BUYUKLINSKIY, R.D., inzh. (Ufa)

Transport of trusses. Put' i put.khoz. 7 no.12:25 '63.
(MIRA 16:12)

SULIMA, Yu.G.; BUYUKLI, P.I.

Studying the dissymmetry phenomenon in wheat. Izv. AN Mold.
SSR no.6:50-68 '63.

(MIRA 17:12)

BUYUKLI, P.I.

    Studying the dissymmetry phenomenon in pulse crops. Izv.
    AN Mold. SSR no.6:69-80 '63.   (MIRA 17:12)

BUYUKLI, P.I.

Genetic and practical evaluation of winter wheat developed from spring wheat by controlled conditioning. Agrobiologiia no.4:572-579 Jl-Ag '64.

(MIRA 17:12)

1. Otdel genetiki Akademii nauk Moldavskoy SSR.

BOKOV, G.; VELEV, L.; BUYUKLIYEV, K.; GRINYUK, V.; TKACHENKO, A.;
       LUKOVETS, A., red.

       [The wonderful country of Bulgaria, 1944-1964] Strana
chudesnaia Bolgariia, 1944-1964. Moskva, Pravda, 1964.
278 p.   (MIRA 17:9)

BUYUKLYAN, A.A.

Effect of Matsesta baths on vascular reactions in hypertensives.
Vop.kur.fizioter. i lech.fiz.kul't. 22 no.6:28-36 N-D '57.
(MIRA 11:3)

1. Iz terapevticheskoy kliniki (zav. - prof. M.M.Shikhov) Sochinskogo
instituta revmatizma (dir. - dotsent N.P.Vladimirov)
(MINERAL WATERS, SULFUROUS--PHYSIOLOGICAL EFFECT)
(HYPERTENSION)

BUYUKLYAN, A. A.: Master Med Sci (diss) -- "The effect of Matsesta baths

on the vascular reaction of patients with hypertension (Based on the data

of clinical observations and plethysmographic investigation)". Sochi, 1958.

20 pp (Yerevan State Med Inst, Sochi Inst of Rheumatism), 150 copies (KL, No 6,

1959, 142)

FISENKO, Ye.I.; ORZHESHKOVSKIY, V.V.; BUYUKLYAN, A.A. (Sochi)

1. Modified method of vertical ballistocardiography. Vrach.delo no.11:
128-129 N '60.   (MIRA 13:11)

1. Institut revmatizma Ministerstva zdravookhraneniya RSFSR.
   (BALLISTOCARDIOGRAPHY)

BUYUKLYAN, A.A., kand.med.nauk; VINOGRADOV, N.A., prof.; SHENFIL', L.B.,
     kand.med.nauk; MARKOV, D.A., prof.; GRENADER, A.B.

Reviews and bibliography. Vop.kur., fizioter. i lech. fiz.
kul't 30 no.5:468-472 S-0 '65.

(MIRA 18:12)

1. Predsedatel' Belorusskogo obshchestva fizioterapevtov i
kurortologov (for Markov). 2. Sekretar' Belorusskogo
obshchestva fizioterapevtov i kurortologov (for Grenader).

Buyvol, N.

AUTHORS: Dozorova, R. Buyvol, N., and Kozlova, L. 136-7-18/22

TITLE: Discussion at the Severonikel' Combine of the book, "Metallurgy of Nickel" by V.I. Beregovskiy and N.V.Gudima. (Obsuzhdeniye knigi V.I.Beregovskogo i N.V.Gudimy "Metallurgiya Nikelya" na kombinate Severonikel').

PERIODICAL: "Tsvetnyye Metally", 1957, No.7, pp.85-86. (USSR).

ABSTRACT: More than a hundred engineers and technicians partici-pated in a conference in Monchegorsk in February 1956 organized by the Severonikel' combine to discuss a book on the metallurgy of zinc, published by Metallurgizdat, in 1956. N. I. Gran' welcomed the book as a contribution to the insufficient literature on the subject and some errors and defects of the book were considered by I.S. Ivanov, B.V. Lipin, G.P. Leshke, K.N. Dzakhoz, S.Z. Malkin, P.A. Orlov and R.Ya. Boguslavskaya. Replying for the authors N.V. Gudima attributed some of the omissions to the fact that the book was written in 1954-55 and said the criticism made would be noted. It was decided at the end of the Conference that the book was timely, that the publishers should be asked to produce a second edition in 1958 and that all assistance should be given to the authors

1/2

Buyvol, N.

2/2   Discussion at the Severonikel' Combine of the book 136-7-18/22
       "Metallurgy of Nickel" by V.I. Beregovskiy and N.V.Gudima.
       (Cont.)

       in its preparation.
AVAILABLE: Library of Congress

21357
S/021/61/000/011/004/011
D299/D304

\lor.6000

AUTHORS: Savin, H.M., Academician AS UkrRSR, Van Fo Fy and
             Buyvol, V. M.

TITLE: Concentration of stresses in the neighborhood of two
             holes of a spherical shell

PERIODICAL: Akademiya nauk UkrRSR. Dopovidi, no. 11, 1961,
             1435-1439

TEXT: A sloping spherical shell of radius R is considered, having
two circular holes with radii r_1 and r_2, under the constant internal
pressure q and the shearing stresses Q. The basic equation is

$$\nabla^2 \nabla^2 \Phi + i \nabla^2 \Phi = 0 \qquad (1)$$

where $\Phi = w + ig\varphi$, w and φ being the bending- and stress function
respectively, and $g = \sqrt{12(1 - \nu^2)}/Eh^2$. In the case of a single hole

Card 1/4

Concentration of stresses ...

and axisymmetric loading, the function Φ depends on the coordinate
x only:

$$\bar{\Phi} = iC \ln x + (A + iB)H_0^{(1)}(x\sqrt{i}) \tag{2}$$

where A, B, C are arbitrary constants which are determined by the
boundary conditions, H_0 is Hanckel's function of the first kind and
zeroth order. If the shell has 2 holes which are at a sufficient
distance from each other, then the stressed state near the holes is
described by the function

$$\Phi_0 = ig\varphi^0 + \bar{\Phi}^{(1)} + \bar{\Phi}^{(2)} \tag{3}$$

where φ^0 is the stress function for the unperforated shell, $\bar{\Phi}^{(k)}$ is
of type (2), and k – the number of the hole. If the holes are near
each other, the function (3) has to be considered as the zeroth ap-
proximation only. In this case the functions Φ are sought in the

Card 2/4

Concentration of stresses ...

form

$$\bar{\Phi} = igC \ln x + \sum_{n=1}^{\infty}(A_n + iB_n)x^{-n}\cos_n\theta + \sum_{n=0}^{\infty}(C_n + iD_n)H_n^{(1)}(x\sqrt{i})\cos n\theta$$

(4)

where the constants are determined from the boundary conditions. The boundary conditions yield an infinite system of linear algebraic equations which can be solved for all n. Assuming the constants C, A_n, B_n, C_n, D_n as already determined, and using formulas from the references, one obtains the corrections of the first approximation. Hence the function which solves the problem in the first approxima- tion has the form

$$\bar{\Phi} \approx ig\varphi^0 + \bar{\Phi}^{(1)} + \bar{\Phi}^{(2)} + \Phi_{12}^{(1)} + \Phi_{21}^{(1)}$$

(7)

If the holes are at a distance apart, not below the length of the Card 3/4

Concentration of stresses ...

X

smaller hole-radius, it is not worthwhile to find the second appro-
ximation; anyway, the second approximation cannot be found by the
above method. A numerical example is considered. Computations have
shown that the disturbance due to the holes is of a local character:
It does not reach farther than a hole-diameter's length. Hence 2
neighboring holes do not affect the stressed state if the distance
between them is not smaller than the diameter of the larger hole.
There are 2 figures and 2 references: 1 Soviet-bloc and 1 non-So-
viet-bloc (in translation).

ASSOCIATION: Instytut mekhaniky AN USSR (Institute of Mechanics AS
UkrRSR)

SUBMITTED: June 26, 1961

Card 4/4

AUTHORS: Savin, G. M., Van Fo Fy, and Buyvol, V. M. (Kyyiv)

TITLE: Applying the method of successive approximations to the problems of shallow-shell theory

PERIODICAL: Prykladna mekhanika, v. 7, no. 5, 1961, 487 - 495

TEXT: A spherical, shallow shell of radius R is considered, having m circular holes of arbitrary radius. The shell is under the internal pressure q = const, and the edges of the holes are subjected to a system of external forces. One of the holes is considered as principal and the influence of the holes far from the principal hole (at a distance of at least two hole-diameters) is neglected. It is assumed that k holes are so near that they cannot be neglected. The centers of the holes are denoted by O_j ($j = 1$, 2, ..., k), the hole-radiuses by a_j, and the distances between the hole-centers — by r_{ij}. The stress-strain state in the neighbor-

Card 1/6

Applying the method of ...

hood of a hole is determined by the solution of

$$\nabla^2 \nabla^2 \Phi + i \nabla^2 \Phi = 0, \qquad \Phi = w + ig\varphi, \qquad (1)$$

where w and φ are the bending- and stress functions, $g = \sqrt{12(1 - v)^2/\text{h}^2}$, h being the thickness of the shell. If the shell has one hole only, the stressed state can be determined by means of the function

$$\Phi = C \ln x + (A + iB) H_0^{(i)}(x \sqrt{i}). \qquad (2)$$

The arbitrary constants C, A, B are found from the boundary conditions, and $H_0^{(i)}$ is Hankel's function of the first kind. To completely solve the problem, it is necessary to take also into consideration the contribution (to the stressed state) of a constant external pressure. If the shell has k + 1 holes which are at a sufficient distance from each other, the stressed sate is determined by the function

Card 2/6

Applying the method of ...

$$\Phi_0 \approx ig\varphi^0 + \sum_{j=0}^{k} \Phi^{(j)}$$ (4)

where φ^0 is the stress function for an unpunctured shell, and $\Phi^{(j)}$ is analogous to (2). If the holes are near to each other, function (4) has to be considered as the zeroth approximation only. Thereby the boundary conditions will not be satisfied completely at each of the holes. This discrepancy in the boundary conditions is narrowed down by introducing the function

$$\Phi_1^* = \Phi_0 + \sum_{j=1}^{k} (\Phi_{0i}^{(1)} + \Phi_{i0}^{(1)}).$$

This function can be considered as the solution of the problem in the first approximation, if k holes which are near the principal hole, do not interact. As, however, these holes do interact, other

Card 3/6

Applying the method of ...

Φ-function have to be introduced to remove the inconsistencies in the boundary conditions. Hence the function which solves the problem in the first approximation is

$$\Phi_1 = ig\varphi^0 + \sum_{l=0}^{k} \Phi^{(l)} + \sum_{l=1}^{k} (\Phi_{0l}^{(1)} + \Phi_{l0}^{(1)} + {}^{(l-1)}\Phi_{0l}^{(1)} + {}^{(l+1)}\Phi_{0l}^{(1)}).$$

All the functions Φ have to be determined as solutions of the basic Eq. (1). Taking into consideration the conditions at infinity, such a solution is expressed by

$$\Phi = igC \ln x + \sum_{n=1}^{\infty} x^{-n}(a_n e^{i\alpha_n}\cos n\theta + b_n e^{i\beta_n}\sin n\theta) +$$

$$+ \sum_{n=0}^{\infty} (c_n e^{i\varphi_n}\cos n\theta + d_n e^{i\psi_n}\sin n\vartheta) H_n^{(1)}(x\sqrt{i}).$$

(5)

where a, b, c, d; α, β, φ, ψ, and C are unknown constants by means

Card 4/6

of which the boundary conditions can be satisfied. In the second approximation, the effect of forces denoted by $\Phi_{j0}(1)$ is taken in-to account. The process of successive approximations converges and a practically exact solution of the problem is given by the function

$$\widetilde{\Phi} = ig\varphi^0 + \sum_{j=0}^{k} \Phi^{(j)} + \sum_{j=1}^{k} \sum_{l=1}^{\infty} (\Phi_{0j}^{(l)} + \Phi_{j0}^{(l)} + {}^{(l-1)}\Phi_{j0}^{(l)} + {}^{(l+1)}\Phi_{j0}^{(l)}). \tag{6}$$

As an example, a shell with two circular holes of radiuses a_1 and a_2 is considered. In this case, solution (5) reduces to

$$\overline{\Phi} = igC \ln x + \sum_{n=1}^{\infty} x^{-n}(A_n + iB_n)\cos n\vartheta +$$

$$+ \sum_{n=0}^{\infty} (C_n + iD_n) H_n^{(1)}(x\sqrt{i})\cos n\vartheta. \tag{7}$$

Card 5/6

S/198/61/007/005/003/015
D274/D303

Applying the method of ...

The arbitrary constants in Eq. (7) are determined from a system of linear algebraic equations. Thereupon, the formulas for the stressed state are derived. Figures show the distribution of stresses and moments at a cross section through the hole-center line. It is evident from these curves that, under certain conditions, the disturbences in the stress field due to the holes, do not reach further than a diameter's length. The stress function T_θ is most significant with respect to magnitude and distribution of stresses. There are 5 figures and 3 references: 2 Soviet-bloc and 1 non-Soviet-bloc (in translation).

ASSOCIATION: Instytut mekhaniky AN URSR (Institute of Mechanics
             AS UkrSSR)

SUBMITTED: June 30, 1961

Card 6/6

32563

S/198/61/007/006/007/008
D299/D301

ID 6000   1327

AUTHOR: Buyvol, V. M. (Kyyiv)

TITLE: Applying the method of successive approximation to
            the plane problem, for certain multiply-connected re-
            gions

PERIODICAL: Prykladna mekhanika, v. 7, no.6, 1961, 672-675

TEXT: Schwartz's method of successive approximations is applied
studying the stressed state of a circular plate with m cyclically
disposed circular holes. The uniformly distributed load p is ap-
plied to the external contour of the plate. Polar coordinates are
used. First, an approximate solution is sought for an eccentric
ring. Denoting by θ_0 the angle between central and local polar co-
ordinates, one obtains for the solution

$$F_o = \frac{pR^2}{2}\xi^2; \quad \sigma_r^{(o)} = \sigma_\theta^{(o)} = -p; \quad \tau_{r\theta}^{(o)} = 0 \qquad (3)$$

Card 1/3

Applying the method of ...

and

$$F_1 = pR^2 \eta_a^2 \ln \eta; \quad \sigma_\rho^{(1)} = p\left(\frac{\eta a}{\eta}\right)^2; \quad \sigma_\varphi = -p\left(\frac{\eta a}{\eta}\right)^2; \quad \tau_{\rho\varphi}^{(1)} = 0; \quad \eta_a = \frac{a}{R} \quad (4)$$

where a is the hole radius and F the stress function. Expanding the stresses $\sigma_r^{(1)}$ and $\tau_{r\theta}^{(1)}$ in Fourier series, and seeking the function F_2 in the form of a corresponding series, one obtains the sought for solution in series form. The convergence of these series can be accelerated. Formulas (3), (4) plus the corresponding formula for F_2 are the solution to the problem of an eccentric ring, provided the least distance between the hole contours is not smaller than the hole radius. Further, a plate with m cyclic holes is considered. The influence of two neighboring holes (neglecting the influence of the other holes) is determined by means of the stress functions $\Phi(\theta)$. The approximate formula

Card 2/3

Applying the method of ...

32563
S/198/61/007/006/007/008
D2 99/D301

$$\overline{\Phi}(\Theta_2) \approx \rho R^2 \eta_a^2 \ln (\eta^2 - 2\eta_0 \eta \cos\gamma + \eta_0^2) \quad (\gamma = \varphi - \varphi_0)$$

is obtained. The formulas for the stressed state are derived. It was found that the influence of neighboring holes on the stressed state near a given hole mainly affects the tangential stresses. From a figure which shows the stresses state of a plate with 6 circular holes, it is evident that the presence of a neighboring hole disturbs the stress field near the hole under consideration. There are 2 figures and 6 Soviet-bloc references.

ASSOCIATION: Instytut mekhaniky AN URSR (Institute of Mechanics AS UkrRSR)

SUBMITTED: December 30, 1960

Card 3/3

39710
S/198/62/008/001/003/005
D299/D302

10.6000   1327

AUTHOR: Buyvol, V. M. (Kyyiv)

TITLE: Action of concentrated forces on a plate with holes

PERIODICAL: Prykladna mekhanika, v. 8, no. 1, 1962, 42-47

TEXT: A circular plate of radius R is considered, having m cycli-
cal holes of radius a; m concentrated forces P are applied to the
plate. The method of successive approximations is used. The con-
centrated forces P are expressed in the form of delta-functions,
which can be readily expanded in series, viz.:

$$P = \frac{mP}{2\pi R} \left[1 + 2 \sum_{n=1}^{\infty} \cos mn\alpha \right] \qquad (2)$$

Card 1/6

Action of concentrated ...

According to Eq. (2), the solution to the problem can be divided
in two: The solution for a load corresponding to the constant term
of Eq. (2), and the solution for a load corresponding to the other
terms of that equation. The first solution was obtained by the au-
thor in an ealier article (same periodical). The second solution is
dealt with in the present article. Approximate expressions are de-
rived for the stresses. Thus, for the stress component σ_ρ one ob-
tains in the zeroth-, first- and second approximation respectively
the formulas:

$$\sigma_\rho^{(0)} \approx - \frac{4P}{\pi R} \; \frac{1}{1 - \xi_0^2 - 2\xi_0 \eta_1 \cos \beta_1} \qquad (6)$$

Card 2/6

Action of concentrated ...

$$\sigma_{\rho}^{(1)} = \frac{Pa_{o}\lambda_{1}^{2}}{\mathcal{T}R} + \frac{P}{\mathcal{T}R} \sum_{n=1}^{\infty} \left\{ \left[(n + 2)b_{n} - na_{n} \right] \lambda_{1}^{2} + (n + 2)(a_{n} - b_{n}) \right\} \times$$

$$\times \lambda_{1}^{n} \cos n\beta_{1} \qquad\qquad (9)$$

$$\sigma_{r}^{(2)} = - A \left\{ 1 + \sum_{n=1}^{\infty} \left[(n - 1)\xi^{-2} + n - 2 \right] (n + 1)x^{n} \cos n\alpha \right\} \quad (11)$$

Card 3/6

Action of concentrated ...

The complete formulas (6), (9), (11), in conjunction with the so-
lution to the problem of an eccentric ring loaded by the force
$-P/\pi R$, describe the stressed state of an eccentric ring under the
action of two concentrated forces. The error in the solution does
not exceed 10%, provided the size of the holes is not greater than
the smallest distance between them. The stress function which de-
scribes the stressed state of an eccentric ring, whose external
contour is under the stresses

$$\sigma_r = -\frac{2P}{\pi R} \sum_{n=1}^{\infty} \cos 2n\alpha$$

has the form

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S/198/62/008/001/003/005
Action of concentrated D299/D302

$$F(\Theta_o) \approx f_o(\Theta_o) + f_1(\Theta_o) + f_2(\Theta_o) \qquad (12)$$

As the zeroth approximation one takes the function

$$\Phi = \sum_{n=1}^{m} F(\Theta_n) \qquad (\Theta_k = (k - 1)\Theta_o)$$

(for a plate with m holes). In the first approximation, formulas
are derived which make allowance for the influence (on the stressed
state near a hole) of neighboring holes. Adding together the stres-
sed state, described by the obtained formulas, one obtains the to-
tal stressed state for a plate with 6 holes, under the action of
6 concentrated forces. A figure shows (for comparison) the theore-
tical and experimental stress distribution in the neighborhood of
one of the holes; the experimental measurements were conducted by

Card 5/6

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S/198/62/008/001/003/005
D299/D302

Action of concentrated ...

the optical-polarization method. There are 2 figures and 4 refe-
rences: 3 Soviet-bloc and 1 non-Soviet-bloc (in translation).

ASSOCIATION: Instytut mekhaniky AN URSR (Institute of Mechanics
              AS UkrRSR)

SUBMITTED: December 30, 1960

Card 6/6

ACCESSION NR: AP4037990   S/0198/64/010/003/0263/0270

AUTHOR: Buyvol, V. M. (Buyvol, V. N.) (Kiev); Goloborod'ko, S. O.
(Goloborod'ko, S. A.) (Kiev); Shnerenko, K. I. (Kiev)

TITLE: Stress distribution in a spherical shell with a hole
stiffened on the edge by an elastic ring

SOURCE: Pry*kladna mekhaŋika, v. 10, no. 3, 1964, 263-270

TOPIC TAGS: spherical shell, shallow shell, spherical shallow
shell, stress concentration, stress distribution, minimum stress
concentration

ABSTRACT: The stress field around a circular hole in a shallow spher-
ical shell under uniform internal pressure is investigated. The edge
of the hole is stiffened by a thin elastic ring which is rigid in
flexure and in tension. The hole has a cover transmitting only shear
stresses. All these component parts (the shell proper, the stiffening
ring, and the hole cover) are treated separately, and the forces and
moments acting on them are calculated taking into account the inter-
action between shell and ring, and ring and cover. The effect of
Card 1/2

ACCESSION NR: AP4037990

rigidities of the stiffening ring on the stress distribution around
the hole is evaluated in numerical examples, and it is shown that by
varying the flexural and tensile rigidities a combination of them
can be found that will make the stress concentration at the hole edge
a minimum. The values of rigidity parameters for such an optimum
ring and for an almost   perfectly rigid ring are determined. Orig.
art. has: 13 formulas and 3 tables.

ASSOCIATION: Instytut mekhaniky* AN URSR (Institute of Mechanics,
AN URSR)

SUBMITTED: 27Apr63   DATE ACQ: 12Jun64   ENCL: 00

SUB CODE: AS   NO REF SOV: 007   OTHER: 000

Card 2/2

ACC NR: AP7002556 (A,N)   SOURCE CODE: UR/0413/66/000/023/0037/0037

INVENTOR: Buyvol-Kot, Yu.I.; Chuprov, M.Ye.; Tsybayev, B.G.; Akimov, V.M.

ORG: none

TITLE: Dipole-slot antenna. Class 21, No. 189032

SOURCE: Izobreteniya, promyshlennyye obraztsy, tovarnyye znaki, no. 23, 1966, 37

TOPIC TAGS: slot antenna, dipole antenna, waveguide antenna

ABSTRACT: An Author Certificate has been issued for a dipole-slot antenna which comprises a symmetrical dipole and a waveguide slot radiator in the form of a shortcircuited section of a rectangular waveguide. To secure separate reception or transmission of mutually perpendicular electromagnetic signals in a wide range of frequencies, the symmetrical dipole is placed above the waveguide slot radiator in parallel to the slot.

SUB CODE: 09/ SUBM DATE: 18Mar65 / ATD PRESS: 5113

Card 1/1   UDC: 621.396.677.71

BUYVOL, V.N. [Buivol, V.M.] (Kiyev)

Biharmonic problem for multiconnected systems with cyclic symmetry.
Prykl. mekh. 5 no.3:276-287 '59.   (MIRA 13:2)

1.Institut stroitel'noy mekhaniki AN USSR.
        (Elastic plates and shells)

BUYVOL, V.N. [Buivoï, V.M.] (Kiyev)

Experimental investigation of the stressed state of
multiconnected regular plates. Prykl.mekh. 6 no.3:
328-334 '60.   (MIRA 13:8)

1. Institut stroitel'noy mekhaniki AN USSR.
          (Elastic plates and shells)

BUYVOL, V.N. [Buivol, V.M.] (Kiyev)

Using the optical method in determining stresses in the vicinity of trapezoid holes in a circular plate. Prykl.mekh. 7 no.2:207-212 '61.

(MIRA 14:4)

1. Institut mekhaniki AN USSR.

(Elastic plates and shells)

BUYVOL, V. N. Cand Phys-Math Sci -- "Plane problems of the theory of elasticity

for multiply connected regions with cyclic symmetry." Dnepropetrovsk, 1961

(Min of Higher and Secondary Specialized Education UkSSR. Dnepropetrovsk State

Univ im 300th Anniversary of the Reunion of the Ukraine and Russia). (KL, 4-61, 182)

-9-

SAVIN, G.N. [Savin, H.M.], akademik; VAN FO FY, G.A.; BUYVOL, V.N. [Buivol, V.M.]

Concentration of stresses near two apertures in a spherical shell. Dop. AN URSR no.11:1435-1439 '61. (MIRA 16:7)

1. Institut mekhaniki AN UkrSSR. 2. AN UkrSSR (for Savin). (Elastic plates and shells)

SAVIN, G.N. [Savin, H.M.] (Kiyev); VAN FO FY, G.A. [VAN FO FY, H.A.] (Kiyev); BUYVOL, V.N. [Buivol, V.M.] (Kiyev)

Applying the method of consecutive approximations to certain problems in the theory of shallow shells. Prykl.mekh. 7 no.5:487-495 '61. (MIRA 14:10)

1. Institut mekhaniki AN USSR.
                    (Elastic plates and shells)

BUYVOL, V.N. [Buivol, V.M.] (Kiyev)

Applying the method of successive approximations to the plane
problem for certain multiconnected regions. Prykl.mekh. 7
no.6:672-676 '61.
(MIRA 14:11)

1. Institut mekhaniki AN USSR.
(Strains and stresses)

S/879/62/000/000/006/088
D234/D308

AUTHORS: Savin, G. N., Van Fo-Fy, G. A. and Buyvol, V. N. (Kiev)

TITLE: A spherical shell weakened by two unequal circular holes

SOURCE: Teoriya plastin i obolochek; trudy II Vsesoyuznoy konfe-
           rentsii, L'vov, 15-21 sentyabrya 1961 g. Kiev, Izd-vo
           AN USSR, 1962, 89-93

TEXT: Using the results of two previous papers by G. N. Savin,
the authors obtain the first-order correction for the above pro-
blem. The solution in the first approximation is $\bar{\Phi}_1 = ig\varphi^0 + \bar{\Phi}^{(1)} +$
$+ \bar{\Phi}^{(2)} + \bar{\Phi}_{21}^{(1)} + \bar{\Phi}_{12}^{(1)}$, where the first term corresponds to a shell
without holes, the second and third are given by

$$\bar{\Phi}^{(k)} = iC^{(k)}\ln x_k + (A^{(k)} + iB^{(k)})H_0^{(1)} (x_k \sqrt{i}) \quad (k = 1,2) \qquad (3)$$

Card 1/2

A spherical shell...

and the last two by

S/879/62/000/000/006/088
D234/D308

$$\overline{\mathcal{Q}} = igC \ln x + \sum_{n=1}^{\infty} (A_n + iB_n)x^{-n}\cos n\theta + \sum_{n=0}^{\infty} (C_n + iD_n)H_n^{(1)}(x\sqrt{i})\cos n\theta$$

(4)

It is assumed that a constant internal pressure acts on the shell and that the holes are provided with covers which transfer only shearing forces to the shell. Numerical calculations give satisfactory accuracy if the distance between the holes is not smaller than the radius of the smaller hole. There are 5 figures.

Card 2/2

BUYVOL, O. N.

⑫

S/198/62/008/005/008/009
D234/D308

AUTHOR: Botte, O. V.

TITLE: Dissertations defended in 1961 at the Institutes of the
            Division of Technical Sciences, AS UkrSSR, in the
            field of mechanics

PERIODICAL: Akademiya nauk Ukrayins'koyi RSR. Instytut mekhaniky.
            Prikladna mekhanika, v. 8, no. 5, 1962, 571-575

TEXT: The following dissertations were presented by the collabora-
tors of the above section and approved: For the degree of Candidate
of Technical Sciences: Instytut mekhaniky (Institute of Mechanics):
Vasyl' Mykolayovych Buyvol, Aspirant: 'Plane problems of the theory
of elasticity for multiply-connected regions with cyclic symmetry',
on March 16, 1961, at Dnipropetrovsk Universty. Yaroslav Mykhaylo-
vich Hryhorenko, Junior Scientific Collaborator: 'Stressed state
of round plates and conical shells of linearly varying thickness
under asymmetric loads', on April 6, at Dnipropetrovsk University.
Igor Tymofiyovych Selezov, Aspirant, 'Investigation of the propa-
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S/198/62/008/005/008/009
D234/D308

gation of elastic waves in plates and shells', on June 19, at Ky-
yivs'kyy politekhnichnyy instytut (Kiev Politechnic Institute),
Andriy Feofanovych Ulitko, Aspirant, 'Solution of 3-dimensional
problems of the theory of elasticity by the method of vector eigen-
functions', on September 26, at Kiev University. Mikhaylo Petrovych
Petrenko, Junior Scientific Collaborator, 'Transverse and longi-
tudinal vibrations in short rods of constant and variable thick-
ness, due to impacts', on October 24, at Kiev University. Mariya
Dmytrivna Synyavs'ka, Junior Scientific Collaborator, 'Increase of
wear resistance of piston rings of integral combustion engines
with the aid of galvanic coating', on October 24, at Kyyivs'kyy
avtomobil'no dorozhnyy instytut (Kiev Institute of Automobiles and
Highways). Heorkiy Ivanovych Dybenko, Engineer, 'Change of strength
and deformability of ACП (DSP) plastics in time at increased tem-
peratures', on November 28, at Kiev Institute of Automobiles and
Highways. For the degree of Doctor of Technical Sciences: Instytut
elektrozvaryuvannya im. Ye. O. Patona (Institute of Electric Weld-
ing imeni Ye. O. Paton): Boris Oleksiyovych Movchan, Senior Scien-
tific Collaborator, Candidate of Technical Sciences, 'Microscopic

Card 2/3

Dissertations defended in ...
S/198/62/008/005/008/009
D234/D308

inhomogeneities in cast alloys', on May 16, at the Siberian sections
of AS USSR. For the degree of Candidate of Technical Sciences: In-
stytut mashynoznavstva ta avtomatyky (Institute of Machine Science
and Automation): Hryhoriy Semenovyen Kit, Junior Scientific Colla-
borator, 'Approximate solution of the problem of free torsion',
on March 16, at Dnipropetrovsk University. Hryhoriy Vasyl'ovych
Plyatsko, Junior Scientific Collaborator, 'Nonstationary problems
of heat conduction and thermoelasticity', on April 20, at the In-
stitute of Mechanics of AS UkrSSR. Mykola Yuriyovych Shvayko, As-
pirant, 'Some problems of elastoplastic torsion of prismatic rods',
on December 25, at L'viv University. Instytut metalokeramiky i
spetsial'nykh splaviv (Institute of Metal Ceramics and Special Al-
loys): Volodymyr Ivanovych Kovpak, Aspirant: 'Investigation of du-
rable strength during programmed change of load and temperature',
on October 23, at Kiev Polytechnic Institute.

Card 3/3

L 17740-63   EWP(r)/EWT(m)/BDS   AFFTC
ACCESSION NR: AP3006955   S/0021/63/000/008/1035/1040

AUTHOR: Buyvol, V. M.

TITLE: Shallow spherical shell weakened by an eccentric circular hole.

SOURCE: AN UkrSSR. Dopovidi, no. 8, 1963, 1035-1040

TOPIC TAGS: shallow spherical shell, hole weakened spherical shell, stress distribution, stress concentration, clamped spherical shell, hinged spherical shell

ABSTRACT: The stress distribution in a shallow spherical shell with a circular hole placed at a certain distance from the top is analyzed. The shell is under internal pressure, and the hole has a cover which transmits only the shearing forces. Expressions for forces and moments in radial and circumferential sections of a shell without a hole are determined for cases of clamped and of hinged edge of the shell. In order to satisfy the boundary conditions on the edge of the hole, an additional function is introduced which, in connection with the initial equation, furnishes an

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L 17740-63

ACCESSION NR: AP3006955

infinite system of linear algebraic equations from which an approximate solution can easily be obtained. In order to evaluate the influence of the hole on the state of stress, a numerical computation was carried out, and results for both cases of shell support are given in a table. The stress concentration, the support effect, and the accuracy of the solution as related to the distance of the hole from the edge of the shell are discussed. Orig. art. has: 1 table and 10 formulas.

ASSOCIATION: Insty*tut mekhaniky* AN URSR (Institute of Mechanics AN URSR)

SUBMITTED: 26Jun62   DATE ACQ: 27Sep63   ENCL: 00

SUB CODE: AP   NO REF SOV: 002   OTHER: 001

Card 2/2

BUYVOL, V.N. [Buivol, V.M.] (Kiyev)

    Stressed state of shallow spherical shells with circular holes.
    Prykl.mekh. 8 no.2:212-216 '63.   (MIRA 16:3)

    1. Institut mekhaniki AN UkrSSR.
                  (Elastic plates and shells)

BUYVOL, V. N.[Buivol, V. M.] (Kiyev)

Shallow spherical shell weakened by symmetrically placed
holes. Prykl. mekh. 9 no.1:52-58   '63.

(MIRA 16:4)

1. Institut mekhaniki AN UkrSSR.

(Elastic plates and shells)

BUYVOL, V.N. [Buivol, V.M.]

Concentration of stresses in a spherical shell near a reinforced hole. Dop. AN URSR no.11:1460-1464 '63.

(MIRA 17:12)

1. Institut mekhaniki AN UkrSSR.

L 50536-65   EWT(d)/EWT(l)/EWT(m)/EWP(w)/EWA(d)/T-2/EWP(k)/EWA(h)   Ff-4
ACCESSION NR: AP5011495   EM   UR

AUTHORS: Tsurpal, I. A.; Kayuk, Ya. F.; Buyvol, V. N.

TITLE: Second All-Union Symposium on Propagation of Elastic-Plastic

SOURCE: Prikladnaya mekhanika, v. 1, no. 3, 1965, 140-141

TOPIC TAGS: wave propagation, continuum mechanics, elastic wave, plastic wave,
viscoelasticity

ABSTRACT: A brief report is given on the second All-Union symposium

viscoelastic and viscoplastic media; 4) soil dynamics; 5) experimental

Card 1/2

L 50536-65
ACCESSION NR: AP5011595

(various text); A) shock waves in destructive processes

ASSOCIATION: none

N. REF SOV: 000   OTHER: 000

Card 2/2

BUYVOL, V.N. (Kiyev)

Applying Sneddon's approximation to the problems of a strip.
Prikl. mekh. 1 no.4:127-130 '65.   (MIRA 18:6)

1. Institut gidromekhaniki AN UkrSSR.

ACC NR: AP6024327   SOURCE CODE: UR/0021/66/000/004/0437/0441

AUTHOR: Buyvol, V. M. -- Buyvol, V. N.; Huz', O. M. -- Guz', A. N.

ORG: Institute of Hydromechanics, AN UkrSSR (Instytut hidromekhaniky AN URSR);
Institute of Engineering, AN UkrSSR (Instytut mekhaniky AN URSR)

TITLE: Two cylindrical shells in an incompressible flow

SOURCE: AnUkrRSR. Dopovidi, no. 4, 1966, 437-441

TOPIC TAGS: cylindric shell, shell structure, incompressible flow

ABSTRACT: The dynamic phenomena occurring in an elastic cylindrical shell in a poten-
tial incompressible flow have been studied in detail by V. V. Bolotin (Fizmatgiz,
1961), who assumed that the shell was thin and infinitely long, whereas the flow was
along the generatrix of the shell. This paper makes the same assumptions in studying
two identical parallel cylindrical shells of thickness h and radius R. The authors
start from the theory of sloping shells where the tangential components of the energy
forces may be neglected and from linearized hydrodynamic equations. Subjects treated
are waves of certain phase velocity propagating along the shells, the contents in-
volved, resultant finite equations, application of Kramer's rule, lowest flutter rate,
and application of Il'yushin's "law of plane intersections." The paper was presented
by Academician AN UkrSSR H. M. Savin. Orig. art. has: 16 formulas.

SUB CODE: 20/ SUBM DATE: 07Aug65/ ORIG REF: 008/ OTH REF: 001
Card 1/1

IMAYEV, E. (g.Sukhumi); BUYUKYAN, S.(g.Petrodvorets, Leningradskoy obl.);
VOROZHKO, V., (g.Dnepropetrovsk); BURENIN, V. (g.Yegor'yevsk,
Moskovskoy obl.); SAMYLOV, I. (Krasnoyarskiy kray); TARACHENKO, I.
(g.Mstislavl', Mogilevskoy obl.)

Suggestions of readers. Radio no.4:47 Ap '60.

(MIRA 13:8)

(Radio)

BUYYA, R. A.

PA 34/49T15

USSR/Medicine - Nervous System,   Sep/Oct 48
Medicine - Effects of Electricity
Medicine - Nervous System, Physiology

"Physiological Analysis of the Function of the
Afferent Aortal Nerve (N. Depressoris): I,
Reaction of the Vasomotor System to Irriga-
tion of the Aortal Nerve by Stimuli of Diverse
Frequency," R. A. Buyya, Div Physiol of Nervous
Syst, Inst Physiol, Acad Med Sci USSR, 8 pp

"Fiziol Zhur SSSR" Vol XXXIV, No 5

Describes experiments on stimulation of the cen-
tral ring of the aortal nerve of rabbits by

34/49T15

USSR/Medicine - Nervous System,   Sep/Oct 48
Effects of Electricity
(Contd)

discharges from a condenser. Frequency used
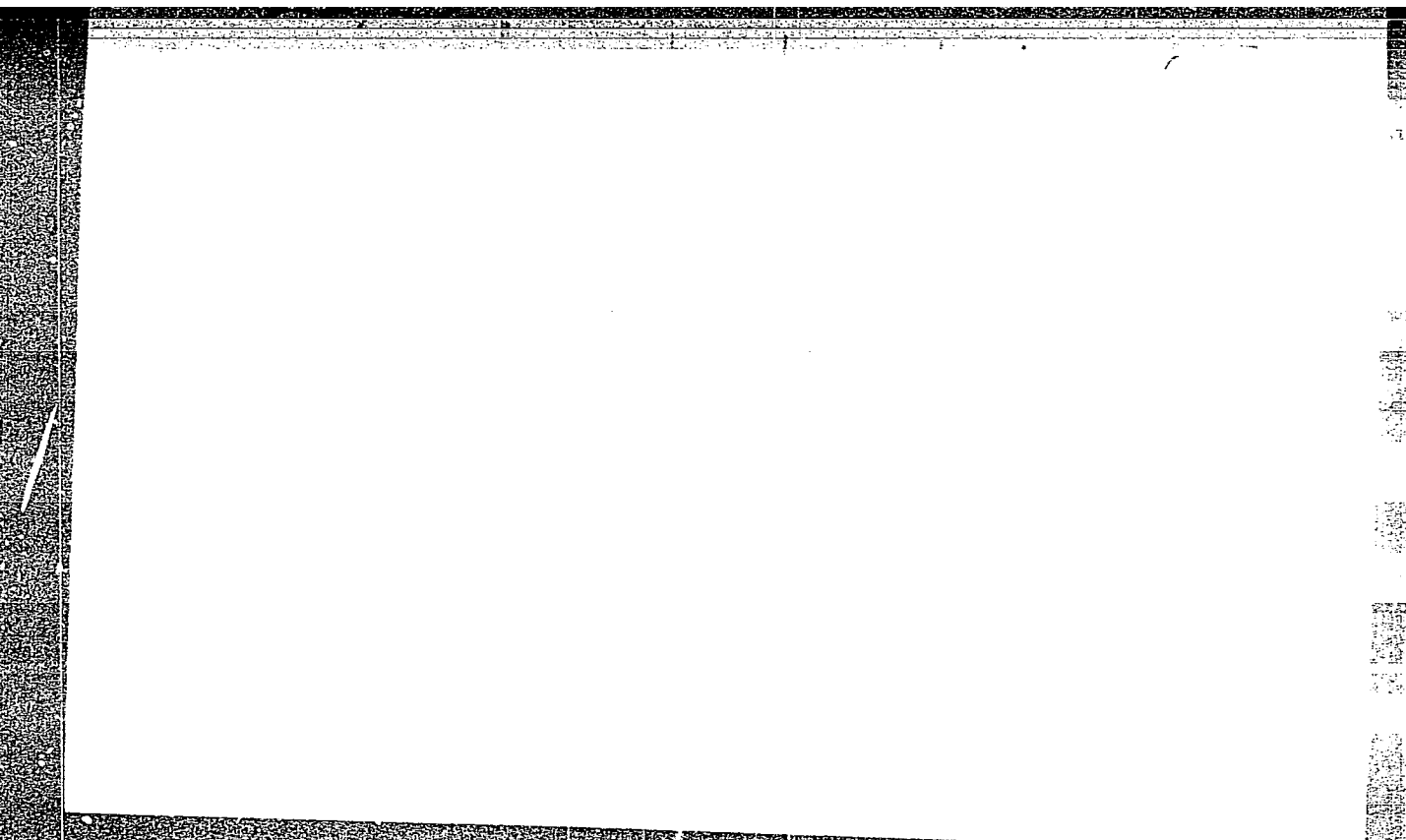was 1 - 850 cycles. Submitted 7 Feb 47.

34/49T15

BUZ,A.I.

Quantitative determination of instability energy. Meteor.i gidrol.
no.2:32-33 F '52.
(MLRA 8:9)

1. GUMS Litovskoy SSR, Vilnius.
            (Meteorology) (Atmosphere)

AUTHOR: Buz, A.I.

TITLE: The Variation of the Velocity of Wind in the Lower Layer of the Atmosphere

PERIODICAL: Nauchn. Soobshch. AS LitSSR, In-t geol. i geogr., 1957, Vol 5, pp 31 - 39
(Res. Lit., Engl.)

ABSTRACT: A comparison of the signs of $\frac{\partial |s|}{\partial t}$ with the signs of $\frac{\partial |s|}{\partial z}$ and $\frac{\partial^2 |s|}{\partial z^2}$
for different seasons (t is the time, z is the vertical coordinate, s =
= u + iv, u and v are the horizontal components of the vector of wind
velocity) is carried out for examining the question on the effect of the
variation of wind velocity with altitude on the time variations of
velocity, on the basis of the analysis of actual material from observations.
Moreover, the diurnal course of the expectancy of coincidence in signs of
$\frac{\partial |s|}{\partial t}$ and $\frac{\partial |s|}{\partial z}$ is analyzed. It is stated that by day the opposite signs
of the variations of the wind velocity with time and with altitude are
predominant. In the cold season of the year, the coincidence in the course
of variation of the wind with time and with altitude is somewhat greater in

Card 1/2

The Variation of theVelocity of Wind in the Lower Layer of the Atmosphere   SOV/169-59-2-1723

the morning and, especially, in the evening hours. A method for determining the turbulence factor is described and a comparison of the results obtained with the results of L.D. Laykhtman (Tr. Gl. geofiz. observ., 1952, Nr 37/99) is presented. (UGMS, Lit. SSR).

Sh.A. Musayelyan

V

Card 2/2

Buz, A.I.

3(8)   PHASE I BOOK EXPLOITATION   SOV/2263

USSR. Glavnoye upravleniye gidrometeorologicheskoy sluzhby

Sbornik rabot po sinoptike, Nr. 2 (Collection of Articles on Synoptics, nr 2)
. Leningrad, Gidrometeoizdat, 1958. 157 p. 1,200 copies printed.

Ed. (Title page): G. D. Zubyan; Ed. (Inside book): R. V. Grosman; Tech. Ed.:
    A. N. Sergeyev.

PURPOSE: This collection of articles is intended for meteorologists.

COVERAGE: The book contains 12 abridged articles written by synoptic
    meteorologists of the Weather Bureau, the Gidrometbyuro, and the AMSG (Air
    Weather Station of the Civil Air Fleet). All articles deal with the local
    features in the development of atmospheric processes and weather. There
    are no personalities mentioned. There are 35 references: 34 Soviet
    and 1 German.

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BUZ, A.

Lietuvos TSR mokslu akademija. Geologijos ir geografijos institutas
Geografinis metrastis, I (The Geographical Yearbook, I) Vilnius, 1958. 401 p.
Errata slip inserted. 1,000 copies printed.

Sponsoring Agency: Lietuvos TSR geografine draugije.

Editorial Board: A. Basalykas, E. Malisuka, Editor-in-Chief (President),
V. Chomskis (Vice President), V. Gudelis (Vice President), K. Kaubrys,
Managing Ed. (Secretary); S. Mardyte, and S. Tarvydas.

PURPOSE: This book is intended for geographers and for the general reader
interested in the geography of Lithuania.

COVERAGE: The first volume of the Geografical Yearbook presents articles by 22
authors covering aspects of the climatology, geomorphology, geology of the
Quaternary, limnology, economic geography, etc. of Lithuania. The publication
also includes a section devoted to book reviews and a chronicle of scientific
events. Articles appear in Lithuanian with English and Russian resumes. Ref-
erences accompany each article.

Chomskis, V. Studies of the Lithuanian Geographical Environment and
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(17)

BUZ, A.I.

Determining the possibility of convective motions by the layer method. Sbor.rab.po sinop. no.2:66-82 '58.   (MIRA 12:6)

1. Aviameteorologicheskaya stantsiya v Grazhdanskom vozdushnom flote, Vil'nyus.
(Weather forecasting)

BUZ, A.I.

Effect of the shore line on air currents and distribution of precipitation. Sbor. rab. po sinop. no.5:3-12 '60. (MIRA 14:8)

1. Upravleniye gidrometeorologicheskoy sluzhby Litovskoy SSR.
(Baltic Sea region—Precipitation (Meteorology)

3,5710

30996
S/124/61/000/009/017/058
D234/D303

AUTHOR: Buz, A.I.

TITLE: On the problem of determining the stability of the
              atmosphere with respect to vertical motion

PERIODICAL: Referativnyy zhurnal. Mekhanika, no. 9, 1961, 76,
              abstract 9 B552 (Vilniaus univ. Mokslo darbai, 1958,
              19, 171-183)

TEXT: A method of calculating the energetic characterist-
ics of thermal instability of the atmosphere is offered which is a
kind of generalization of the well-known layer method. The general-
ization refers mainly to the method of calculating these character-
istics from the data of vertical temperature sounding. If a layer
between isobaric surfaces is considered one can calculate three
quantities – H, H_c, H_B with the aid of an aerological diagram; H
is the dynamical thickness of the layer in question and H_c and H_B
differ from H by being calculated from temperatures taken respect-

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30996

On the problem of determining...

ively from the dry and the moist adiabatic curve. Then the following formulae are valid:

$$A = \frac{n}{1 - n} \left[(H_B - H) - n (H_B - H_c) \right] \qquad (20'')$$

$$N = 1 - \left[(H - H_c)/(H_B - H_c) \right]^{\frac{1}{2}} \qquad (21')$$

$$M = (H_B - H)/(H_B - H_c) \qquad (22')$$

where n is the cloudiness in fractions of 1, A the energy of instability, N the optimum mass part of ascending motions of the air and M the maximum part possible of ascending motions of the air. It may be remarked that according to (21') and (22') the following relation is valid:

$$N = 1 - (1 - M)^{\frac{1}{2}}$$

which is more convenient for calculating N. Several examples of the use of A, M, N for forecasting purposes are given, viz. in forecasting the quantity of convective cloudiness, thickness of

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On the problem of determining...   S/124/61/000/009/017/058
                                          30996
                                          D234/D303

of cloud layers, intensity of precipitation as much as in forecast-
ing of wind near Earth. Methods applied to these purposes have been
tested on few data of two points - Kaunas and Kaliningrad, and re-
quire an investigation of more numerous material.. / Abstracter's
note: Complete translation_/

Card 3/3

BUZ, A.I.

Determining the thermodynamic stability of a boundary layer
of the atmosphere on the basis of pilot balloon observation
data. Meteor. i gidrol. no.8:25-30 Ag '64   (MIRA 17:8)

1. Upravleniye gidrometeorologicheskoy sluzhby Litovskoy SSR.

ACC NR: AR6016956   SOURCE CODE: UR/0169/65/000/012/B064/B064

AUTHOR: Buz, A.I.

TITLE: On fog formation in Vil'nyus region during cold times of the year

SOURCE: Ref. zh. Geofizika, Abs. 12B389

REF SOURCE: Tr. Vil'nyussk. gidrometeorol. observ., vyp. 1, 1964, 131-139

TOPIC TAGS: fog, fog formation, fog formation forecasting, ATMOSPHERIC TEMPERATURE, HYDROMETEOROLOGY / VILNYUS

ABSTRACT: Hydrothermal characteristics of the ground layer, their influence upon fog formation, and local applicability of the TsIP criteria of fog formation were studied. Oct. - March cold periods of 1957-1960 were used. 10 processes, analogous to the Gal' tsov process were differentiated from a study of dew point (τ) variation during the night. About half of the processes had a radiative character; in 66% of cases they were observed at cloudiness ratings of 0-6. Fog formation and ceilings under 100 m are probable with all process types if $t - \tau$ does not increase during the night; if, at 18 or at 21 o'clock $t - \tau = 1°$, the probability of fog formation at 7 - 10 cloudiness rating reaches 30%, and that of fog and low clouds – 65%. Larger ... ... decrease this probability. Decreases of air and dew point temperature ... ... for fog prediction. Tables of average decreases of temp. and dew point are given, depending on wind velocity and direction. Radiation fogs lift predominantly after sunrise at temperatures exceeding the temperature of fog formation by 1 degree. During

Card 1/2   UDC 551.575.1 (474)

ACC NR: AR6016956

the colder half-year, advective fogs predominate. For their prognosis, the criterion $\tau_a > t$ is used, where τ_a is the dew point of the arriving air flow and t - is the temp. at the point of the forecast. However, the map values of these quantities must be corrected by $\Delta t, \Delta \tau$ conditioned by inflow air transformation. Table of such corrections is given for each term of the maps. [Translation of abstract].

SUB CODE: 04

L 1\217-67 EWT(1) GW

ACC NR: AR6016950   SOURCE CODE: UR/0169/65/000/012/B036/B036

AUTHOR: Buz, A. I.

TITLE: On the dependence between temperature profiles and wind velocity in the boundary layer of the atmosphere and determination of the thermodynamic stability of this layer from balloon sounding data

SOURCE: Ref. zh. Geofizika, Abs. 12B233

REF SOURCE: TR. Vil'nyussk. gidrometeor. observ., vyp. 1, 1964, 140-146

TOPIC TAGS: atmospheric stability, atmospheric temperature profile, atmospheric turbulence, storm, forecasting, wind velocity, atmospheric turbulence, atmospheric boundary layer, weather

ABSTRACT: For a comparison of temperature profile steepness and modulus of wind velocity in the boundary layer, finite differences of the second derivatives on height, of the above meteorological elements, were utilized. Similarity of wind and temperature profiles is related to turbulent exchange along the height, in the boundary layer. The results gained from experimental data show that during the increase of the vertical temperature gradient with height, a decrease in the wind velocity gradient is observed. The sign of the second derivative of wind velocity on height is diagnostic for the presence or absence of thunderstorms (total justification 63%). Changes of wind velocity profile with time even better reflect the condition of thunderstorm activity (total justification 66-77%). Both in the first and in the second case, positive signs

Card 1/2   UDC 551.571.3

L 11217-67

ACC NR: AR6016950   0

lead to convective events. At stable stratification, a sharp convexity of the wind ve-
locity profile toward the side of higher velocities and an increase, during the day
hours, of the wind velocity maximum is observed. In an unstable air mass, a decrease
of the maximum wind velocity and an intensive decrease of the convexity of the wind
velocity profile takes place during the day hours; the profile often acquires a conca-
vity. With the development of turbulence, a shift of the wind velocity maximum toward
the higher levels takes place. The positive effect of turbulence in the development of
convection is emphasized. In closing, the author explains changes of wind profile in
time from the standpoint of the coefficient of turbulence changes. [Translation of ab-
stract].

SUB CODE: 04

Card 2/2   jb

ACC NR: AT6033295.   SOURCE CODE: UR/3230/64/000/001/0131/0139

AUTHOR: Buz, A. I.

ORG: none

TITLE: Fog formation in the vicinity of Vilnius during the cold season of the year

SOURCE: Vilnius. Gidrometeorologicheskaya observatoriya. Trudy, no. 1, 1964,
131-139

TOPIC TAGS: synoptic meteorology, weather forecasting, fog, formation, atmospheric
surface boundary layer, cloud cooling core, atmospheric humidity, air temperature,
atmospheric thermodynamics /Vilnius

ABSTRACT: This article continues a 1959 study of the meteorological conditions
favoring fog formation near Vilnius, in which it was found that 69% of all fogs
occur during the period October—March (averaging one every third day). Most
favorable air temperatures (-1, +1C), and winds (southerly) for fog formation were
determined. The present paper discusses the hygrothermal characteristics of the atmospheric
surface boundary layer and their effect on fog formation. An evaluation
was made of the applicability to local conditions of certain criteria in fog pre-
diction, which were recommended by the Central Institute of Forecasts. Since fog
formation is closely related to local changes in temperature and humidity (dew point
and the difference between the temperature and the dew point), it was possible to
isolate 10 processes resembling Gal'tsov processes. Changes in temperature and

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ACC NR: AT6033295

dew point were measured, accurate to 1°. It was found that in spite of the pre-
dominance of overcast weather during cold weather, about half of the processes
were radiational and were usually combined with advection or evaporation of pre-
cipitation. Formations of fogs and low clouds (below 100 m) are probable in all
types of processes except those during which the dew point spread increases in time.
If the dew point does not increase during the night, there is a 33% probability
that fog will form near Vilnius, and a 52% probability of fog or low ceilings.
Maximum probability of fog formation (over 40%) and low ceilings (over 60%) is
noted during the cold season with advection of heat, evaporation of precipita-
tion, and slight changes in air temperatures and the dew point in a state of near
saturation. Minimum probability is associated with advection of cold. It was
found that 20% of fogs formed during overcast weather and 54% of fogs formed with a
0—6 cloud cover were caused chiefly by radiational cooling. The principal con-
clusion drawn in the paper is that taking changes in air temperatures and dew
points into consideration significantly improves the forecasting of fogs and low
cloud ceilings. If the criterion $\tau_a - t > 0$ (where τ_a is the dew point of the
invading air mass and t is the temperature at the point for which the forecast is
compiled), the probability of fog or low ceiling is 70%, and if the criterion is
$\tau_a - t \geq 2°$, this probability is increased to 96%. Orig. art. has: 12 tables.
[WA-50]
SUB CODE: 04/ SUBM DATE: none/ ORIG REF: 003

Card   2/2

ACC NR: AT6033295   SOURCE CODE: UR/3230/64/000/001/0131/0139

AUTHOR: Buz, A. I.

ORG: none

TITLE: Fog formation in the vicinity of Vilnius during the cold season of the year

SOURCE: Vilnius. Gidrometeorologicheskaya observatoriya. Trudy, no. 1, 1964, 131-139

TOPIC TAGS: synoptic meteorology, weather forecasting, fog, formation, atmospheric surface boundary layer, cloud, cooling care, atmospheric humidity, air temperature, atmospheric thermodynamics / Vilnius

ABSTRACT: This article continues a 1959 study of the meteorological conditions favoring fog formation near Vilnius, in which it was found that 69% of all fogs occur during the period October—March (averaging one every third day). Most favorable air temperatures (-1, +1C), and winds (southerly) for fog formation were determined. The present paper discusses the hygrothermal characteristics of the atmospheric surface boundary layer and their effect on fog formation. An evaluation was made of the applicability to local conditions of certain criteria in fog pre-diction, which were recommended by the Central Institute of Forecasts. Since fog formation is closely related to local changes in temperature and humidity (dew point and the difference between the temperature and the dew point), it was possible to isolate 10 processes resembling Gal'tsov processes. Changes in temperature and

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ACC NR: AT6033295

dew point were measured, accurate to 1°. It was found that in spite of the predominance of overcast weather during cold weather, about half of the processes were radiational and were usually combined with advection or evaporation of precipitation. Formations of fogs and low clouds (below 100 m) are probable in all types of processes except those during which the dew point spread increases in time. If the dew point does not increase during the night, there is a 33% probability that fog will form near Vilnius, and a 52% probability of fog or low ceilings. Maximum probability of fog formation (over 40%) and low ceilings (over 60%) is noted during the cold season with advection of heat, evaporation of precipitation, and slight changes in air temperatures and the dew point in a state of near saturation. Minimum probability is associated with advection of cold. It was found that 20% of fogs formed during overcast weather and 54% of fogs formed with a 0—6 cloud cover were caused chiefly by radiational cooling. The principal conclusion drawn in the paper is that taking changes in air temperatures and dew points into consideration significantly improves the forecasting of fogs and low cloud ceilings. If the criterion $\tau_a - t > 0$ (where τ_a is the dew point of the invading air mass and t is the temperature at the point for which the forecast is compiled), the probability of fog or low ceiling is 70%, and if the criterion is $\tau_a - t \geq 2°$, this probability is increased to 96%. Orig. art. has: 12 tables. [WA-50]

SUB CODE: 04/ SUBM DATE: none/ ORIG REF: 003

Card   2/2

LEBEDEV, P.D., prof.; BUZ, M.A., inzh.

A method of calculating the conditions of nondefective drying of ceramic wall materials on the basis of the theory of probability. Strci. mat. 11 no.8:12-14 Ag '65.   (MIRA 18:9)

UJVARI, Iosif; BUZ, Viktor; GILIN, Pavel.

   Problems of the hydrothermal indexes. Studia Univ B-B S. Geol-
   Geog.8 no.2:107-123 '63)

BUZA, A.

"Designing Nomograms for Determination of Feed for Power in Sets of Rolls",
P. 115, (KOHASZATI LAPOK, Vol. 9, Nr. 3, March 1954, Budapest, Hungary)

SC: Monthly List of East European Accessions (EEAL), LC, Vol. 4, Nr. 3,
March 1955, Uncl.

BUZA, Antal, okleveles kohomernok

Theory of operation and application of "centralograph" plant
control instruments. Koh lap 96 no.10:471-475 O '63.

1. Dunai Vasmu.

BUZA, Antal, kohomernok, egyetemi tanarseged

Construction of nomograms for determining the power demand
of roll trains. Koh lap 9 no. 3: 115-122 Mr '54.

G-1

COUNTRY   : Poland
CATEGORY   : Organic Chemistry--Theoretical organic chemistry

ABS. JOUR. : RZKhim., No. 21 1959, No.   74787

AUTHOR   : Puza, D. and Polaczkowa, W.
INST.   : Not given
TITLE   : On Tautomerism in the Oximes of Isophorone

ORIG. PUB. : Roczniki Chem, 32, No 5, 1097-1106 (1958)

ABSTRACT   : The methylation of the syn- and anti-oximes of
              isophorone with $(CH_3)_2SO_4$ in alkaline medium
              gives petroleum ether soluble O-methyl deriva-
              tives (α-I and β-I) (yield 15.5 and 24.5%,
              bp 84-85°/14 mm and 89-90°/14 mm, $n^{20}D$ 1.4914 and
              1.4921) and insoluble in petroleum ether M-methyl
              derivatives (α-II and β-II), oils [sic]; α-II
              decomposes on distillation under high vacuum; the
              hydrochlorides (yield 57.1 and 83%, respectively)
              are hygroscopic and melt at 116-117 (from anhydrous

CARD: 1/4

COUNTRY	: Poland
CATEGORY	:

ABS. JOUR. : RZKhim., No. 21 1959, No.   74787

AUTHOR   :
INST.   :
TITLE   :

ORIG. PUB. :

ABSTRACT   : derivative, mp 86-88°. For comparison purposes
             III was also prepared by the methylation of
             benzalisophorylamine with $(CH_3)_2 SO_4$ followed by
             hydrolysis of the N-methylbenzalisophorylammonium
             sulfomethylate which is formed; yield of III,
             70%; bp 64-65°/7 mm, 69°/10 mm, 82°/20 mm, 84°/
             23 mm; $n^{20}D$ 1.4661. The authors are of the
             opinion that the data presented are the first
             proof of tautomerism in saturated ketoximes with
             conjugated C=C and C=N bonds according to the

CARD: 3/4

COUNTRY   : Poland   G-1
CATEGORY   :

ABS. JOUR.   : RZKhim., No. 21   1959,   No.   74737

AUTHOR   :
INST.   :
TITLE   :

ORIG. PUB.   :

ABSTRACT   : scheme:

$$>C=NOH \rightleftharpoons >C=NH \rightarrow O.$$

R. Topschteyn

CARD: 4/4

97

WOLINSKI, Jerzy; BUZA, Daniela; CZERWINSKA-FEJGIN, Eugenia; ZAMLYNSKI,
     Waclaw ——————————————

A new method of determining amines and phenols. Chem anal 4 no.5/6:
989-993 '59.   (EEAI 9:9)

1. Katedra Chemii Organicznej Politechniki, Warszawa
        (Amines)   (Phenols)

BUZA KISS, Lajos

Mutual effects between railroad cars and tracks. Jarmu mezo gep 9 no.1:32-37 Ja '62.

1. Foosztalya mernok-foeloadoja.

BUZA, L.

Hungary/Diseases of Farm Animals. Diseases Caused by   R-1
              Bacteria and Fungi.

Abs Jour : ʼef Zhur-Biol., No 18, 1958, 83553

Author   : Buza, Laszlo
Institute : No institute was given
Title   : Examining Several Hen Flocks for Brucellosis by
             Using the Laminated Agglutination Reaction Per-
             formed in the Eastern Part of Hungary.

Orig Pub : Magyar yllatorov. lapja, 1957, 12, No 6, 179-181

Abstract : The performed examinations involved 13,650 hens.
             On farms, where large horned cattle brucellosis and
             swine brucellosis were in evidence, 28 out of
             1,692 hens gave positive reactions, and on farms free
             from brucellosis not even one out of 4,491 examined
             hens gave a positive reaction. The problem of whether
             positive reacting hens are dangerous for large horned
             cattle and swine needs further study.

Card 1/1

BUZA, T.

Buza, T.
"Cleaning of brake drum to prevent grabbing." p. 10.
(Auto Motor. Vol. 6, no. 12, June 1953, Budapest.)

SO: Monthly List of East European Accessions, Vol. 2, No. 9, Library of Congress, September
1953, Uncl.

L 62677-6?
ACCESSION NR: AT5021847

AUTHOR: Erdey, Laszlo (Erdei. L.)(Doctor, Professor;Budapest . . . .
. . . . B. Budapest . Polon . Lab. . . . .

TITLE: Derivatographic and electron-microscopic examination . . . .
precipitates. Part 2

SOURCE: Academia scientiarum hungaricae. Acta chimica, v. 41, no. 1-2, 1964.
109-122

TOPIC TAGS: chemical precipitation, barium compound, sulfate, electron microscopy

ABSTRACT: Barium sulfate precipitates obtained in various analytical precipitations
were examined by derivatography and electron miscoscopy. Pure barium sulfate was
obtained only from very dilute solutions even after all volatile impurities were
eliminated by ignition. Eighteen electron micrographs an. . . . .
curves were presented and discussed.   Orig. art. has: 20 figures . . . .

ASSOCIATION: Institut fur allgemeine Chemie der Technischen Universitat.
Budapest Institute for General Chemistry, Technical University

Card 1/2

L 63677-65
ACCESSION NR: AT5021747

SUBMITTED: ENCL: 00   STB CODE

NR REF SOV: x .   OTHER: 020   JPRS

Card 2/2

BUZAGH, Aladar   DECEASED '62   1962/6

Physical Chemist

obituary Magy tud 69 No.3 p.173 1962

records Center

PAULIK, Ferenc (Budapest, XI., Gellert ter 4); BUZAGH, Eva (Mrs);
(Budapest, XI., Gellert ter 4); POLOS, Laszlo(Budapest, XI.,
Gellert ter 4); ERDEY, Laszlo dr., prof. (Budapest, XI., Gellert
ter 4).

Der-vatographic analysis of barium sulfate precipitates.
Pt.1. Acta chimica Hung 38 no.4:311-323 '63.

1. Institut fur Allgemeine Chemie der Technischen Universitat,
Budapest.
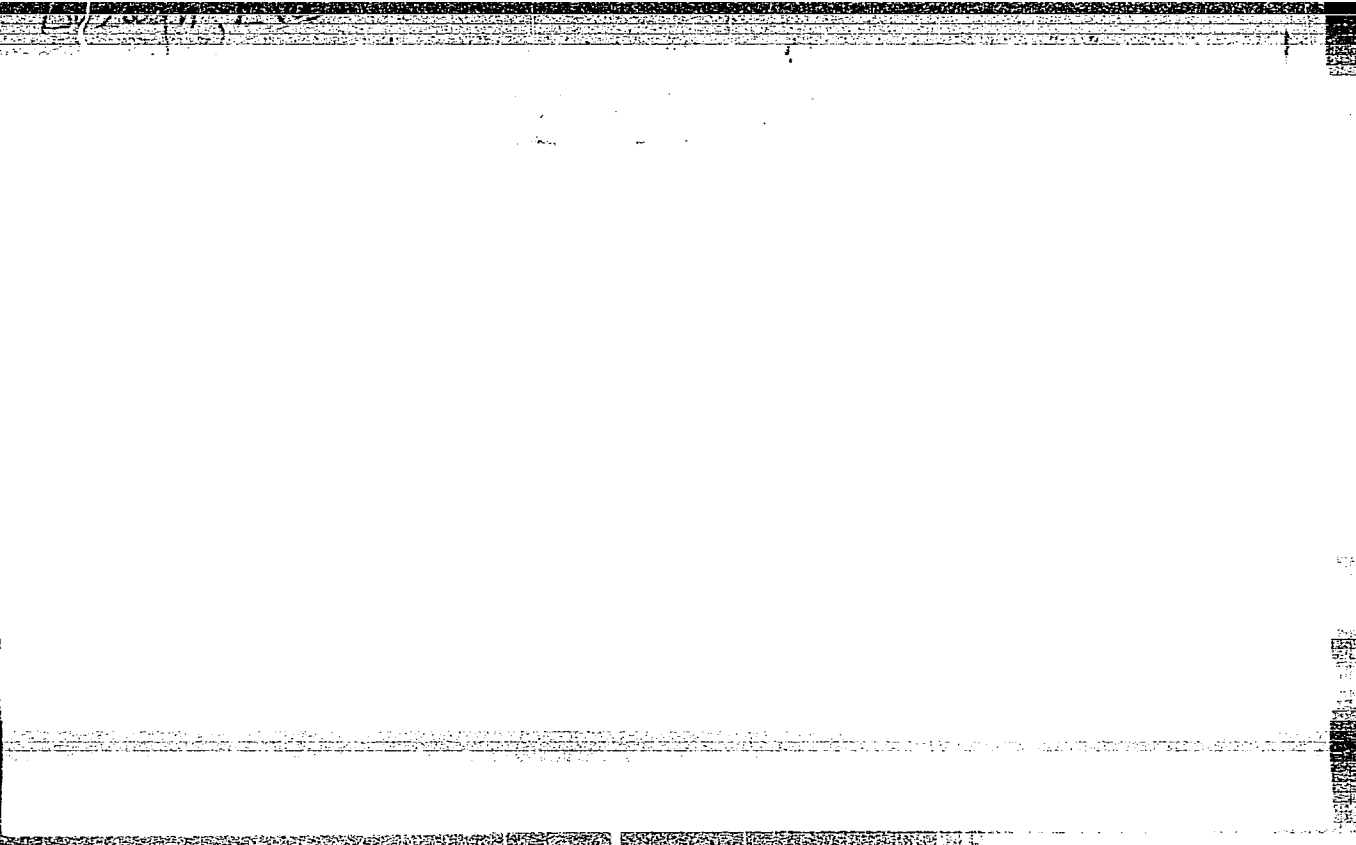
BUZAGHNE GERE, Eva

Separation of precipitations in homogeneous medium for analytical
and preparative purposes. Magy kem lap 16 no.9 Supplement Analitikai
Kozlemenyek 7 no.3:429-433 S '61.

1. Budapesti Muszaki Egyetem Altalanos Kemiai Tanszek.

TUROVA, A.D., professor; BUZALADZE, G.V.

Kidney tea (Orthosiphon Stomineus Benth). Sov.med. 17 no.12:
24 D '53.   (MLRA 6:12)

1. Iz Vsesoyuzhnogo nauchno-issledovatel'skogo instituta lekarstven-
nykh i aromaticheskikh rasteniy Ministerstva zdravookhraneniya SSSR.
                    (Kidneys--Diseases) (Botany, Medical)

BUZALKOV, R.; DAJA, I.

Effect of chlopromazine on lethargic hypothermia produced by
confinement in rarefield air. p. 73. Srpska akademija nauka.
Odeljenje prirodno-matematickih nauka. GLAS. Beograd.

No. 216, 1955

SOURCE: East European Accessions List, (E'AL), Library of
         Congress, Vol. 4, No. 12, December 1955

BUZALKOV, R.; STEFANOVIC, M.

Glucemia and inorganic phosphorus in rats deprived of thyroid
in hypothermia. p. 89. Srpska akademija nauka. Odeljenje
prirodno-matematickih nauka. GLAS. Beograd.

No. 216, 1955

SOURCE: East European Accessions List, (EEAL), Library of
         Congress, Vol. 4, No. 12, December 1955

BUZALKOV, Risto

Thermogenetic characteristics of the suprarenalectomyzed rats
after a prolonged stay in the zone of hyperthermia. Arh biol
nauka 12 no.3/4:123-128 '60.

1. Fizioloski institut Prirodno-matematickog fakulteta u Skopju.

KIRSANOV, Yu.V. (L'vov, USSR); BUZALO, F.F. (L'vov, USSR); KOBERNICHENKO, N.I. (L'vov, USSR)

"What every hospital attendant should know." A.G.Kapralov. Reviewed by IU.V.Kirsanov, F.F.Buzalo, N.I.Kobernichenko. Med.sestra no.5: 28-30 My '55.   (MLRA 8:6)
            (KAPRALOV, A.G.)
            (NURSES AND NURSING)