Spin-lattice interaction in...   S/181/62/004/011/032/049
                                                   B108/B102

sound., α and β, respectively, are the coupling constants for particles within one cell and for particles of two adjacent cells. The corrections to the relaxation times of single and two-phonon processes are then $\tau^{(1)} = \tau^{(1)}_{Debye} K^{-2}$ and $\tau^{(2)} = \tau^{(2)}_{Debye} K^{-4}$. If the temperatures are not too high (and the optical vibrations still low) these approximations agree well with experimental results.

ASSOCIATION: Kazanskiy. gosudarstvennyy universitet im. V. I. Ul'yanova-
                Lenina (Kazan' State University imeni V. I. Ul'yanov-Lenin)

SUBMITTED: June 29, 1962

Card 2/2

Theory of spin-lattice ...

$w_{kn} = \frac{2}{\hbar} < |H_{k\Delta,n}|^2 \varrho_\Delta >$, for the two-phonon $n \to k$ transition the contribution from the perturbation Hamiltonian H (linear with respect to lattice vibrations) is given by

$$U_{m\lambda,n} = H_{m\lambda,n} + \sum_\sigma H_{m\lambda,k\lambda\sigma}U_{k\lambda\sigma,n}\zeta(E - E_{k\lambda\sigma}),$$ (6a)

$$U_{m\sigma,n} = H_{m\sigma,n} + \sum_\lambda H_{m\sigma,k\lambda\sigma}U_{k\lambda\sigma,n}\zeta(E - E_{k\lambda\sigma}),$$ (6б)

$$U_{k\lambda\sigma,n} = H_{k\lambda\sigma,m\lambda}U_{m\lambda,n}\zeta(E - E_{m\lambda}) + H_{k\lambda\sigma,m\sigma}U_{m\sigma,n}\zeta(E - E_{m\sigma}).$$ (6в)

and from H' (quadratic with respect to lattice vibrations) by

$$w_{kn}^{(3)} = \frac{2\pi}{\hbar}\sum\left\langle\int |H_{k\lambda\sigma,n}|^2 p_\lambda f_\sigma d\lambda\right\rangle,$$ (5), λ and σ enumerate the phonons. After summing over all λ and σ, the approximate relation

$$w_{kn}^{(2)} = \frac{2\pi}{\hbar}\frac{T}{T}\langle|H_{m\lambda,n}|^2 p_\lambda\rangle,$$ (11) is obtained which holds for $\Lambda < k\Theta_D$. For $\Lambda > k\Theta_D$ the usual expression for the probability of a transition through an intermediate stage (Θ_D- Debye temperature) will be valid. $\varkappa'/\varkappa'$ is the ratio of $\sqrt{}$ Card 2/3

24.2200

37?6G
S/056/62/042/005/025/050
B102/B104

AUTHORS: Aminov, L. K., Kochelayev, B. I.

TITLE: Additional spin-spin interaction due to phonon field effect
             in paramagnetic crystals

PERIODICAL: Zhurnal eksperimental'noy i teoreticheskoy fiziki, v. 42,
             no. 5, 1962, 1303-1306

TEXT: The spin-spin interaction in paramagnetics is normally regarded as
an effect of exchange and magnetic dipole-dipole interaction. The former
is a contact interaction and the latter occurs by way of a photon field,
since, however, the spins are also related to the phonon field, an
interaction through that field must exist. This is investigated here by
using the quantum field theory. The energy of spin-spin interaction is
stated for the case in which retardation can be neglected. The matrix for
interaction of paired spins is obtained through the application in second
approximation of the bonds of the scattering matrix in which averages of
the phonon state were used. It is connected with the perturbation energy
by the relationship

Card (1/3)

Additional spin-spin interaction ...

$S_{ij}^{(2)} = -2\pi i U_{ij} \delta (\hbar\omega_{mn} + \hbar\omega_{m'n'})$, where ω represents the phonon frequencies. The energy operator of direct spin-spin interaction by the phonon field is given via

$$U_{ij}^{\phi} = A r_{ij}^{-3} \sum_{\alpha, \beta=1}^{6} s_{\alpha\beta} \varepsilon_{\alpha} \varepsilon_{\beta} F^{\alpha}(S_j) F^{\beta}(S_i), \quad A = R^2 (2\pi\rho v^2)^{-1}; \qquad (5);$$

here $F(\vec{S})$ are spin functions, ε_{α} characterizes the spin-phonon interaction, r_{ij} is the distance between i-th and the j-th lattice point R is the dimension of the complex examined ($R \ll \lambda$, the phonon wavelength), ρ is the crystal density, v is the velocity of sound and s = $f(\vec{r}/r)$, being of the order of unity. The effect of the interaction under consideration is estimated and its effect on the shape of the paramagnetic resonance lines determined. It is shown that the part played by this interaction is an important one, $(\Delta \nu)^2$ being from 1 to 2 orders of magnitude lower than for a resonance line caused solely by magnetic dipol-dipol interaction. This applies to most ions of the elements in the iron group. To sum up, an additional bonding energy between the crystal ions exists and can be brought into play by the interaction of orbital spin of bound electrons via a phonon field. If the separation of energy levels is less than the

Card 2/3

Additional spin-spin interaction ...   S/C56/62/042/005/025/050
                                         B102/B104

Debyo temperaturo, tho bonding onorgy is considerable. S. A. Al'tohulor
is thanked for discussions.

ASSOCIATION: Kazanskiy universitet (Kazan' University)

SUBMITTED: December 10, 1961

Card 3/3

L 33180-66

ACC NR: AR6016161   SOURCE CODE: UR/0058/65/000/011/B007/B007

AUTHOR: Aminov, L. K.

TITLE: Use of diagrams in calculating nonlinear effects $2Z$

                                                                            B

SOURCE: Ref. zh. Fizika, Abs. 11B60

REF SOURCE: Sb. Itog. nauchn. konferentsiya Kazansk. un-ta za 1963 g. Sekts.:
paramagnitn. rezonansa, spektroskopii i fiz. polimerov, radiofiz., astron., bion.
Kazan', 1964, 3-5

TOPIC TAGS: graphic technique, nonlinear effect, amplitude effect

ABSTRACT: The diagram techniques of Konstantinov and Perel' (Ref. zh. Fiz., 1961,
6A444) are applied to the study of response of a system to external action of
finite amplitude. Nonlinear effects with respect to external action have been
taken into account. [Translation of abstract.]
                                                                            [KP]

SUB CODE: 12/ SUBM DATE: none

Card 1/1 mc

L 49015-65   EWT(1)

ACCESSION NR: AR5012280

UR/IK58/65/000/003/D059/D060

SOURCE: Ref. zh. Fizika, Abs. 3D473

AUTHOR: Aminov, L. K.

TITLE: The temperature dependence of spin-lattice relaxation times

CITED SOURCE: Sb. Paramagnitn. rezonans. Kazansk. un-t, 1964, 98-114

TOPIC TAGS: spin lattice relaxation, spin time, spin system

TRANSLATION: Probabilities of relaxation transitions between the levels of a spin system caused by spin-lattice reaction are calculated. An investigation is made for a simple harmonic approximation, in which the spectrum of a spin system is calculated on the assumption that atoms of a lattice are fixed in a position of equilibrium, and lattice motion is a combination of normal oscillations: spin-spin interaction is assumed to be negligible; only the probabilities of single phonon (W_1) and double phonon (W_2) processes are taken into account. A general outline of the temperature dependence of W_1 and W_2 is investigated separately for each case, particularly when spin system levels are sublevels of one Kramers doublet. Various possible relations between system parameters (and also temperature) are investigat-

Card 1/2

L 49015-65

ACCESSION NR: AR5012280

ed. These possibilities cover most of the cases met in practice. Results are given in a table. The results are discussed and compared with experimental data. Basic principles of the obtained results are supported. V. Demin

SUB CODE: NP, SS   ENCL: 00

Card 2/2

L 61061-65   EPF(c)/EWT(1)   IJP(c)   GS/WW

ACCESSION NR: AP5013899   UR/0056/65/048/005/1398/1406

AUTHOR: Aminov, L. K.

TITLE: Contribution to the theory of the shape of paramagnetic resonance lines

SOURCE: Zhurnal eksperimental'noy i teoreticheskoy fiziki, v. 48, no. 5, 1965, 1398-1406

TOPIC TAGS: paramagnetic resonance, line shape, spin lattice relaxation, relaxation time, diagram technique

ABSTRACT: The dependence of the spin-lattice relaxation time on the frequency of an alternating external field was investigated in paramagnetic crystals, using a diagram technique based on the one proposed by O. V. Konstantinov and V. I. Perel' (ZhETF v, 39, 197, 1960), but for an arbitrary order in the external perturbation (instead of being limited to the linear approximation). An advantage of this procedure over the usual Green's function method is that it easily accounts for relaxation processes of arbitrary order. The method is described in detail and is then employed to calculate the susceptibility of the paramagnetic crystal in the presence of the spin-lattice interaction. The shape of the absorption line of the paramagnetic substance is determined in this calculation. The frequency dependence of the spin-lattice relaxation time leads to a high-frequency cut-off of the absorp-

Card 1/2

L 61061-65

ACCESSION NR: AP5013899   3

tion link. The line shape near the resonant frequency is affected only if the main
contribution to their relaxation is due to single-phonon processes, as is the case
at sufficiently low temperatures. Some effects not accounted for by the linear
theory are also considered. "The author thanks S. A. Al'tshuler and A. I. Bur-
shteyn for a valuable discussion." Orig. art. has: 4 figures and 12 formulas.

ASSOCIATION: Kazanskiy gosudarstvennyy universitet (Kazan' State University)

SUBMITTED: 26Nov54   ENCL: 00   SUB CODE: SS, NP

NR REF SOV: 003   OTHER: 004

Card 2/2

AMINOV, M.S.

Sterilizing effect of the heat treatment of canned food in a hot air
flow. Izv. vys. ucheb. zav.; pishch. tekh. no.5:63-65 '61.
(MIRA 15:1)

1. Odesskiy tekhnologicheskiy institut pishchevoy i kholodil'noy
promyshlennosti. Kafedra tekhnologicheskogo oborudovaniya pish-
chevykh proizvodstv.
                    (Food, Canned--Sterilization)

AMINOV, M.S.

Calculation of heating time in sterilizing canned food in a hot
air stream. Izv. vys. ucheb. zav.; pishch. tekh. no.4:120-123 '61.
(MIRA 14:8)

1. Odesskiy tekhnologicheskiy institut pishchevoy i kholodil'noy
promyshlennosti, kafedra tekhnologicheskogo oborudovaniya pishchevykh
proizvodstv.

(Food, Canned--Sterilization)

DIKIS, M.Ya.; MOROZOV, N.V.; AMINOV, M.S.

Air as heat carrier for the sterilization of canned food in
glass containers. Izv.vys.ucheb.zav.; pishch.tekh. no.4:
128-132 '62.   (MIRA 15:11)

1. Odesskiy tekhnologicheskiy institut pishchevoy i kholodil'noy
promyshlennosti, kafedra tekhnologicheskogo oborudovaniya
pishchevykh proizvodstv.
                        (Heat--Transmission)
                    (Food, Canned--Sterilization)

AMINOV, M. S.

Effect of the initial temperature of the product on the sterilization heating time of canned food. Izv. vys. ucheb. zav.; pishch. tekh. no.5:63-64 '62.   (MIRA 15:10)

1. Dagestanskiy gosudarstvennyy universitet imeni V. I. Lenina, kafedra tekhnologii konservirovaniya.

(Canned food—Sterilization)

DIKIS, M.Ya.; AMINOV, M.S.

Vacuum deep-frying of vegetables. Kons.i ov.prom. 17 no.5:12-15
My '62.   (MIRA 15:5)

1. Odesskiy tekhnologicheskiy institut pishchevoy i
kholodil'noy promyshlennosti.
                    (Canning and preserving)

(A) L 1338-66

ACCESSION NR: AP5023719

UR/0337/65/000/008/0058/0061
664.95

AUTHOR: Aminov, M. S.; Skorokhodova, L. I.

TITLE: High-temperature multistage sterilization of canned fish

SOURCE: Rybnoye khozyaystvo, no. 8, 1965, 58-61

TOPIC TAGS: food sanitation, food technology

ABSTRACT: The authors study the effectiveness of a previously proposed method for sterilizing canned fish in a stream of hot water. A small batch of sprat canned in tomato sauce was sterilized under laboratory conditions. A maximum product temperature of about 110°C was reached in the center of a No 8 can after 80 minutes sterilization, with a sterilization regime of $\frac{75-25}{115°}$. The sterilization effect (F) for this regime, determined by B. L. Flaumenbaum's method (*Teoreticheskiye osnovy sterilizatsii konservov*, Kiev, 1960) is 1.23. A regime of $\frac{65-25}{120°}$ gives a maximum temperature in the center of the can after 70 minutes sterilization with a sterilization ef-

Card 1/2

L 1338-66
ACCESSION NR: AP5023719   2

fect of 1.25. Various multistage regimes were tested on different sizes of cans con-
taining various products with hot air as the experimental heat transfer agent. The
results are tabulated. These data show the advantages of high-temperature sterili-
zation conditions: reduced sterilization time and high sterilization effect. Orig.
art. has: 5 figures, 1 table.

ASSOCIATION: Dagestanskiy gosudarstvennyy universitet im. V. I. Lenina (Dagestan
State University)

SUBMITTED: 00   ENCL: 00   SUB CODE: LS

NO REF SOV: 000   OTHER: 000

Card 2/2

ACC NR: AP6014721   (A)   SOURCE CODE: UR/0322/65/000/006/0069/0071

AUTHOR: Aminov, M. S.; Skorokhodova, L. I.

ORG: Department of Canning Technology, Dagestan State University im. V. I. Lenin (Kafedra tekhnologii konservirovaniya, Dagestanskiy gosudarstvennyy universitet)

TITLE: Hot air sterilization food products packed in tin cans

SOURCE: IVUZ. Pishchevaya tekhnologiya, no. 6, 1965, 69-71

TOPIC TAGS: food sterilization, food product machinery

ABSTRACT: Hot air sterilization equipment is simpler in construction and requires less metal than steam or hot water sterilization equipment because pressure of air heated over 100°C does not exceed atmospheric pressure. In the present study the efficiencies of hot air and steam sterilization were compared in experiments on fish and vegetable products packed in tin cans. The temperature curves show that sterilization of food products is equally effective with hot air or steam. Hot air circulating at 6 to 8 m/sec can also be used to cool cans at a temperature of 25 to 30°C. With continuous hot air sterilization, heat expenditure is reduced by half due to air recirculation and water expenditure is reduced by 30%. Annual savings effected with hot air sterilization is 40,000 rubles per 20 million cans. Orig. art. has: 3 figures.

Card 1/2   UDC: 664.8.036.52
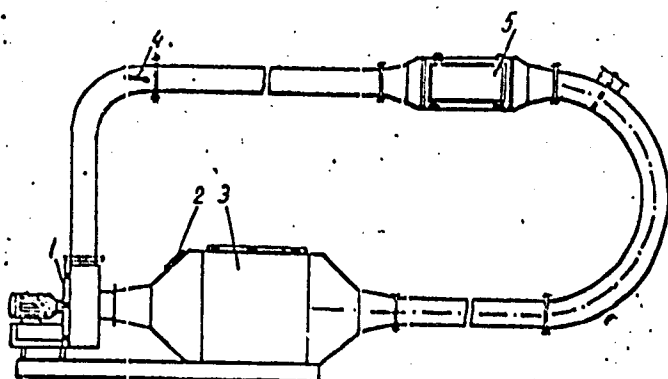
ACC NR: AP6014721

Fig. 1. 1—fan, 2—opening for cold air,
3—electric heating element, 4—air control
valve, 5—sterilization chamber.
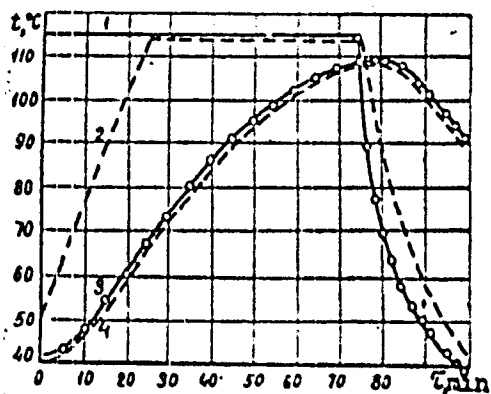
Figure 2. Temperature change
curves. 1—hot air, 2—water in
autoclave, 3,4—temperature of food
products in the center of the can.

SUB CODE: 06/ SUBM DATE: 12Nov64

Card 2/2

Aminov, M. S.

Aminov, M. S. On the equation of disturbed motion of a mechanical system. Appl. Math. Mech. [Akad. Nauk SSSR. Prikl. Mat. Meh.] 11, 377-378 (1947). (Russian; English summary)

The author derives the general equations of the disturbed motion for a conservative holonomic system. He uses the action line-element $ds^2 = 4T dt^2$ of Synge [Philos. Trans. Roy. Soc. London. Ser. A. 226, 31-106 (1926)]. Using a suitable coordinate system and correspondence between the points of the actual orbit and the disturbed motions, the equations attain a particularly convenient form.

J. Lifshitz (México, D. F.).

Source: Mathematical Reviews, 1948, Vol 9, No. 2

Dean - Phys-Math Faculty, Uzbek State U.

AMINOV, M. SH.   PA 17/49T63

USSR/Mathematics - Dynamics   Sep/Oct 48
    Mathematics - Mechanics

"The Stability of Certain Mechanical Systems," M. Sh.
Aminov, Kazan, 4 pp

"Priklad Matemat i Mekh" Vol XII, No 5

Studies mechanical system with n degrees of freedom,
its position defined by generalized coordinates.

17/49T63

ANIKOY M. Sh.

Stability of some mechanical systems.   Trudy KAI 24:3-69 '50.
                                                    (MLRA 10:7)

(Motion)   (Differential equations)

AMINOV, M. SH.

On the Stability of Motion of Various Mechanical Systems

The author examines a mechanical system which contains forces which admit a potential. The article is a continuation of two earlier works by the same author (Prikl. Matem. i Mekhanika, 1947, 11, No. 3; 1948, 12, No. 5). The main part of the work is devoted to a derivation of the equations of perturbed motion of the system and an examination of the stability of the solutions of these equations. (RZhMekh, No. 6, 1955) Tr. Kazansk. Aviats. In-ta, Vol 28, 1953, 61-65

SO: Sum. No. 744, 8 Dec 55 - Supplementary Survey of Soviet Scientific Abstracts (17)

USSR/Mathematics - Stability   FD-2856

Card 1/1   Pub. 85-11/16

Author   : Aminov, M. Sh. (Kazan')

Title   : A method for obtaining sufficient conditions for the stability
                 of nonsteady motion

Periodical   : Prikl. mat. i mekh., 19, Sep-Oct 1955, 621-622

Abstract   : N. G. Chetayev ("Stability of rotation of a solid body with one
                 fixed point in the Lagrange case," ibid., 18, No 1, 1954) ob-
                 tained the conditions for stability of rotation of a solid body
                 around an immobile point in the Lagrange case by employing the
                 Lyapunov method of construction in the form of a collection of
                 integrals. In the present article the author shows how it is
                 possible to use the idea of N. G. Chetayev for obtaining the
                 sufficient conditions for the stability of motion of certain non-
                 steady motions. He considers the differential equation of dis-
                 turbed motion of a certain mechanical system in the form $dx_s/dt =$
                 $\sum p_{si} \cdot x_i + X_s (s=1,\ldots,n)$, where $p_{si}(t)$ are continuous functions
                 of t, $X_s(t, x_1, \ldots, x_n)$ are holomorphic functions whose expansions
                 begin with terms not lower than the second order. Three refer-
                 ences: e.g. N. G. Chetayev, Ustoychivost' dvizheniya [Stability
                 of motion], 1946; A. M. Lyapunov Obshchaya zadacha ob ustoychi-
                 vosti [General problem of stability], GITL, 1950.

Submitted   : May 29, 1955

AMINOV, M.Sh.

Remarks on the paper by M.Sh.Aminov "Method for developing
sufficient condtions of stability in unsteady motion" in Prikl.
mat. i mekh.vol.19, no.5, 1955.Prikl. mat. i mekh. 20 no.5:672
S-O '56.

(Integrals)

(MLRA 10:3)

AUTHOR: Aminov, M.Sh.   SOV/147-5C-1-1/22

TITLE: On the Stability of Rotation of a Solid Body of Variable Mass
           About a Fixed Point (Ob ustoychivosti ' vrashcheniya tverdogo
           tela peremennoy massy vokrug nepodvizhnoy tochki)

PERIODICAL: Izvestiya Vysshikh Uchebnykh Zavedeniy,
              Aviatsionnaya Tekhnika, 1958, Nr 1, pp 3 - 10 (USSR)

ABSTRACT: Meshcherskiy's equations for a system of n particles
      of variable masses subject to smooth holonomic links are
      written down and from these the differential equations for the
      motion of a solid body of variable mass are deduced. The body
      is regarded as having a fixed part of mass M^0 and a variable
      part of mass M^1 . The particles of the variable part of the
      body move along a channel in the fixed part and are ejected at
      a fixed point. The motion of the particles along the channel is
      assumed known. Euler's equations are deduced for the case when
      the principal axes of inertia at the origin are fixed with
      respect to the fixed part of the body. The equations for the
      free motion of a solid body are also derived. The stability
      of rotation of a body of variable mass with one fixed point is
      then discussed. The body is assumed symmetrical, with fixed
      principal axes of inertia at the origin with respect to the
Card1/2 fixed part of the body. The fixed point is on the axis of

SOV./147-58-1-1/22

On the Stability of Rotation of a Solid Body of Variable Mass About
a Fixed Point

 symmetry and the sum of all the moments of all forces, with the
 exception of the force of gravity about the origin is zero.
 Two cases are considered. The first is uniform rotation about
 the vertical axis. In the second, the z-co-ordinate of the
 centre of gravity and the centre of gravity move along the
 x-axis. There are 9 Soviet references.

ASSOCIATION: Kazanskiy aviatsionnyy institut, Kafedra vysshey
    matematiki (Kazan' Aviation Institute, Chair of
    Higher Mathematics)

SUBMITTED: October 12, 1957

Card 2/2 1. Bodies of revolution--Mathematical analysis   2. Differential
    equations--Applications

24.41.00   1327, 1109, 1132, 1502

31573
S/124/61/000/011/004/046
D237/D305

AUTHOR: Aminov, M.Sh.

TITLE: Some problems of motion and stability of a rigid body of variable mass

PERIODICAL: Referativnyy zhurnal, Mekhanika, no. 11, 1961, 12, abstract 11A97 (Tr. Kazansk. aviats. in-ta, 1959, 48, 118 pages)

TEXT: The work consists of three parts. In the first part, the Meshchersky equation of motion of a point of variable mass is integrated for some particular cases, then equations of motions of variable mass point-system are considered, when the motion of each point satisfied the Meshchersky equation and masses are real functions of time. Equations of motion of a rigid body with a variable time-dependent mass are then derived for six independed kinematic characteristics: Three angular velocity components and three components of velocity of any point in the body, projected onto the axes fixed in the body. Also along rigid channels within the body, par-

Card 1/2

Some problems of motion and ...

31573
S/124/61/000/011/004/046
D237/D305

ticles may move, whose respective velocities and accelerations are
real time-variables. Application of the above equation to the case
of particles burning within the channels is not justified. The mo-
tion of a rigid body of constant mass around a stationary axis and
a point is investigated for some particular cases of the process of
separation of mass. In the second part, stability of motion of the
body with diminishing mass is studied for the Lagrange and Kovalev
ska cases with the assumption that the mass tends to a limit as
$t \rightarrow \infty$. The Chetayev method is used and Lyapunov functions are con-
structed as a set of integrals of the system at the limit. In the
third part, the resulting motion of the center of gravity and rota-
tion of principal axes of inertia in the body of variable mass is
determined for the simplest cases of separation of mass. [Abstrac-
ter's note: Complete translation].

Card 2/2

AMINOV, M. Sh.

"Construction of groups of possible displacements."

Report presented at the Conference on Applied Stability-of-Motion Theory and Analytical Mechanics, Kazan Aviation Institute, 6-3 December 1962

L 20124-65 EWT(1) IJP(c)

ACCESSION NR: AR4045227 S/0124/64/000/007/A009/A009

SOURCE: Ref. zh. Mekhanika, Abs. 7A58

AUTHOR: Aminov, M. Sh.

TITLE: Equations in group variables for the motion of particles in a variable mass system

CITED SOURCE: Tr. Kazansk. aviats. in-ta, vy*p. 80, 1963, 5-11

TOPIC TAGS: variable mass system, group variable equation, reaction force calculation, stable mass system, particle motion equation

TRANSLATION: The author considers a holonomic mechanical system with variable masses clearly dependent on time. Reaction forces are determined from I. V. Meshcherskiy's equation and it is assumed that the process of mass change does not vary the kinematic characteristics of the system. A group of reversible, infinitely small transformations, not dependent on time, is introduced and it provides a set of possible permutations in the sense of N. G. Chetavev's definition. The Hamilton Ostrogradskiy principle was used to evolve equations in group variables for the named system. The obtained equations assume the form of Poincare-Chetayev equations for systems with stable masses, but contain in

Card 1/2

L 20124-65
ACCESSION NR: AR4045227

their right-hand terms the corresponding generalized reaction forces dictated by the absolute velocities of particle detachment. An analysis is made of the illustrated equations. V. S. Novoselov.

SUB CODE: ME   ENCL: 00

Card   2/2

AMINOV, M.Sh., red.; BOGOYAVLENSKIY, A.A., red.; KALININ, S.V.,
red.; KUZ'MIN, P A., red.; LUR'YE, A.I., red.;
MATROSOV, V.M., red.; RUMYANTSEV, V.V., red.;
SRETENSKIY, L.N., red.

[Proceedings of the interuniversity conference on the
applied theory of the stability of motion and on analytic
mechanics] Trudy Mezhvuzovskoi konferentsii po prikladnoi
teorii ustoichivosti dvizheniia i analiticheskoi mekhanike.
Kazan', Kazanskii aviatsionnyi in-t, 1964.   144 p.
(MIRA 18:12)

1. Mezhvuzovskaya nauchnaya konferentsiya po analiticheskoy
mekhanike i ustoychivosti dvizheniya, Kazan, 1962.

L 75433-66   EWT(d)/EWT(1)   IJP(c)

ACC NR: AT6007329   SOURCE CODE: UR/2529/63/000/080/0005/0011

AUTHOR: Aminov, M. Sh. (Professor)   3/

ORG: Kazan Aviation Institute (Kazanskiy aviatsionnyy institut)   B+1

TITLE: Equations of motion for a system of material points of variable mass in terms of group variables

SOURCE: Kazan. Aviatsionnyy institut. Trudy, no. 80, 1963. Matematika i mekhanika (Mathematics and mechanics), 5-11

TOPIC TAGS: mathematic physics, matrix function, group theory, dynamic system, differential equation

ABSTRACT: Equations of motion for a system of mass points of variable mass have been derived. The equations (expressed in terms of group variables) are derived from the work of N. G. Chetayev (Ustoychivost' dvizheniya. Raboty po analiticheskoy mekhanike. M., IAN SSSR, 1962). Assuming smooth holonomic constraints and the mass of the points to be a function of the time only, and using the Hamilton-Ostrogradskiy principle

$$\int_{t_0}^{t_1} [\delta T + (\vec{\Phi}^r \delta \vec{r}_s) + (\vec{\Phi}'_s \delta \vec{r}_s)] \, dt = 0$$

$$(s = 1, 2, \ldots, N)$$

the system of differential equations was derived

$$\frac{dx^i}{dt} = \xi^i_l \eta^a,$$

Card 1/3

L-25433-66

ACC NR: AT6007329

$$\frac{d}{dt}\frac{\partial T}{\partial \eta^a} + C^\beta_{a\gamma}\frac{\partial T}{\partial \eta^\beta}\eta^\gamma = X_a(T) + Q_a + Q_{a_a},$$

where x^1 are the coordinates of the system of points, $t_a^l(x^1, x^2, \ldots, x^n)$ are the known functions, ω^α are independent parameters (the so-called parameters of possible displacements), T is the kinetic energy of the system, $\vec{\phi}_s$ is active forces, $\vec{\phi}_{sa}$ is Meshcherskiy reactive forces, X_α is

$$X_a = t_a^l \frac{\partial}{\partial x^l} \quad \left(\begin{array}{c}a = 1,2,\ldots, k \\ l = 1,2,\ldots, n\end{array}\right),$$

$C^\gamma_{a\beta}$ is

Q_α is

and $Q_{a \alpha}$ is

$$(X_a, X_\beta) = C^\gamma_{a\beta} X_\gamma \quad (\alpha, \beta, \gamma = 1, 2, \ldots, k),$$

$$Q_a = \Phi^l_x X_a(x_s) + \Phi^l_y X_a(y_s) + \Phi^l_z X_a(z_s),$$

$$Q_{a_a} = \Phi^l_{a_x} X_a(x_s) + \Phi^l_{a_y} X_a(y_s) + \Phi^l_{a_z} X_a(z_s).$$

If the active forces are derivable from a potential, the equation assumes the form

$$\frac{d}{dt}\frac{\partial L}{\partial \eta^a} + C^\beta_{a\gamma}\frac{\partial L}{\partial \eta^\beta}\eta^\gamma = X_a(L) + Q_{a_a},$$

$$L(x^1, x^2, \ldots, x^n, \eta^1, \eta^2, \ldots, \eta^k, t) = T + U,$$

where L is the Lagrangian. This equation is rewritten for two particular cases, viz.

Card 2/3

L 25433-66

ACC NR: AT6007329

O

a) stationary constraints, and b) for when the system is described in terms of Lagrangian generalized coordinates and velocities. Finally, it is shown that for the case when a potential exists, the equations are reduced to the N. G. Chetayev canonical equation (see reference above). Orig. art. has: 25 equations.

SUB CODE: 20,12/ SUBM DATE: 01Jun63/ ORIG REF: 002/ OTH REF: 002

Card 3/3 $\mathcal{U}\mathcal{C}$

AMINOV, N.R.

Inactivation of phthivazide in pulmonary tuberculosis in
children. Zdrav. Tadzh. 10 no.5:41-43 '63.

(MIRA 17:2)

1. Iz detskogo lechebnogo otdeleniya (zav. - prof. M.P.
Pokhitonova) TSentral'nogo instituta tuberkuleza Ministerstva
zdravookhraneniya SSSR.

ANDRYUSHCHENKO,A.I., doktor tekhn. nauk, prof.; IAPSHOV, V.N., kand.
tekhn. nauk, dotsent; PONYATOV, V.A., inzh.; AMINOV, R.Z.,
inzh.

Thermodynamic calculation technique of the optimum parameters
of the gas section of binary steam and gas systems. Izv. vys.
ucheb. zav.; energ. 7 no.6:54-60 Je '64   (MIRA 17:8)

1. Saratovskiy politekhnicheskiy institut. Predstavlena ka-
fedroy teploenergetiki.

ANDRYUSHCHENKO, A.I., doktor tekhn. nauk, prof.; AMINOV, R.Z., kand.

Choice of initial steam parameters of steam-gas central heating systems. Izv. vys. ucheb. zav.; energ. 9 no.1:37-42 Ja '66.

(MIRA 19:1)

1. Saratovskiy politekhnicheskiy institut. Predstavlena kafedroy teploenergetiki. Submitted March 30, 1965.

L 30251-66

ACC NR: AP6020165   SOURCE CODE: UR/0143/66/000/001/0037/0046

AUTHOR: Andryushchenko, A. I. (Doctor of technical sciences; Professor);
Aminov, R. Z. (Engineer)

ORG: Department of Heat and Power Engineering, Saratov Polytechnic Institute (Kafedra teploenergetiki Saratovskiy politekhnicheskiy institut)

TITLE: Selecting the initial steam parameters for steam-and-gas heating installations

TOPIC TAGS: heating engineering, heat transfer rate, equation of state, thermodynamic efficiency, cost estimate, air conditioning equipment

ABSTRACT: The use of the simplified equation of state suggested by M. P. VUKALOVICH and I. I. NOVIKOV (Uravneniya Sostoyaniya Real'nykh Gazov, GEI, 1948) makes it possible to derive sufficiently simple and accurate working formulas for determining the initial steam pressure p_1^{opt} for steam-and-gas heating installations. This is important from the standpoint of operating these installations at maximum efficiency. The calculations performed show that the optimal initial steam pressure for the elementary case of a back-pressure steam-and-gas heating installation without steam reheat can be determined as a function of the ratio between the flow rates of heat transfer agent in the gas and steam parts of the installation and of the minimum required expenditures. The methods of calculation presented may also be used for more complex heating
UDC: 621.311.26

Card 1/2

L 30251-66
ACC NR: AP6020165

systems. The calculations take into account such factors as the
metal requirement for the economizers and superheater tube banks
and headers and the unit cost of gas turbines, compressors, com-
bustion chambers, heating surfaces, and regenerative preheaters
as a function of initial pressure, proceeding from the assumption
that every 39-bar increase in initial pressure is equivalent to a
7% increase in the cost of the steam turbine and feedwater pump.
Orig. art. has: 6 figures, 26 formulas, and 1 table. [JPRS]

SUB CODE: 13 / SUBM DATE: 30Mar65 / ORIG REF: 009

Card 2/2

L 22469-66

ACC NR: AP6013605   SOURCE CODE: UR/0143/65/000/010/0071/0077

AUTHOR: Aminov, R. Z. (Engineer)   40
                                                                    B

ORG: Saratov Polytechnic Institute (Saratovskiy politekhnicheskiy institut)

TITLE: Determining the most effective heating coefficient for planned steam-gas
heat and electric power stations

SOURCE: Izvestiya vysshikh uchebnykh zavedeniy. Energetika, no. 10, 1965, 71-77

TOPIC TAGS: electric power plant, gas turbine, steam turbine, boiler

ABSTRACT: The most effective coefficient of heating as applicable to steam-
gas turbine installations is determined under the following conditions: the
planned output of heat from the heat and power station is fixed and does not
depend on the heating coefficient; the expenditure of steam in the condenser
of the steam turbine changes from a maximum in Summer to a minimum with the
planned coefficient; the output of power by the steam power unit is supple-
mented by another power source; the constant heat drain (for hot water) is
supplied by intermediate air cooling in the compressors, so that the steam
removed for heat is used only for heating purposes per se; the number of
steam outputs and minimal head temperature in the boilers is selected to be
optimal. The method used allows approximate determination of the optimal
heating coefficient without detailed technico-economic calculations. The
calculations presented show that with otherwise identical conditions, steam-
gas turbines will have a higher optimal heating coefficient than ordinary

Card 1/2   UDC: 621.186.2

L 22469-66

ACC NR: AP6013605

O

steam turbines. The optimal coefficient increases with increasing share of
gas in the steam-gas mix. Orig. art. has: 3 figures and 21 formulas. [JPRS]

SUB CODE: 10 / SUBM DATE: 19Feb65 / ORIG REF: 005

Card 2/2 BK

ANDRYUSHCHENKO, A.I., doktor tekhn. nauk, prof.; AMIKOV, R.Z., inzh.

Determination of optimum parameters of the gas sections of steam
and gas operated heat and electric power plants with intermediate
air cooling by network water. Izv. vys. ucheb. zav.; energ. 7 no.
12:41-48 D '64.   (MIRA 18:2)

1. Saratovskiy politekhnicheskiy institut. Predstavlena kafedroy
teplcenergetiki.

AMINOV., S., kand.ekonomicheskikh nauk

    Let's make a more thorough analysis of marketing expenses. Sov.
torg. 34 no.5:17-19 My '61.   (MIRA 14:5)

   1. Direktor Stalinabadskogo gorposhchetorga.
                   (Marketing—Costs)

AMINOV, Sh.

Prospects for the development and distribution of the industry of
Tajikistan, using the example of the building materials industry.
Uch. zap. Dush. gos. ped. inst. 35. Ser. geog. no.2:219-240 '62.
(MIRA 16:9)

(Tajikistan—Building materials industry)

AMINOV, Saddik Aminovich; MOTORIN, P., red.; KOZLOV, N., tekhn.red.

    [Commerce in Soviet Tajikistan] Torgovlia v sovetskom Tadzhikistane.
    Stalinabad, Tadzhikgosizdat, 1957. 70 p.   (MIRA 11:6)
         (Tajikistan--Commerce)

AMINOV, S.A.

Nature of the 1st phase of the lactation reflex. Fiziol. zhur. 47
no.4:449-453 Ap '61.   (MIRA 14:6)

1. From the Laboratory of Farm Animal Physiology, Pavlov Institute
of Physiology, U.S.S.R. Academy of Sciences, Leningrad.
                        (LACTATION)

AMINOV, S.A.

Technic of catheterization of the nepple in ewes. Fiziol.zhur. 47
no.5:662-664 My '61.   (MIRA 14:5)

1. From the Laboratory of Physiology of Farm Animals, I.P.Pavlov
Institute of Physiology, Leningrad.
        (CATHETERS)   (UDDER)

ANTNOV, S. A.

Dissertation defended at the Institute of Physiology ireni I. P. Pavlov for the academic degree of Candidate of Biological Sciences:

"Characteristics of the Motor Function of the Mammary Gland in Sheep."

Vestnik Akad Nauk, No. 4, 1963, pp. 11^-145

FISHELEVICH, M.; SOKOLOVA, L.M.; TROKHIN, V.K.; IVASHCHENKO, S.A.; VASIL'KOV,
G.V.; BORISOVICH, Yu.F.; OVSYANOV, N.I.; AMINOV, S.A.; SUVOROV, P.S.;
SHUBIN, V.A.; CHIZHOV, A.

Information and brief news. Veterinariia 41 no.3:118-126 Mr '64.
(MIRA 18:1)

FI EYDLINA, R.Kh.; AMINOV, S.N.; TERENT'YEV, A.B.

Rearrangement of radicals in the telemerization of ethylene by
acetic acid. Dokl. AN SSSR 156 no. 5:1133-1136 Je '64.

(MIRA 17:6)

1. Institut elementoorganicheskikh soyedineniy AN SSSR.
2. Chlen-korrespondent AN SSSR (for Freydlina).

AMINOV, S.N.; TERENT'YEV, A.B.; FREYDLINA, R.Kh.

Telomerization of ethylene by aliphatic acids and acetonitrile.
Izv. AN SSSR.Ser.khim. no.10:1855-1860 '65.

1. Institut elementoorganicheskikh soyedineniy AN SSSR.

(MIRA 18:10)

TERENT'YEV, A.P., AMINOV, S.B., FRET'MAN, E.Ph.

    Telomerization of ethylene with selenic ester. Izv. AN SSSR.
    Ser. khim. no.11:2042-2044 '65.   (MIRA 19:1)

    1. Institut elementoorganicheskikh soyedineniy AN SSSR.

AMINOV, S.N.; TERENT'YEV, A.B.; FREYDLINA, R.Kh.

Telomerization of ethylene by fatty acids and their derivatives.
Uzb. khim. zhur. 9 no.5:36-42 '65.   (MIRA 18:12)

1. Institut elementoorganicheskikh soyedineniy AN SSSR.
Submitted April 10, 1965.

USSR/Radio Towers
Radio Teletype

Oct 1947

"Reconstruction of Radio Antenna Installations," T. D. Amknov, Chief Engr, Alma-Ata Radio Communications Administration, 2 pp

"Vestnik Svyazi - Elektrosvyaz'" No 10 (91)

The efficiency of short-wave letter-typing radio communications is very greatly dependent on the proper installation of the radio antennas and their proper use. For this reason, the personnel of radio stations are charged with the duty of proper exploitation of these installations. The author discusses the work done in the technical exploitation of radio antennas

10

USSR/Radio Towers (Contd)   Oct 1947

under the jurisdiction of the Alma-Ata Administration, and the measures which were adopted to increase the life of radio antenna installations.

29T87

AMINOV, T. D.

YEZHOV, A.G.; MARCHENKO, I.M.; UDODOV, M.G.; KONONTSEV, P.I.; AMINOV, T.D.; ROMANOV, B.G.; NAZARETYAN, V.A.; PETROV, V.A.

Introducing abundant radio facilities in villages. Vest. sviazi 14 no.5:18-21 My '54.

(MIRA 7:7)

1. Nachal'nik Sverdlovskoy IRTS (for Yezhov); 2. Nachal'nik Ul'ya-novskoy IRTS (for Marchenko); 3. Nachal'nik Balykleyskoy kontory svyazi (for Udodov); 4. Nachal'nik Rovenskogo oblastnogo upravle-niya svyazi (for Konontsev); 5. Glavnyy inzhener Alma-Atinskoy direktsii radiosvyazi (for Aminov); 6. Nachal'nik Stalingradskoy IRTS (for Romanov); 7. Zamestitel' nachal'nika Talinskoy rayonnoy kontory svyazi Armyanskoy SSR (for Nazaretyan); 8. Nachal'nik Stavropol'skoy krayevoy IRTS (for Petrov).
     (Radio--Receivers and reception) (Radio in agriculture)

AMINOV, T.D.

The radio operators of Alma-Ata are improving broadcasting and
radio communication means. Vest. sviazi 22 no.10:17 O '62.
                                                        (MIRA 15:11)

1. Glavnyy inzh. Alma-Atinskoy direktsii radiosvyazi i
radioveshchaniya.
                    (Alma-Ata—Radio operators)

5(4)

AUTHORS: Aminov, T. G., Zelentsov, V. V., Savich, I. A.

TITLE: Magnetic Susceptibility of Some Oxalate Complexes of Quadri-
                valent Uranium

ABSTRACT: The investigation of the problem mentioned in the title
                facilitates the answer to the question as to the electronic
                configuration of quadrivalent uranium. In its ion, 2 nonpaired
                electrons may occupy the paths 6d or 5f. Then, their ground
                state is determined - according to Hund's rules - by the
                terms $^3F_2$ and $^3H_4$, while their effective magnetic moments
                will amount to 1.63 and 3.58 magnetons of Bohr, respectively,
                if the interaction of Russell-Saunders takes place. As the
                electrons of level 6d are more intensely subjected to the
                influence of electric fields of neighboring atoms, the orbital
                component is almost completely suppressed in most cases, and
                the magnetic moment in this case is only determined by the
                spin, and amounts to $\mu_{eff} = 2.83$ μ_B. The present paper gives
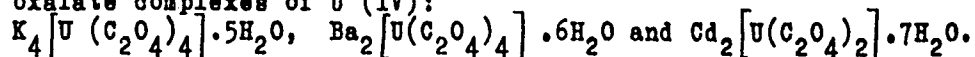
Card 1/3   investigation results of the magnetic susceptibility of 3

Magnetic   Susceptibility of Some Oxalate Complexes of Quadrivalent Uranium

oxalate complexes of U (IV):

$K_4[U(C_2O_4)_4] \cdot 5H_2O$, $Ba_2[U(C_2O_4)_4] \cdot 6H_2O$ and $Cd_2[U(C_2O_4)_2] \cdot 7H_2O$.

The susceptibility of these substances was first investigated
by A. A. Grinberg and T. K. Petrzhak (Ref 1), but only at
room temperature and without correction for the diamagnetism
of the cation and oxalate ion. The authors studied this sus-
ceptibility over a wider temperature range. The knowledge of
the Weiss constant, and the consideration of all diamagnetic
corrections, make possible a more accurate computation of
the effective magnetic moments of U (IV) in the above-mentioned
salts. Table 1 gives their analysis. The magnetic susceptibility
was determined by Guï's method. A special device was used mak-
ing possible the investigation over a temperature range from
room temperature up to the boiling point of liquid nitrogen.
Mohr's salt was used as a standard substance. The measurement
results of the susceptibility of the above complexes are
given in table 2 and figure 1. Figure 1 shows that all com-
pounds investigated follow the law of Curie-Weiss above 195°K.
At lower temperatures, considerable deviations occur which

Card 2/3   are different for the individual compounds (similar to Refs 3,4).

SOV/20-128-3-27/58

Magnetic Susceptibility of Some Oxalate Complexes of Quadrivalent Uranium

They are due to magnetic anomalies at low temperatures. With the falling temperature, the susceptibility starts increasing more slowly than it would have to according to formula $\chi = \frac{C}{T+\Delta}$. Table 2 shows the μ_{eff} and the Weiss constants of the said complexes. V. B. Yevdokimov helped by giving valuable advice. There are 1 figure, 2 tables, and 4 references, 1 of which is Soviet.

ASSOCIATION: Moskovskiy fiziko-tekhnicheskiy institut
(Moscow Physico-technical Institute)

PRESENTED: April 21, 1959, by V. I. Spitsyn, Academician

SUBMITTED: February 24, 1959

Card 3/3

ZELEPTSOV, I.V.; AFANOV, T.G.

Magnetic susceptibility of copper (II) oxalate and succinate.
Dokl. AN SSSR 158 no.6:1393-1395 O '64.   (MIRA 17:12)

1. Moskovskiy fiziko-tekhnicheskiy institut.

ZELENTSOV, V.V.; VOLKOV, M.N.; ALLENOV, V.M.; AMINOV, T.G.

Magnetic susceptibility of copper benzoate. Zhur. neorg. khim.
10 no.2:564-565 F '65.   (MIRA 18:11)

1. Moskovskiy fiziko-tekhnicheskiy institut. Submitted June
30, 1964.

AMINOV, T.G.; ALLENOV, V.M.; ZELENTSOV, V.V.; YEVDOKIMOV, V.B.

Magnetic susceptibility of the oxalates of bivalent chromium, iron, and
copper. Zhur. fiz. khim. 39 no.3:704-709 Mr '65.   (MIRA 18:7)

1. Moskovskiy fiziko-tekhnicheskiy institut i Moskovskiy gosudarstvennyy
universitet imeni Lomonosova.

AMINOV, U.U.

Activities of the pharmaceutic network of the Namangansk Regional
Branch of UzGAPU. Apt.delo 3 no.3:38-39 My-Je '54.   (MLRA 7:6)
        (PHARMACY,
            *in Russia, organiz.)

AMINOV, Ubay U.

Urgent problems and ways for expanding the pharmacy system in the
rural areas. Apt.delo 7 no.4:46-48 Jl-Ag'58   (MIRA 11:8)

1. Iz Andizhanskogo oblastnogo otdeleniya Uzbekskogo glavnogo aptech-
nogo upravleniya.
          (PHARMACY)

AMINOV, U.U.

  First successes. Apt. delo 10 no.5:77-78 S-O '61. (MIRA 14:12)

  1. Andizhanskoye aptechnoye upravleniye.
       (PHARMACY)

ACC NR: AP7001225   SOURCE CODE: UR/0066/66/000/012/0051/0053

AUTHOR: Aminov, V. Kh.

ORG: Plant "Kremnepolimer" (Zavod "Kremnepolimer")

TITLE: Climatic chamber 3001

SOURCE: Kholodil'naya tekhnika, no. 12, 1966, 51-53

TOPIC TAGS: *TEST CHAMBER, MATERIAL FAILURE, MACHINE INDUSTRY,* refrigeration, humidification, climate control, climatic chamber/ 3001 climatic chamber

ABSTRACT: The climatic chamber (thermobar chamber) 3001 (GDR), designed for scientific and industrial stability testing of equipment and materials under conditions of constant or variable climate, is described. The chamber (see Fig. 1) creates, recreates, and controls all kinds of climatic conditions according to international standards. The facilities and the operation of the chamber are described in detail. The temperature-relative humidity combinations obtainable in the chamber are shown in Fig. 2.

Card 1/3   UDC: 621.565.001.5
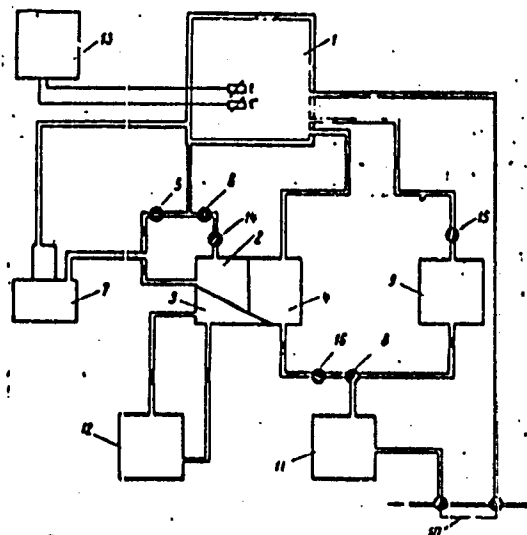
ACC NR: AP7001225

Fig. 1. Operational diagram for the chamber: 1 - testing chamber; 2 - air cooler; 3 - plate evaporator; 4 - drying agent; 5, 6 - heating and cooling valves; 7 - temperature regulator; 8 - humidifying and drying valve; 9 - humidifier; 10 - fresh and circulating air valve; 11 - ventilation; 12 - cooling apparatus; 13 - recorder
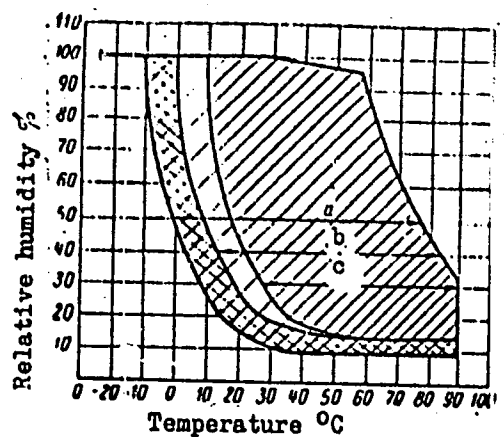
Card 2/3

Fig. 2.   Diagram of air temperature-relative humidity
combination produced in the chamber: a - constant climate,
manual control; b - constant climate, automatic control;
c - variable climate, automatic control

Orig. art. has: 2 tables and 3 figures.

SUB CODE: 13, 14/   SUBM DATE: none

Card   3/3

L 27975-66

ACC NR: AP6017732

SOURCE CODE: UR/0066/65/000/006/0047/0048

AUTHOR: Aminov, V. Kh.

ORG: Zaporozh'ye "Kremnepolimer" Factory (Zaporozhskiy zavod Kremnepolimer)

TITLE: New design for ammonia compressor glands

SOURCE: Kholodil'naya tekhnika, no. 6, 1965, 47-48

TOPIC TAGS: teflon, iron, aluminum, ammonia, gas compressor

ABSTRACT: In the new design gland, designed to provide longer wear and better sealing of ammonia compressor shafts, the 16 iron or aluminum rings used for sealing on the old design gland are replaced by 4 Teflon (polytetrafluorethylene) rings. The new glands, produced by the Zaporozh'ye "Kremnepolimer" plant, have been in use-testing since December 1963, and bid fair to be suitable for continuous usage until 1967 at least. Orig. art. has: 2 figures. [JPRS]

SUB CODE: 11, 13 / SUBM DATE: none

Card 1/1

UDC: 621.57.041:62-223

AMINOV, Ya.

Differential equation of the resilient-pliable oscillations
of a plate subjected to strong flexure. Izv. AN Uz. SSR. Ser.
tekh. nauk 8 no.1:38-49 '64.   (MIRA 17:6)

1. Institut mekhaniki AN Uzbekskoy SSR.

GONCHAROV, S.N. (Cherkassy); AMINOVA, A.L. (Cherkassy)

Experience in the organization of dysentery control.
Vrach. delo no.10:132 O '63.   (MIRA 17:2)

AMINOVA, G., ekonomist

Establishing work norms on state farms. Sov. profsoiuzy 20
no.4:12-15 F '64.   (MIRA 17:3)

AMINOVA, G. G.: Master Biol Sci (diss) -- "Normal morphology and phosphomono-
esterase activity of the sympathetic nodes and small blood vessels of cattle".
Mosc~w, 1958. (Moscow Vet Acad Min Agric USSR), 140 copies (KL, No 1, 1959 117)

AMINOVA, G.G.

Functional aspects of the endothelium and muscles of arteries,
veins and capillaries. Arkh. anat., gist. i embr. 47 no.9:39-
48 S '64.   (MIRA 18:11)

1. Laboratoriya funktsional'noy anatomii (zav. - chlen-korrespon-
dent AMN SSSR prof. D.A.Zhdanov) Instituta morfologii cheloveka
AMN SSSR. Submitted April 24, 1964.

AMINOVA, M.G.; NECHIFORENKO, L.G.; SMIRNOV, L.I.; TRIFONOV, F.I.;
    PERELYGIN, V.M., kand. med. nauk, otv. red.

[Bibliography of the scientific papers of the Insitutute from
1938 to 1961] Bibliografiia nauchnykh rabot instituta za pe-
riod 1938-1961 gg. Frunze, 1961. 77 p.   (MIRA 18:3)

1. Kirgizskiy nauchno-issledovatel'skiy institut epidemio-
logii, mikrobiologii i gigiyeny. 2. Direktor Kirgizskogo
nauchno-issledovatel'skogo instituta epidemiologii, mikro-
biologii i gigiyeny (for Perelygin).

AMINOVA, M. G. TVERITINOVA, A. M.; GEL'BERG, S. I.

"Treatment of Diphtheria Carriers With Soviet Gramicidin," Trudy Instituta Epidemiologii i Mikrobiologii Ministerstva Zdravookhraneniya Kirgizskoy SSR, Frunze, Vol 1, 1951, pp 30-34.

AMINOVA, M. G.; TYERITINOVA, A. M.; GEL'BERG, S. I.

"Treatment of Diphtheria Carriers With Soviet Gramicidin," Sbornik Nauchnykh Trudov Kirgizskogo Gosudarstvennogo Meditsinskogo Instituta, Frunze, Vol 7, 1951, pp 249-258.

AMINOVA, M. G., Cand Med Sci -- (diss) "Study of mycobacteria in experiment." Samarkand, 1957. 11 pp (Samarkand State Med Inst), 200 copies (KL, 2-58, 115)

Country	: USSR
Category	: Microbiology. Microbes Pathogenic For Man and Animals. Mycobacteria.
Abs. Jour	: Ref Zhur-Biol., No 23, 1958, No 103923
Author	: Aminova, M. G.
Institut.	: Kirgiz Scientific Research Institute of Epidemiology*
Title	: Study of OVS Mycobacteria Experimentally. Report 1. Comparative Testing of Vegetation Dynamics of OVS and BCG Mycobacteria in the Bodies of Experimental Animals
Orig Pub.	: Sb. tr. Kirg. n.-i. in-ta epidemiol., mikrobiol. i gigiyeny, 1957, No 3, 132-138
Abstract	: *Microbiology and Hygiene

It has been shown that mycobacteria of the OVS strain, isolated by Wells in 1957 from the bodies of field voles with spontaneous tuberculous infections, have a shorter adaptation period than BCG when administered to white mice, and they can be plated out of the lymph nodes after five days. Whereas cultures from organs of mice vaccinated with the BCG strain show no growth five days after vaccination, cultures from mice vaccinated with OVS strains showed profuse growth until the 21st to 360th day. These data confirm the greater

Card:	ability of the OVS strain to multiply and cr... todies of white mice compared wi. I. M. Model'.
	1/1 F-73

Country : USSR
Category : Microbiology. Microbes Pathogenic For Man and Animals. Mycobacteria.

Abs. Jour : Ref Zhur-Biol., No 23, 1958, No 103925

Author : Aminova M.G.
Institut. : Kirgiz Scientific Research Institute of Epidemiology
Title : Study of OVS Mycobacteria Experimentally. Third Report. Testing of the Immunizing Effect of OVS Mycobacteria on Guinea Pigs.

Orig Pub. : Sb. tr. Kirg. n.-i. in-ta epidemiol., mikrobiol. i gigiyeny, 1957, No 3, 140-142

Abstract : Microbiology and Hygiene

Guinea pigs were vaccinated subcutaneously with 0.01 mg of OVS or BCG mycobacteria; the immunity was tested 2,7 and 8 months after vaccination through infection with 0.00001 and 0.0001 mg of Ravonel' strain mycobacteria. The mean index of intensity of involvement 65 days after OVS vaccination was equal to 1.75; after BCG vaccination, 1.95; after 7-8 months, the index in those vaccinated with OVS was 2.2; with BCG, 4.4-3.6. Eleven months after the OVS vaccination a reduction in the strength of the immunity was found. The mean index of intensity of involvement of guinea pigs

Card : 1/2

F-74

PERELYGIN, V.M.; AMINOVA, M.G.; P'YACHENKO, P.N.

Study of the epidemiological and hygienic problems of Kirghizi-
stan. Sov. zdrav. Kir. no.4/5:19-27 Jl-O'63   (MIRA 17:1)

1. Iz Kirgizskogo instituta epidemiologii, mikrobiologii i gi-
giyeny (dir. - kand. med. nauk V.M.Perelygin).

AMINOVA, M. G.;   REVENOK, N. D.;   SAFAROV, D. I.;   SMORODINTSEV, A. A.;   BOYCHUK, L. M.
SHIKINA, Ye. S.;   NIKITIN, M. I.;   MESHALOVA, V. V.;   TAUDS, L. Y.

"The Safety and Epidemiological Effectiveness of Live Measles Vaccine
Developed in Leningrad."

Report submitted at the International Symposium on Biological
Standardization, Opatija, Yugoslavia, Sept 63.

SMORODINTSEV, A. A.; BOYCHUK, L. M.; SHIKINA, Ye. S.; MESHALOVA, V. N.; TAROS, L. Yu.;
AMINOVA, M. G.; REVENOK, N. D.; SAFAROV, D. I.

"Experience in the USSR in the prevention of measles by use of live vaccine."

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    in the southern republics of the U.S.S.R. Č. hyg. epidem. (Praha)
    8 no.2:229-236 '64.

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    Microbiology and Hygiene, Baku; Institute of Epidemiology and
    Microbiology, Frunze; Institute of Epidemiology and Microbiology,
    Dushambe.

AMINOVA, R. Kh.

AMINOVA, R. Kh., kand. ist. nauk; TETENEVA, L.G., kand. ist. nauk;
ALIMOV, I.A.; DMITRIYEV, G.L.; DZHAMALOV, O.B., doktor
ekon. nauk, redaktor ; DZHURAYEVA, T., kand. ist. nauk,
red.; ATFENYUK, S.Ya., red.; DANILOV, V.P., g.ev. red.;
BELOV, G.A., red.; GRIGOR'YAN, L.L., red.; IBRAGIMOV, Z.I.,
red.; IVNITSKIY, N.A., red.; IL'YASOV, S.I., red.; KARABAYEV,
S.D., red.; KAMENSKAYA, N.V., red.; KRAYEV, M.A., red.;
KULIYEV, O.K., red.; MAKHARADZE, N.B., red.; OBICHKIN, G.D.,
red.; PLESHAKOV, S.T., red.; RADZHABOV, Z.I., red.; SELEZNEV,
M.S., red.; TURSUNBAYEV, A.B., red.; FEDOROV, A.G., red.;
SHEPELEVA, T.V., red.; PATLAKH, B., red.; MASHARIPOVA. D.,
red.; BULATOVA, R., red.; GOR'KOVAYA, Z.F., tekhn. red.;
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[Socialist reorganization of agriculture in Uzbekistan]
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[History of the working class of Uzbekistan] Istoriia
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Nuclear magnetic resonance spectra and the structure of
1,3-dioxanes, 1,3-dioxolanes, and some cyclic esters of
sulfurous and carbonic acids. Part 1:Dioxanes and 1,3-
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(MIRA 17:6)

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156 no. 1:142-144 My '64.   (MIRA 7:5)

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   Lenina. Predstavleno akademikom B. A. Arbuzovym.

SAMITOV, Yu.Yu.; AMINOVA, R.M.

Nuclear magnetic resonance spectra and structure of 1,3-dioxanes,
1,3-dioxolane and some cyclic esters of sulfurous and carbonic
acids. Part 2: Conformation and anisotropy of chemical bonds of
cyclic esters. Zhur. strukt. khim. 5 no.4:538-545 Ag '64.

(MIRA 18:3)

1. Kazanskiy gosudarstvennyy universitet imeni Ul'yanova-Lenina.

I 40728-65   EWT(m)/EPF(c)/EWP(j)   Pc-4/Pr-4   RWH/RM
ACCESSION NR: AP5012396   UR/0020/64/157/006/1420/1423

AUTHOR: Aminova, R. M.; Arbuzov, B. A. (Academician)

TITLE: Molecular-orbital theory of diamagnetism of cyclic molecules. Calculation
of magnetic anisotropy of cyclopropane

SOURCE: AN SSSR. Doklady, v. 157, no. 6, 1964, 1420-1423

TOPIC TAGS: molecule, molecular theory, diamagnetism, magnetic anisotropy,
magnetic field, cyclic group, propane, intramolecular mechanics, physical chemistry

Abstract: In this paper, the molecular-orbital (m. o.) theory of diamagnetism
proposed by Pople for simple noncyclic compounds is developed for cyclic
molecules and, from the formulas derived, calculations are made of the magnetic
anisotropy of cyclopropane. The m. o. method is used in a single-electron
approximation of the linear combination of atomic orbital method with the
magnetic field accounted for. If in the absence of a magnetic field H, the
linear combination of atomic orbitals / l. c. a. o./ theory gives approximate
solutions of ψ, of the Schroedinger wave equation in the form of a linear
combination of atomic orbital, then in the magnetic field atomic orbitals
of the following form must be used.

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ACCESSION NR: AP5012396

$$\chi_\mu = \phi_\mu \exp \left[- (ie/\hbar c) A_\mu \cdot r \right],$$

where ϕ_μ = atomic orbital belonging to the atom μ with a vector-radius r_μ and A_μ = the value of vector potential at the nucleus of this atom. Using a series of approximations, Pople obtained the second equation listed in the paper for change in total energy of the molecule in a magnetic field in the second order of the theory of excitations. After extended derivations, calculations showed that contributions to the magnetic susceptibility of the molecule from carbon atoms, calculated from formulas derived, are almost isotropic and equal:

$$\chi_d^C \cong 9 \cdot 10^{-6} \text{ cm}^3/\text{mole, and } \chi_p^C = 0.1034$$

$$\langle (\Delta E)^{-1} \rangle \cdot 10^{-15} \text{ cm}^3/\text{mol}.$$ The principal contribution to the anisotropy of cyclopropane is made by interatomic effects. Orig. art. has 3 figures and 24 formulas.

ASSOCIATION: Kazanskiy gosudarstvennyy universitet im. V. I. Ul'yanova-Lenina (Kazan' State University)

SUBMITTED: 06Mar64   ENCL: 00   SUB CODE: GC, G

NO REF SOV: 004   OTHER: 007   JPRS

Card 2/2

2326 Aminova, R. Sh and Plotnikova, O. Ye.

Spravochnik Rabotnika Detskikh Sezonnykh Yasley V Kolkhoze. Alma-Ata,
Kazgosizdat, 1954. 156s. s Ill. 17sm. 10.000 EKZ. 2r. 60k. V Per- Na
Kazakh. Yaz.-
(54-55642)

613.953.4(.22)

L 2810-66   EWT(1)/EWA(h)   GI

ACCESSION NR: AT5021045   UR/3160/64/012/000/0031/0042

AUTHORS: Kozlov, A. V.; Aminova, V. M.

TITLE: Results of comparing theoretical and experimental characteristics of
seismic waves

SOURCE: AN TadzSSR. Institut seysmostoykogo stroitel'stva i seysmologii. Trudy,
v. 12, 1964. Sbornik statey po seysmologii (Collection of articles on seismology),
31-42

TOPIC TAGS: seismic wave, earthquake, damping factor, absorption coefficient,
earth model, earth crust

ABSTRACT: Some results of comparing theoretical and experimental amplitude curves
of seismic waves are described. The discussions are devoted to the possible
presence or absence of lower-velocity layers in the crust and to the possibility
of absorption of seismic-wave energy in the crust. Six variant hypotheses of
earth crustal structure are assumed as models, three of these proposing lower-
velocity layers within the crust. Computed values of amplitude and damping for
each of these were compared with experimental data. The damping factor declines

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ACCESSION NR: AT5021045   3

with increase in focal depth, indicating that no thick layers of lower velocity
occur in the crust. It is not yet possible to state reliably that thin layers of
lower velocity do not occur. A comparison of experimental data on damping with
theoretical computations indicates that damping of seismic waves must occur within
the crust. For a multilayer crust, the absorption coefficients $a_0=0.03$, $a_{1,2}=0.02$,
and $a_3=0.01$ appear to represent the upper limits of absorption in the crust. For
a one-layer crust, a value of $a = 0.03$ gives a value very near the actual. Orig.
art. has: 7 figures and 5 tables.

ASSOCIATION: Institut seysmostoykogo stroitel'stva i seysmologii, AN TadzSSR
(Institute for Earthquake-Proof Construction and Seismology, AN TadzSSR)

SUBMITTED: 00   ENCL: 00   SUB CODE: ES

NO REF SOV: 009   OTHER: 000

Card 2/2

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of tuberculosis. Klin. med. 40 no.12:23-32 D '62.
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AMN SSSR prof. N.A. Shmelev) Ministerstvu zdravookhraneniya
SSSR i Moskovskoy gorodskoy tsentral'noy klinicheskoy
tuberkuleznoy bol'nitsy (glavnyy vrach - zasluzhennyy
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