. V. Fatejev
reported on the present-day state on the prospects of
automatic control technique. Ya. Z. Tsyplin investigated
some peculiar features of and the prospects offered by
automatic pulse systems. The lecture by M. G. Boldyrev
dealt with problems of stability of discrete automatic
systems. V. B. Ushakov discussed the main trends in the
development of mathematical analog computers and of
computers designed for industrial use. The report by
V. B. Ryabyshkin deals with an electronic analog correlator
for the calculation of correlation functions in the
investigation of random signals. H. I. Turgensov
reported the most important methods which guarantee
both an active and passive freedom from disturbances in

Card 2/5

discrete selective systems. Ye. V. Movson'tsev discussed
problems of averaging, differentiation, and balancing
of time-dependent functions which can be represented by
electric signals. V. P. Skuridin investigated the
devices with polarized relays. A. V. Frenkel and Ye. M.
Dubinin reported on instrument management for automatic
instruments with automatic management. B. Ushakov and
M. I. Kopylov reported on a computer for the automatic
centralized control of production specifications. M. M.
Ushakov discussed fundamental problems of the theory of
automatic measuring instruments with an inverse conversion
for the measurement of non-electric quantities. Ye. I.
Tsyplakov dealt with problems of the construction of
automatic d. c. potentiometers with high accuracy. D. I.
Malov discussed a high-precision automatic d. c. bridge
for digital computations. The participants in the conference
listed below discussed the following subjects (which, however,
however, are not given by the exact order of the titles):
Y. A. Isvintsov The planning of measuring elements for

Card 3/5

PAGE - 2

The Inter-university Scientific Conference on
Electrical Measuring Instruments and on the Technical
Means of Automation 507/119-59-3-13/15

accurate automatic quotient-type meters in digital computations.
 E. R. Dubovoi: Methods of determining the dynamic errors
 of a magnetoelectric oscilloscope by simulation. P. P. Ornat'skiy:
 Problems in measuring electric quantities at extremely low
 frequencies by electrical measuring instruments of various
 systems. L. F. Kulikovskiy: Measuring instruments of various
 systems. A. S. Zorikratov: Automatic bridge types of a. c. compensators
 suited for the control of the parameters of c. compensators
 series production. L. I. Stolov: Some characteristics of
 magnetoelectric induction motors which can be used in seismic
 technique and automation. D. A. Borodayev: Ultrasonic
 pressure and liquid level gauges. Yu. A. Skripnik: The
 circuitry of a phase-sensitive commutation indicator for
 C. a. equilibrium bridges. E. F. Surid: The application
 of least-squares methods in the design of the apparatus
 and the circuitry used in the measurement of non-electric
 quantities. V. A. Fermit: Method of increasing the
 sensitivity of oxygen gas analyzers. P. V. Solvitskiy:
 Design of apparatus for measuring vibration quantities.

Card 4/5

V. V. Pasaykov: Methods for measuring vibration quantities.
 resistors and possibilities of non-linear semiconductor
 circuitry in automation and their application to
 measuring techniques. G. F.
 Morozovskiy: Development of measuring instruments with
 semiconductor triodes. Ya. V. Korovin: Amplifiers with
 frequency meter operating according to the pulse-conductor
 principle. P. C. Sikitin and A. Beskuladnikov: Methods of
 measuring the magnetic field strength by means of biasing
 resistors and transducers operating on the Hall effect
 principle. The resolution was adopted by the closing plenary
 session of the conference, which indicates ways of
 improving and coordinating scientific research work in the
 field of automation, electric measuring- and computing
 technique.

Card 5/5

NEVOSEL'TSEV, Ya.V. [deceased]; AFANAS'YEV, Ye.Ye.; SMIRNOV, N.A.;
UGRYUMOV, Ye.P.

Transistor instrument for high-precision measurements of frequencies.
Izv.vys.ucheb.zav.; prib. 3 no.2:30-43 '60. (MIRA 14:4)

1. Leningradskiy elektrotekhnicheskiy institut imeni V.I.Ul'yanova
(Lenina). Rekomendovana kafedroy schetno-reshayushchey tekhniki.
(Frequency measurements)

SMOLOV, Vladimir Borisovich; LEBEDEV, Andrey Nikolayevich;
SAFOZHNIKOV, Konstantin Andreyevich; DUBININ, Yakov
Ivanovich; SMIRNOV, Nikolay Anisimovich; BODUNOV,
Vasiliy Pavlovich; UGRYUMOV, Yevgeniy Pavlovich;
YATSENKO, Vladimir Pavlovich. Prinimali uchastiye:
BALASHOV, Ye.P.; AFANAS'YEV, Ye.Ye.; SEMENOVA, M.T.,
red.; GRIGORCHUK, L.A., tekhn. red.

[Electric analog computers] Vychislitel'nye mashiny
nepreryvnogo deistviia. [By] V.B.Smolov i dr. Moskva,
Vysshaia shkola, 1964. 552 p. (MIRA 17:3)

BELAKOVSKIY, Ya. AFANAS'YEV, Yu., kandidat tekhnicheskikh nauk.

Universal lever screw clamp for assembling boiler shells. Mor.flot
16 no.11:24-25 N '56. (MIRA 10:1)

1. Starshiy prepodavatel' kafedry sudoremonta (for Belakovskiy).
2. Odesskiy institut inzhenerov morskogo flota (for Afanas'yev).
(Ships--Maintenance and repair)

AFANAS'YEV, Yu., kand. tekhn.nauk, dots.

Protecting hulls from corrosion and growths. Mer. flot 18 no.12:
19 D '58. (MIRA 12:1)

1.Odesskiy institut inzhenerov morskogo flota.
(Hulls (Naval architecture)) (Corrosion and anticorrosives)

AFANAS'YEV, Yu., kand. tekhn. nauk, dots.

Using compressed air and the vacuum method for testing the
impenetrability of ship compartments. Mor. flot 19 no.7:30-32
J1 '59. (MIRA 12:10)

1.Odesskiy institut inzhenerov morskogo flot.
(Ships--Testing)

AFANAS'YEV, YU A.

AID P - 4981

Subject : USSR/Aeronautics - rockets
Card 1/1 Pub. 135 - 9/26
Author : Afanas'yev, Yu. A., Eng.-Maj., Candid. of Tech. Sci.
Title : ~~USSR/Aeronautics - rockets~~
Aircraft rocket armament
Periodical : Vest. vozd. flota, 9, 51-56, S 1956
Abstract : General description of air-to-air and air-to-ground rockets and of their mounting on the airplane rocket launchers is given. Four photos, 5 sketches. The article is of informative value.
Institution : None
Submitted : No date

KHUMFRIS, Dzh. [Humphries, John],; ZAKHAROVA, Ye.G., [translator],; PAVLOV,
N.A., [translator],; APANAS'YEV, Yu. A., kand. tekhn. nauk, red.;
DEYEV, M.H., red., SOKOLOVA, T.S., tekhn. red.

[Rockets and guided missiles] [Translated from the English] Raketnye
dvigateli i upravliaemye snaryady. . Moskva, Izd-vo inostr. lit-ry,
1958. 302 p. (MIRA 11:11)

(Missiles)

(Rockets(Aeronautics))

AMARIAN, L.S.; BEBKOVICH, I.I.; LAMARINA, G.I.; ...

Mechanical stamping press for ...
plates. inzh. tekhn.-ekon. inform. ...
nauch. i tekhn. inform. ... (MIR, 1981)

S/020/62/146/001/010/016
B101/B144

AUTHORS: Nikolayev, A. V., Corresponding Member AS USSR, D'yachenko,
O. R., Afanas'yev, Yu. A.

TITLE: Joint extraction of uranyl nitrate and cerium(IV) nitrate
by tributyl phosphate (TBP)

PERIODICAL: Akademiya nauk SSSR. Doklady, v. 146, no. 1, 1962, 102-103

TEXT: The partition coefficients K_U and K_{Ce} were determined in the
system $UO_2(NO_3)_2 - Ce(NO_3)_4 - 1.5 N HNO_3 - H_2O - TBP$ at $25^\circ C$. Results:
(1) Uranyl nitrate and cerium(IV) nitrate, separately, are extracted
almost equally by TBP. With 20.4 g/l $UO_2(NO_3)_2$ in the aqueous phase, K_U
was 15.2; with 223 g/l it was 2.60. With 40.3 g/l $Ce(NO_3)_4$ the K_{Ce} was
11.2; with 224 g/l it was 2.46. (2) In joint extraction of U(VI) and
Ce(IV), both the partition coefficients are smaller, and $K_{Ce} > K_U$.
Examples: With 19.9 g/l uranyl nitrate + 20.4 g/l cerium(IV) nitrate,

Card 1/2

Joint extraction of uranyl...

S/020/62/146/001/010/016
B101/B144

K_U is 3.98, K_{Ce} is 18.6. If the concentration of the two components is 100 g/l each, K_U is 1.71 and K_{Ce} is 3.34. (3) At concentrations of more than 200 g/l, the difference between K_U and K_{Ce} becomes smaller and approaches zero. Therefore it is not possible to separate U(VI) from Ce(IV) by fractional extraction. The same behavior was observed in extraction by TBP dissolved in CCl_4 . This shows that the TBP solvate of cerium nitrate is only little more stable than the solvate of uranyl nitrate. (4) It follows from data in an earlier paper (DAN, 145, no. 4 (1962)) that the stability of the TBP solvate decreases in the order of the nitrates: Ce(IV) > U(VI) > Th(IV). Conclusion: It is possible to separate uranyl nitrate from thorium nitrate by fractional extraction with 5% TBP solution. There is 1 table. ✓

ASSOCIATION: Institut neorganicheskoy khimii Sibirskogo otdeleniya Akademii nauk SSSR (Institute of Inorganic Chemistry of the Siberian Department of the Academy of Sciences USSR)

SUBMITTED: May 15, 1962
Card 2/2

AFANAS'YEV, Yu.A.; RYABININ, A.I.

Preparation of carrier-free UX, (Th²³⁴) by the extraction
method. Radiokhimiya 5 no.4:520-521 '63. (MIRA 16:10)

(Uranium) (Thorium) (Butyl phosphates)

L 12413-63

EWT(m)/BDS ESD-3 RM

ACCESSION NR: AP3001406

S/0020/63/150/004/0820/0822 55
54AUTHOR: Nikolayev, A. V. (Corresponding Member of the Academy of Sciences SSSR);
Ryabinin, A. I.; Afanas'yev, YV A.TITLE: Mechanism of extraction of cerium nitrate (Roman four) from nitric oxide
solutions with tributylphosphate (TBP)

SOURCE: AN SSSR. Doklady, v. 150, no. 4, 1963, 820-822

TOPIC TAGS: extraction of cerium nitrate, sodium hydroxide

ABSTRACT: The mechanism of extraction of $Ce(NO_3)_4$ with tributylphosphate has been investigated. The existing two points of view stating that cerium is extracted into the TBP in the form of $Ce(NO_3)_4$ and in the form of $H_2[Ce(NO_3)_6]$ have been clarified. The extraction was performed at $25 \pm 0.05^\circ C$. The cerium was determined by means of potentiometric titration with perchloric acid, and the nitric acid was titrated with sodium hydroxide. It was shown that cerium is extracted in the form of $Ce(NO_3)_4$. The analysis shows that in the organic phase there is no relationship between the quantity of $Ce(NO_3)_4$ and HNO_3 , apparently only their common extraction has a meaning and not the extraction of these individual compounds. The distribution coefficient of HNO_3 in most cases does not exceed 0.2. The results obtained point to the

Card 1/2

L 12413-63
ACCESSION NR: AP3001406

possibility of a rapid extraction of cerium (IV) from 1 to 2M solutions of HNO sub
3. Orig. art. has: 1 table and 1 graph.

ASSOCIATION: Institut neorganicheskoy khimii Sibirskogo otdeleniya Akademii nauk
SSSR (Institute of Inorganic Chemistry, Siberian Department, Academy of Sciences
SSSR)

SUBMITTED: 22Feb63

DATE ACQ: 01Jul63

ENCL: 00

SUB CODE: 00

NO REF SOV: 009

OTHER: 002

Card 2/2

NIKOLAYEV, A.V.; AFANAS'YEV, Yu.A.; RYABININ, A.I.

Extraction system $\text{Th}(\text{NO}_3)_4 - \text{HNO}_3 - \text{H}_2\text{O} - (\text{C}_4\text{H}_9\text{O})_3\text{PO}$ at 25°C
studied by means of extraction rays. Dokl. AN SSSR 152 no.5:1115-
1117 O '63. (MIRA 16:12)

1. Institut neorganicheskoy khimii Sibirskogo otdeleniya AN SSSR.
2. Chlen-korrespondent AN SSSR (for Nikolayev).

NIKOLAYEV, A. V.; AFANAS'YEV, Yu. A.

Thermochemical study of the system $UO_2(NO_3)_2 \cdot 2H_2O$ - tri-
butyl phosphate. Dokl. AN SSSR 155 no. 2:374-375 Mr '64.
(MIRA 17:5)

1. Institut neorganicheskoy khimii Sibirskogo otdeleniya AN SSSR. 2. Chlen-korrespondent AN SSSR (for Nikolayev).

AFANAS'YEV, Yu.A.; NIKOLAYEV, A.V.

Thermochemical investigation of the system water - tributyl
phosphate at 25° C. Izv. SO AN SSSR no.11 Ser.khim.nauk no.3:
118-119 '63. (MIRA 17:3)

1. Institut neorganicheskoy khimii Sibirskogo otdeleniya AN SSSR,
Novosibirsk.

L 41571-65 EMT(m)/EPP(n)-2/ENG(m)/EHP(t)/EIP(b) Pu-4 IJP(c) RDH/ES/JD/
ACCESSION NR: AP5009424 S 0259 64 000/003/0060/0062

AUTHOR: Nikolayev, A.V.; Ryabinin, A.I.; Afanas'yev, Yu. A.

TITLE: Mutual influence of uranyl nitrate and thorium nitrate during joint extraction with tributyl phosphate

SOURCE: AN SSSR. Sibirskoye otdeleniye. Izvestiya. Seriya khimicheskikh nauk, no. 3, 1964, 60-62

TOPIC TAGS: tributyl phosphate, uranyl nitrate extraction, thorium nitrate extraction, separation coefficient, distribution coefficient, uranium refining

ABSTRACT: The authors studied the five-component extraction system $UO_2(NO_3)_2 - Th(NO_3)_4 - 1.5 M HNO_3 - H_2O - TBP$ (tributyl phosphate) at 25°C, a diagram of which is given. The distribution coefficients of uranyl and thorium nitrates are approximately constant (0.25 and 0.20, respectively) and the separation coefficient is 1.25. Thus, uranyl nitrate expels thorium nitrate into the aqueous phase. On the other hand, it was found that at low concentrations, uranyl nitrate can be displaced from the organic phase by thorium nitrate. At uranyl nitrate concentrations above 0.5 M, thorium nitrate has practically no effect on its extraction. A comparison of the data

Card 1/2

L 41571-65

ACCESSION NR: AP5009424

obtained with those of previous investigations led the authors to the conclusion that the stability of the solvates formed by tributyl phosphate decreases in the series Ce (IV), U (VI), Th (IV), HNO₃. Orig. art. has: 1 figure and 1 table.

ASSOCIATION: Institut neorganicheskoy khimii Sibirskogo otdeleniya Akademii nauk SSSR, Novosibirsk (Institute of Inorganic Chemistry, Siberian Branch, Academy of Sciences, SSSR)

SUBMITTED: 10Jan64

ENCL: 00

SUB CODE: IC

NO REF SOV: 008

OTHER: 000

ml
Card 2/2

ACCESSION NR: AP4043856

S/0186/64/006/004/0499/0500

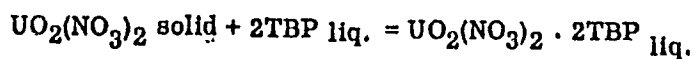
AUTHOR: Afanas'yev, Yu. A.

TITLE: Heat of solution of uranyl nitrate dihydrate in tributylphosphate

SOURCE: Radiokhimiya, v. 6, no. 4, 1964, 499-500

TOPIC TAGS: uranyl nitrate, uranyl nitrate solubility, solution heat, tributylphosphate, uranium purification, solvation

ABSTRACT: Calorimetric studies carried out at 25C using a Beckmann thermometer showed that the heat of solution of $\text{UO}_2(\text{NO}_3)_2 \cdot 2\text{H}_2\text{O}$ in tributylphosphate (TBP) increases irregularly from -9.31 to -10.40 kcal./mol. as the dilution increases from 16.3 to 195. From this value and the standard heats of formation, the author calculated the heat of the reaction



Card 1/2

BR

ACCESSION NR: AP4022719

S/0020/64/155/002/0374/0375

AUTHORS: Nikolayev, A.V. (Corresponding member); Afanas'yey, Yu.A.

TITLE: A thermochemical investigation of the $UO_2(NO_3)_2 \cdot H_2O$ -TBP (tributylphosphate) system

SOURCE: AN SSSR. Doklady*, v. 155, no. 2, 1964, 374-375

TOPIC TAGS: uranyl nitrate, tributylphosphate, thermal reaction effect, calorimetry, solvate, heat release, solvation heat, equilibrium constant

ABSTRACT: It is commonly believed that the extraction of uranyl nitrate by TBP (tributylphosphate) is accompanied by a heat release. But there is little information in the literature about the mentioned thermal effect, and an investigation was made to determine it by the use of a calorimeter. The temperature was measured with a Beckman thermometer, and the heat value of the calorimeter with the solution was determined by heating it with an electric current. It was shown that the dissolution of uranyl nitrate solvate in TBP is accompanied by release of heat which increases with the growing

Card

1/2

AFANAS'YEV, Yu.A.

Thermodynamic calculation of extraction systems. Izv. SO AN SSSR
no.7 Ser. khim. nauk no.2815-20 '61 (MIRA 18:1)

1. Institut neorganicheskoy khimii Sibirskogo otdeleniya AN SSSR,
Novosibirsk.

NIKOLAYEV, A.V.; AFANAS'YEV, Yu.A.; DURASOV, V.B.; RYABININ, A.I.

Determination of the size of solvate molecules formed by tributyl phosphate. Zhur. strukt. khim. 5 no.3:490-492 My-Je '64.

(MIRA 18:7)

1. Institut neorganicheskoy khimii Sibirskogo otdeleniya AN SSSR, Novosibirsk.

AFANAS'YEV, Yu.A.

Heat of solution of uranyl nitrate dihydrate in tributyl phosphate.
Radiokhimiia 6 no.4:499-500 '64. (MIRA 18:4)

NIKOLAYEV, A.V.; AFANAS'YEV, Yu.A.; RYABININ, A.I.; KOROLEVA, T.I.

Thermochemistry of cerium (IV) nitrate extraction with tributyl phosphate. Dokl. AN SSSR 159 no.4:851-852 D '64 (MIRA 18:1)

1. Institut neorganicheskoy khimii Sibirskogo otdeleniya AN SSSR. 2. Chlen-korrespondent AN SSSR (for Nikolayev).

NIKOLAYEV, A.V.; AFANAS'YEV, Yu.A.; KUZNETSOV, P.A.

Calculation of the enthalpy change during extraction according to the standard enthalpies of formation. Izv. SO AN SSSR no.5 Ser. khim. nauk no.1:115-117 '65. (MIRA 18:8)

1. Institut neorganicheskoy khimii Sibirskogo otdeleniya AN SSSR, Novosibirsk.

NIKOLAYEV, A.V.; AFANAS'YEV, Yu.A.; DURASOV, V.B.

Thermochemical study of the extraction of nitric acid with tributyl phosphate. Dokl. AN SSSR 162 no.3:1317-1319 Je '65. (MIRA 18:7)

1. Institut neorganicheskoy khimii Sibirskogo otdeleniya AN SSSR.
2. Chlen-korrespondent AN SSSR (for Nikolayev).

ANNEXURE 1 of the Report of the Commission of Enquiry

into the activities of the Government of India in the State of Kerala
during the period 1968-69 to 1971-72. (Annexure 1B)

1. The Commission has examined the evidence of the witnesses
and has found that the Government of India has not
acted in accordance with the provisions of the
NATP.

L 06534-67 EWT(m)/EWP(j) WW/JW/RM

ACC NR: AP7000491

SOURCE CODE: UR/0020/66/168/002/0351/0353

NIKOLAYEV, A. V., (Corresponding Member of the Academy of Sciences USSR)
AFANAS'YEV, Yu. A., STAROSTIN, A. D., Institute of Inorganic Chemistry, Siberian
Department, Academy of Sciences USSR (Institut neorganicheskoy khimii Sibirskogo
otdeleniya ANSSSR)

62
B

"Thermochemistry of Certain Organophosphorus Compounds"

Moscow, Doklady Akademii Nauk SSSR, Vol 168, No 2, 1966, pp 351-353

Abstract: The heats of combustion and standard heats of formation of tributyl phosphate (TBP), triisobutyl phosphate (iso-TBP), triethyl phosphate (TEP), and triphenyl phosphate (TPP) were determined. The standard heats of combustion and formation of TBP and iso-TBP are very close. The maximum heat of combustion and minimum heat of formation among the substances studied are possessed by TPP. The values for TBP, iso-TBP, and TPP were obtained for the first time; that for TEP is believed by the authors to be more accurate than the earlier literature value. Values obtained were: standard heats of combustion: TBP -1905.7 ± 3.0 kcal/mole; iso-TBP -1906.6 ± 7.9 kcal/mole; TEP -967.3 ± 11.6 kcal/mole; TPP -2227.9 ± 9.5 kcal/mole. Heats of formation: TBP -348.6 ± 3.0 kcal/mole; iso-TBP -347.3 ± 7.9 kcal/mole; TEP -312.4 ± 11.6 kcal/mole; TPP -180.5 ± 2.5 kcal/mole. Orig. art. has: 2-tables. [JPRS: 37,023]

TOPIC TAGS: thermochemistry, organic phosphorus compound, heat of combustion

SUB CODE: 07 / SUBM DATE: 27 Nov 65 / ORIG REF: 006 / OTH REF: 005

Card 1/1 20/11

0423

1207

ACC NR: AP6027528

the carrier of received signal in the tracking filter. It is found that: (1) The overcontrol, $K \gg 1$, as a means for creating an abrupt drop in the equivalent frequency characteristic, in a tracking-filter-type receiver, is practically impossible because of the circuit instability; with $K < 1$, the receiver is always stable; (2) In broadband small-distortion systems, the tracking-filter-type receiver would require a compensation of the control-channel frequency characteristic far beyond its working band; an expedient shape of the frequency-characteristic flank is recommended; (3) The formulas and curves supplied in the article permit calculating the tolerable compression of the tracking-filter band on the basis of specified signal parameters, receiver performance, and control-channel frequency characteristic; (4) So far as the compensation is concerned, the tracking-filter receiver has no advantage over — indeed, it is even inferior to — the frequency-feedback-type receiver. Orig. art. has: 8 figures and 18 formulas.

SUB CODE: 09 / SUBM DATE: 27Feb64 / ORIG REF: 004 / OTH REF: 002

Card 2/2

ACC NR: AP7010720

similar to those studied. A linear dependence of the standard heat of formation in the series tributylphosphine oxide -- tributylphosphate and triethylphosphate -- tributylphosphate upon the empirical parameter $\Sigma\sigma$ and on the molecular weight was established. The standard heats of formation were calculated for trimethylphosphate, triamylphosphate, and the dibutyl ester of butylphosphinic acid. Orig. art. has: 2 figures, 9 formulas and 4 tables. [JPRS: 40,351]

Card 2/2

AFANAS'YEV, Yu. F. (Moskva, A-8, 1 Dmitrovskiy pr., d. 8, kv. 103)

Fate of the "window" in the diaphragm in operations by G. A. Reinberg's method and the mechanism of the action of the operation. Grud. khir. no.2:29-31 '62. (MIRA 15:4)

1. Iz khirurgicheskogo otdeleniya bol'nitsy Ministerstva zdoravookhraneniya RSFSR pri Vystavke dostizheniy narodnogo khozyaystva (glavnyy vrach Ye. A. Kudryavtsev, nauchnyy rukovoditel' raboty - prof. V. I. ~~Stankov~~)

(CORONARY HEART DISEASE) (DIAPHRAGM--SURGERY)

AFANAS'YEV, Yu.G.

Rodents as agricultural pests in the cultivated piedmont zone of
Alma-Ata Province. Trudy Inst.zool.AN Kazakh SSR 10:133-185
'59. (MIRA 12:7)
(Alma-Ata Province--Rodentia) (Agricultural pests)

AFANAS'YEV, Yu. G.

Cand Biol Sci - (diss) "Rodent pests to agriculture of the foothill cultivated zone of the Zailiyskiy Alatau." Alma-Ata, 1961. 16 pp; incl cover; (Kazakhstan State Univ imeni S. M. Kirov, Biology Faculty); 200 copies; price not given; (KL, 5-61 sup, 182)

AFANAS'YEV, Yu.G.; STRAUTMAN, Ye.I.

The squirrel *Sciurus vulgaris exalbidus* in the pine forests of Kustanay Province. Trudy Inst. zool. AN Kazakh SSR 20:140-144 '63.

(MIRA 17:2)

SLUDSKIY, A.A.; STRAUTMAN, Ye.I.; AFANAS'YEV, Yu.G.

Fur resources of Kazakhstan and possibilities for the development of
commercial hunting in the Republic. Trudy Inst. zool. AN Kazakh, SSR
17:5-23 '62. (MIRA 17:2)

AFANAS'YEV, Yu.G.

Sable (*Martes zibellina averini* Bashanov, 1943) in Kazakhstan. Trudy Inst.
zool. AN Kazakh. SSR 17:144-166 '62. (MIRA 17:2)

KYDYRBAYEV, Kh.; AFANAS'YEV, Yu.G.

Some factors limiting the number of the yellow suslik *Citellus fulvus* in the eastern part of its range. Trudy Inst. zool. AN Kazakh. SSR 17: 201-205 '62.

Distribution of the vole *Microtus socialis* Pall. Trudy Inst. zool. AN Kazakh. SSR 17:241-242 '62. (MIRA 17:2)

SLUDSKIY, A.A.; AFANAS'YEV, Yu.G.

Results of and prospects for the acclimatization of game animals
in Kazakhstan. Trudy Inst. zool. AN Kazakh. SSR. 23:5-74 '64.
(MIRA 17:11)

L 04736-67 EWP(k)/EWT(m)/EWP(t)/ETI WW/JD/JG
ACC NR: AP6027005 (N) SOURCE CODE: UR/0148/66/000/005/0073/0077

AUTHOR: Afanas'yev, Yu. I.; Kamenskiy, Yu. M.; Sukhotin, B. N.; Yavoyskiy, V. I. 39

ORG: Moscow Institute of Steel and Alloys (Moskovskiy institut stali i splavov) B

TITLE: Certain problems of the crystallization of ingots of electroslag-remelted metal. Report 1. 14

SOURCE: IVUZ. Chernaya metallurgiya, no. 5, 1966, 73-77

TOPIC TAGS: metal crystallization, electroslag melting, metal melting, molten metal

ABSTRACT: Oriented crystallization is one of the chief advantages of the electroslag re-melting process, but it requires the observance of specified conditions. Thus, the optimal depth of the molten metal bath must be one-half of the diameter (side) of the crystallizer, for ingots weighing up to 1000 kg. The optimal form of the molten metal bath in the case of a cone-shaped crystallizer is assured by maintaining a constant linear rate of ingot build-up, which can be done by gradually reducing the electrode feed rate, on the basis of the equation: $v_b = v_{r.b.} = v_e \frac{S_e}{S_{cr} - S_e}$ where v_b is the linear ingot build-up rate; $v_{r.b.}$ is the rate of rise in the level of the slag bath (for a constant height of slag bath $v_b = v_{r.b.}$); v_e is the linear

Card 1/3

UDC: 669.087.532.78

L 04736-67

ACC NR: AP6027005

investigation of the pattern of variation in the intensity of heat transfer from the slag bath and ingot to the crystallizer walls, performed with the aid of a technical thermometer, shows that the bath depth may be optimized by assuring the completion of the process of crystallization at a given level prior to any marked recession -- due to horizontal and vertical shrinkage -- of the ingot and the slag crust from the crystallizer walls and thus preserving contact with, and hence also the cooling effect of, the crystallizer walls and preventing distortions of ingot shape. Orig. art. has: 5 figures.

SUB CODE: 13, 11/ SUBM DATE: 19Oct65/ ORIG REF: 003

Card 3/3 *gd*

AFANAS'YEV, YU. I.

Afanas'yev. Yu. I.

1047
"The Effect of Partial Removal and Chronic Stimulation of the Cerebral Cortex on the Reactive Properties of the Spleen." Min Health USSR. First Moscow Order of Lenin Medical Inst. Moscow, 1955. (Dissertation for the Degree of Candidate in Medical Science)

So: Knizhnaya letopis', No. 27, 2 July 1955

AFANAS'YEV, Yu.I. (Moskva, 6, 4-y Samotechnyy per. d.9, kv.8)

Discussion of Prof. V.G.Eliseev's article "Modern considerations
on the cellular theory." Arkh.anat.gist. i embr. 33 no.2:78-83
Ap-Je '56. (MIRA 9:10)

(CYTOLOGY,
Lepeshinskaia's theory (Rus))

AFANAS'YEV, Yu. I.

"Effect of Partial Removal of the Cerebral Cortex on the Course of Aseptic Inflammation of the Spleen," p. 91

"Effect of Chronic Stimulation of the Cerebral Cortex on the Course of Aseptic Inflammation of the Spleen," p. 99

"Toward the Problem of the Osmotic Stability of Erythrocytes on Partial Removal and Chronic Stimulation of the Cerebral Cortex," p. 171

from the book "Effect of Higher Divisions of the Nervous System on Processes on Inflammation and Regeneration," Trudy 1-go Moskovskogo Ordena Lenina Meditsinskogo Institute imeni I. M. Sechenov, 1957, 249 pp.

Afanas'ev, Yu. I.
USSR/General Problems of Pathology - Inflammation.

T-1

Abs Jour : Ref Zhur - Biol., No 4, 1958, 17149

Author : Afanasyev, Yu.I.

Inst : -

Title : The Influence of Partial Removal of the Cerebral Cortex
Upon the Course of Aseptic Inflammation of the Spleen.

Orig Pub : Tr. 1-go Mosk. me. in-ta, 1957, 2, 91-98.

Abstract : Aseptic inflammation of the spleen was precipitated in 100 rats by the instillation of 2-3 celloidin sterile tubes (1 x 4 cm.). Animals were sacrificed after 4-12 hours and 1-25 days. In control animals the connective tissue capsule was formed only in the red pulp and the leukocyte wall appeared after 12 hours. In partially decorticated rats, formation of the connective tissue capsule around a foreign body was depressed, after 12 hours the leukocyte wall exceeded that found in control experiments by 2-5 times,

Card 1/2

Afanasyev, Yu. I.
USSR/General Problems of Pathology - Inflammation.

T-1

Abs Jour : Ref Zhur - Biol., No 4, 1958, 17150

Author : Afanasyev, Yu. I.

Inst :

Title : The Effect of Chronic Irritation of the Cortex upon the Course of Aseptic Inflammation of the Spleen.

Orig Pub : Tr. 1-go Mosk. med. in-ta, 1957, 2, 99-104

Abstract : A chronic irritation of the cerebral hemispheres was caused by the application of sterile gauze to their surfaces. The formation of the leucocyte wall was less intense, the transformation of agranulocytes into macrophages had already occurred after 12 hours and phagocytic activity was high. The connective tissue capsule around the foreign body in the red and white pulp appeared earlier than did fibroblastic activity in the control.

Card 1/1

AFANAS'YEV, Yu.I.

Osmotic resistance of erythrocytes following partial removal and
long term stimulation of the cerebral cortex. Trudy 1-go MMI
2:171-179 '57. (MIRA 12:10)
(CEREBRAL CORTEX) (ERYTHROCYTES)

YELISEYEV, Vladimir Grigor'yevich, prof.; AFANAS'YEV, Yuliy Ivanovich,
kand. med.nauk; KOTOVSKIY, Yevgeniy Fedorovich, kand. med. nauk;
ROGOV, A.A., red.; SENCHILO, K.K., tekhn. red.

[Atlas of the microscopic structure of tissues and organs; for
practical lessons of students of histology] Atlas mikroskopiche-
skogo stroeniia tkanei i organov; k prakticheskim zaniatiyam stu-
dentov po gistologii. Moskva, Medgiz, 1961. 199 p. (MIRA 14:12)
(HISTOLOGY)

OSIPOVSKIY, A.I.; AFANAS'YEV, Yu.I.; PAUPER, A.I.; SUKHANOV, Yu.S.

Developmental anomalies and malformations of the central nervous system in the offspring of gamma-irradiated animals.
Radiobiologiya 3 no.188-92 '63. (MIRA 16:2)

1. 1-y Moskovskiy ordena Lenina meditsinskiy institut.
(GAMMA RAYS--PHYSIOLOGICAL EFFECT) (BRAIN)

ACCESSION NR: AT4042648

S/0000/63/000/000/0040/0044

AUTHOR: Afanas'yev, Yu. I.

TITLE: Reaction of the spleen of dogs to transverse accelerations

SOURCE: Konferentsiya po aviatsionnoy i kosmicheskoy meditsine, 1963.
Aviatsionnaya i kosmicheskaya meditsina (Aviation and space medicine); materialy konferentsii. Moscow, 1963, 40-44

TOPIC TAGS: acceleration effect, transverse acceleration, spleen tissue, spleen injury, dog

ABSTRACT: Many experiments conducted on animals exposed to centrifugation, vibration, and space flight have shown that the blood system quickly reacts to acceleration forces. To test this reaction, 28 mongrel dogs were exposed to chest-back accelerations in two tests. In the first test, 14 animals were subjected to an 8-g acceleration for three minutes. In the second test the same number of animals was subjected to a 12-g acceleration for one minute. All animals were immunized against disease two weeks prior to the experiment. Following exposure to acceleration, the animals were anesthetized with ether and dissected after one

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ACCESSION NR: AT4042648

hour, one day, 3, 7, 15, 30, and 60 days. Sections from the dorsal and ventral surfaces of the spleen were removed, fixed, and stained for microscopic examination. It was found that transverse forces (8 g for three minutes and 12 g for one minute) had a dystrophic effect on the vascular endothelium, and on the smooth muscle cells of the trabecula and glandilemma. Thrombogenesis and vascular ruptures were apparent. Lymphoid follicles showed damage one day after acceleration and the proliferative processes of lymphoblasts were decreased. Restoration of mitotic activity in lymphoid tissue progressed slowly.

ASSOCIATION: none

SUBMITTED: 27Sep63

ENCL: 00

SUB CODE: LS

NO REF SOV: 000

OTHER: 000

Card 2/2

OGANDZHANYAN, E. Ia., starshiy nauchnyy sotrudnik; AFANAS'YEV, Yu. I., dotsent

Some morphological and histochemical changes in the spleen of
irradiated animals. Vop. radiobiol. [An Arm. SSR] 3/4:187-195
'63. (MIRA 17:6)

OSIPOVSKIY, A.I., doktor biol.nauk; AFANAS'YEV, Yu.I.; PAUPER, A.I.;
SUKHANOV, Yu.S.

Genetic aspects of the development of the central nervous
system in gamma irradiated animals. Trudy I-go MMI 41:111-
117 '65. (MIRA 18:12)

AFANAS'YEV, Yu.Kh.

Clinical aspects of cysticercosis of the lateral ventricle of the
brain. Vrach. delo no.12:128-129 D '60. (MIRA 14:1)

1. Kafedra nervykh bolezney (zav. - prof. G.G. Sokolyanskiy) Odesskogo
meditsinskogo instituta.
(CYSTICERCOSIS, CEREBROSPINAL)

AFANAS'YEV, Yu.Kh.

~~Hormetonic~~ syndrome in cysticercosis of the brain. Zhur.nevr.i
psikh. 60 no.9:1123-1125 '60. (MIRA 14:1)

1. Kafedra nervnykh bolezney (zav. - prof. G.G. Sokolyanskiy)
Odesskogo meditsinskogo instituta imeni N.I.Pirogova.
(CYSTICERCOSIS, CEREBROSPINAL)

AFANAS'YEV, Yu.Kh.

Change in some vegetative functions in thyrotoxicosis during
treatment with radioactive iodine. Vrach.delo no.8:101-105 Ag
'62. (MIRA 15:11)

1. Kafedra nervnykh bolezney (zav. - prof. G.G.Sokolyanskiy) i
kafedra rentgenologii i radiologii (zav. - prof. Ye.D.Dubovyy)
Odesskogo meditsinskogo instituta.
(HYPERTHYROIDISM) (IODINE--THERAPEUTIC USE)

L 13597-63

EWP(q)/EWT(m)/BDS AFFTC/ASD JD

ACCESSION NR: AP3002387

8/0279/63/000/003/0076/0082 56

AUTHOR: Afanas'yev, Yu. M. (Moscow); Linchevskiy, B. V. (Moscow); Polyakov, A. Yu. (Moscow); Samarin, A. M. (Moscow)

TITLE: Use of slag for steel desulfurization in vacuum induction furnaces ^A

SOURCE: AN SSSR. Izv. Otd. tekhnicheskikh nauk. Metallurgiya i gornoye delo, no. 3, 1963, 76-82

TOPIC TAGS: induction melting, vacuum, nitrogen atmosphere, high-carbon steel, medium-carbon steel, low-carbon steel, desulfurization, synthetic slag, ferrous oxide content, optimum holding time

ABSTRACT: In order to determine the feasibility of deep desulfurization of steel in a vacuum induction furnace with highly desulfurizing synthetic slag, several steels containing 0.035, 0.41, and 1.19% C and from 0.09 to 0.120% S were treated with two synthetic slags. One slag contained 53.8% CaO, 6.6% SiO₂, 40.7% Al₂O₃, and 0.32% FeO; the other slag, 60.4% CaO, 28.8% SiO₂, 10.9% Al₂O₃, and 0.05% FeO. Three variants of treatment were tested: without synthetic slag, vacuum with synthetic slag, and nitrogen atmosphere at 1.1 atm with synthetic

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ACCESSION NR: AP3002387

slag. The slag (6-10 wt% of the metal charge) was put on the crucible bottom under the metal charge; the molten metal was held under liquid slag for 30-50 min at 1600-1700C in a vacuum of 0.05-1.0 mm Hg. Test results showed that regardless of the carbon content, the desulfurizing effect of vacuum alone is very low. Treatment with synthetic slag in combination with nitrogen atmosphere or vacuum reduced the sulfur content in the high-carbon (1.19% C) steel from about 0.2 to 0.02% within the first 15-20 min of the holding time, with practically no change after longer holding. In medium-carbon (0.41% C) or low-carbon (0.035% C) steel, a sharp drop in the sulfur content from 0.12 to 0.01% or even less occurred in the first 10 min, followed by a slight reverse influx of sulfur into the metal during prolonged holding. The different effect of the furnace pressure on desulfurization of low-, medium-, and high-carbon steels is associated with the effects of the FeO content in the slag. The lower the FeO content, the lower the sulfur content in the metal bath. However, in melting steels with a carbon content over 1% the FeO content of the slag does not depend much on the furnace pressure; while in melting low-carbon steels deeper vacuum results in a lower FeO content. The desulfurizing effect of other slag components is much weaker than that of FeO. The highest desulfurization (77% for low-carbon and

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ACCESSION NR: AP3002387

95% for high-carbon steel) was achieved by vacuum melting under a synthetic slag. Melting under a synthetic slag in nitrogen resulted in a desulfurization of 13% for low-carbon and 84% for high-carbon steel, while vacuum melting without a slag reduced the sulfur content by 11 and 23% for the low- and high-carbon steels, respectively. The optimum holding time should not exceed 15-25 min. Orig. art. has: 6 figures, 4 formulas, and 1 table.

ASSOCIATION: none

SUBMITTED: 13Sep62

DATE ACQ: 12Jul63

ENCL: 00

SUB CODE: ML

NO REF SOV: 000

OTHER: 000

Card 3/3

AFANAS'YEV, Yu, Kh. [Afanas'iev, IU. Kh.]; SHTARK, M. B.; KOLIK, A. M. [Kolik, L. M.]

Electrophysiological and "behavioral" characteristics of narcoleptic paroxysm. Fiziol. zhur. [Ukr.] 10 no. 2: 206-214 Mr-Apr '64.
(MIRA 18:7)

1. Laboratoriya klinicheskoy i eksperimental'noy elektrofiziologii i otdel klinicheskoy neyrovegetologii Odesskogo psikhonevrologicheskogo instituta.

AFANAS'YEV, Yu.N.; SPIRIDONOV, V.M.

Provide industrial construction with high quality polymer materials.
Prom. stroi. 43 no.9:2-3 '65. (MIRA 18:9)

AFANAS'YEV, Yu. N.

Afanas'yev, Yu. N. - "The determination of the actual height of a radio signal in rebound from the ionosphere," Trudy Studench. nauch.-tekhn. o-va (Mosk. energet. in-t im. Molotova), Issue 2, 1948, p. 31-38

SO: U-4355, 14 August 53, (Letopis 'Zhurnal 'nykh Statey, No. 15, 1949)

POGOZOV, A.G., inzhener; NEYEVIN, Ye.A., inzhener; AFANAS'YEV, Yu.N., inzhener.

Arched warehouse made of prestressed reinforced elements. Stroi.prom.
34 no.6:41-44 Je '56. (MIRA 9:9)
(Czechoslovakia--Precast concrete construction)

AFANAS'YEV, Yu.N.

Possibilities for the efficient solution of problems concerning the shortening of the planning time and the lowering of the cost of construction. Trudy MIEI no.15:149-151 '61.
(MIRA 14:12)

1. Glavnyy inzh. upravleniya proyektnykh rabot Ministerstva stroitel'stva RSFSR.
(Concrete products)

AFANAS'YEV, Yu.N., inzh.; BOTVINIK, S.V., inzh.

Precast reinforced concrete elements for industrial construction
manufactured on multiple-hollow units. Prom.stroi. 40 no.11:14-
19 '62. (MIRA 15:12)

(Precast concrete)

BOGDANOV, Georgiy Brunovich, kand. tekhn. nauk; BOKRINSKAYA,
Aleksandra Akimovna, kand. tekhn. nauk; AFANAS'YEV,
Yu.N., kand. tekhn. nauk, retsenzent

[Ferrite thermistors] Ferritovye termistory. Kiev, Gos-
tekhizdat USSR, 1964. 190 p. (MIRA 17:6)

AFANAS'YEV, Yu.T.; BASHARIN, A.K.; BASHARINA, N.P.; VOTAKH, O.A.; SOLOV'YEV,
V.A.; KRASIL'NIKOV, B.N., otv. red.; PARFENOV, L.M., otv. red.

[Materials on tectonic terminology. Part 3. Tectonics and its division.
Terms on structural geology.] Materialy po tektonicheskoi terminologii.
Novosibirsk. Pt. 3. Tektonika i ee razdely. Terminy strukturnoi geolo-
gii. 1964. 255 p. (Its Trudy, no.34) (MIRA 18:4)

ACC NR: AP7001995

SOURCE CODE: UR/0040/66/030/006/1022/1028

AUTHOR: Afanas'yev, Yu. V. (Moscow); Krol', V. M. (Moscow); Krokhin, O. N. (Moscow); Nemchinov, I. V. (Moscow)

ORG: Institute of Physics of the Earth, AN SSSR (Institut fiziki Zemli AN SSSR); Physics Institute, AN SSSR (Fizicheskiy institut AN SSSR)

TITLE: Gas dynamic processes during the heating of matter by means of a laser beam

SOURCE: Prikladnaya matematika i mekhanika, v. 30, no. 6, 1966, 1022-1028

TOPIC TAGS: laser radiation, radiative heating, thermodynamic process

ABSTRACT:

An investigation was made of the heating process and the gas dynamic motion of matter subjected to the effects of a powerful laser beam. An examination was made of the case when a bounded transparent mass of gas was heated. The problem of the heating of an initially cold and motionless gas, filling a space bounded by a vacuum, was also solved. The gas dynamic approach for solving these problems was selected because at sufficiently powerful fluxes of laser radiation the rise in temperature is accompanied by the formation of gas dynamic motion of matter (evaporation), which itself exerts a substantial effect on the whole process of heating. One of the features of the process which complicates solution of the prob-

Card 1/2

AFANAS'YEV, Yu.V.; GOL'DREYER, I.G.; KHVOSTOV, O.P.; SHAUB, Yu.B.

Compensated automatic measurements on alternating current.
Geofiz. prib. no.9:37-45 '61. (MIRA 15:11)
(Electric prospecting--Equipment and supplies)

L 34816-65 EWT(1)/EWA(h) Feb
ACCESSION NR: AP5007447

S/0286/65/000/004/0070/0070

AUTHOR: Afanas'yev, Yu. V.

12
B

TITLE: Ferrosonde magnetometer,²⁵ Glass 42, No. 168476

SOURCE: Byulleten' izobreteniy i tovarnykh znakov, no. 4, 1965, 70

TOPIC TAGS: magnetometer

ABSTRACT: This Author Certificate presents a ferrosonde magnetometer containing a ferrosonde excited by alternating current from a generator, an amplifying converter circuit, and a measuring device. To suppress time fluctuations defining the lower threshold of magnetometer sensitivity, a piezoelectric crystal is rigidly bound to the ferrosonde cores and additional generator. This generator excites the crystal with an alternating voltage with a frequency which is not a multiple of the magnetic excitation frequency of the ferrosonde cores (See Fig. 1 in the Enclosure). Orig. art. has: 1 diagram.

ASSOCIATION: none

SUBMITTED: 30Aug63

ENCL: 01

SUB CODE: ES, EC

NO REF SOV: 000

OTHER: 000

Card 1/2

L 53653-65 SWI(1)/EEO(m)/EEO(k)-2/EAO(v)/SNAIN

ACCESSION NR: AR5003338

2000 03 00 11 0019 0019

SOURCE: Ref. zh. Avtomatika, telemekhanika, 1964, No. 1, p. 111-112, 11A12K

AUTHOR: Afanas'yev, Yu. V. 55

TITLE: Synchronous detectors used in ferro-probe magnetometers 55 95

CITED SOURCE: Sb. Geofiz. priborostr. Vyp. 16, L., Nedra, 1964, 39-51

TOPIC TAGS: synchronous detector, magnetometer, ferro-probe magnetometer

TRANSLATION: Synchronous detectors of the type used in ferro-probe magnetometers are described. Several circuits are presented, and the characteristics of the detectors are given. The use of a symmetrical-rectifier circuit is also described. A circuit diagram of a transistorized SD is presented which a symmetrical-rectifier SD circuit; the latter would have a high zero-point stability. The circuit is designed to reduce the SD turn-on internal resistance and its noise level. The circuit is designed for

Card 1, 2

L 63653-65

ACCESSION NR: AR5003338

switching circuits are reduced to a minimum. The above SD was used in a high-sensitivity ferro-probe magnetometer which demonstrated its precision characteristics. Four illustrations. Bibliography. 1 page.

SUB CODE: EC, RF

Card 2 2