BRYUKHOVETSKIY, A.M.

BRYUKHOVETSKIY, A.M., fel'dsher.

My remarks on the plan of the Shigali Feldsher-Midwife Station. Fel'd.i akush.
no.10:52 O '53.
(MLRA 6:10)

1. Moiseyevichskiy fel'dshersko-akusherskiy punkt Grodnenskoy oblasti.
(Medicine, Rural)

ACC NR: AP6022083   SOURCE CODE: UR/0141/66/009/003/0576/0587

AUTHOR: Bryukhovetskiy, A. S.

ORG: Institute of Radiophysics and Electronics, AN UkrSSR (Institut radiofiziki i elektroniki AN UkrSSR)

TITLE: Theory of ultrasonic light diffraction

TOPIC TAGS: light diffraction, ultrasonics

ABSTRACT: The Fraunhofer light diffraction by ultrasonic waves is theoretically analyzed by a Sobolev method (Tr. seysm. inst., AN SSSR, no. 42, 1, 1934) which permits, in the first approximation, obtaining a solution for a dispersed field. The formulas for diffraction-line intepsity are developed in terms of quadratures that depend on two parameters. From these formulas, the results of the

Card 1/2   UDC: 535.4

ACC NR: AP6022083

"simplified" Raman and Nath theory (Proc. Indian Acad. Sc., A3, 75, 1936) for normal light incidence and the Debye and Brillouin results for light diffraction (in the first Born approximation) can be inferred. Experimental study of light diffraction by two parallel ultrasonic beams, 1/2-wide each, whose phases differed by π (K. L. Zankel et al., J. Acoust. Soc. Am., 31, 44, 1959) revealed that the diffraction was noticeably weakened but did not disappear. The Raman and Nath theory does not explain this phenomenon while the formulas developed in the present article do. It is proven that the line intensities, in the Raman and Nath theory, correspond not to the normal incidence but rather to Bragg angles. "In conclusion, the author wishes to mention the help of the late V. L. German, and wishes to thank S. M. Rytov for his comments, and P. V. Bliokh for his interest in the work." Orig. art. has: 1 figure and 57 formulas.

SUB CODE: 20 / SUBM DATE: 04Mar65 / ORIG REF: 005 / OTH REF: 012

Card 2/2

BRYUKHOVETSKIY, G. P.

KARDASH, I.B.; BRYUKHOVETSKIY, G.P.

For high quality beets. Sakh.prom. 31 no.8:25-27 Ag '57.

(MIRA 10:8)

1.Kurskiy sakhsveklotrest.
(Sugar beets)

BRYUKHOVETSKIY, V.D., inzh.; GORMAN, I.N., inzh.; DZYSYUK, A.A., inzh.;
        DRUSHLYAK, V.M., inzh.

    Removal of iron from industrial condensate by means of filtration
    through a cellulose layer. Elek. sta. 32 no.12:61 D '61.
                                                        (MIRA 15:1)
                    (Feed-water purification)

Q

USSR/Farm Animals. Silkworm.

Abs Jour: Ref Zhur-Biol., No 17, 1958, 78869.

Author : Brusenskaya, L.; Bryukhovich, A.; Ponomareva, P.
Inst   : Stavropol Agricultural Institute.
Title   : Influence of Feeding Schedule on Productivity of Bombyx
          B_1 X B_2.

Orig Pub: Sb. nauchno-issled. rabot stud. Stavropol'sk. s.-kh.
          in-ta, 1956, vyp. 4, 65-67.

Abstract: No abstract.

Card   : 1/1

BRYUKHOVICH; G.V.

CTRSPL   No. 45

Skripchinski, V.V., Bryukhovich, G.V. and Maksimenko, L.D., The dynamics of the dying-off of the vegetative organs of perennial and annual plants during the ripening of the seeds. 1037-40

Akademiya Nauk S.S.S.R., Doklady   Vol. 79 No. 6, 1951

ALIMOV, Ye.V.; BRYUKHOVICHENKO, P.I.; TSYGANKO, L.Z.

New technological process of manufacturing large-size castings
for power machinery by assembling molds from core blocks in a
special jacket. Lit. proizv. 5:3-4 My '64.   (MIRA 18:5)

BRyuKKER, L. E.

1(3); 14(10) P.2.   PHASE I BOOK EXPLOITATION   SOV/2606

Voprosy rascheta elementov aviatsionnykh konstruktsiy; raschet
    trekhsloynykh paneley i obolochek. Sbornik statey, No. 1
    (Problems in Calculating Aircraft Structural Elements; Cal-
    culating of Sandwich Panels and Shells. Collection of
    Articles, Nr. 1) Moscow, Oborongiz, 1959. 169 p. Errata
    slip inserted. 2,600 copies printed.

Ed.: A.Ya. Aleksandrov, Doctor of Technical Sciences, Professor;
    Ed. of Publishing House: T.A. Valedinskaya; Tech. Ed.:
    V.P. Rozhin.

PURPOSE: This collection of articles is intended for engineers
    and scientific workers concerned with stress analysis of
    aircraft structural elements.

COVERAGE: The articles in this collection discuss problems in
    the structural analysis of sandwich panels with light cores,
    such as problems of the stability of curved panels, design
    of cores with consideration of transversal tension (tear-off)
    and the results of panel-strength tests. In addition, pro-
    blems in the calculation of torsion and bending of a

Problems in Calculating Aircraft (Cont.)   SOV/2606

    cylindrical shell reinforced by bulkheads are covered and
    the calculation of unsteady temperatures in an I-beam
    element is considered.

TABLE OF CONTENTS:

Card 2/7

Problems in Calculating Aircraft (Cont.)   SOV/2606

with consideration of shear and transversal stresses (tear-off) which arise along the surface of the junction between the outer layers and the core. Calculation formulas were obtained for plates operating under longitudinal compression and longitudinal and transverse bending.

3. Kurshin, L.M. Large Deflections of a Cylindrical Sandwich Shell   39
   A system of nonlinear equations for ultimate buckling of cylindrical sandwich shells is obtained by the variational method. The problem of longitudinal compression of a cylindrical sandwich panel simply supported along its four edges is solved according to the nonlinear theory. The results permit the conclusion that load reduction following loss of stability is smaller for sandwich shells with a light core than for single-layer shells of the same thickness.

4. Kurshin, L.M. Stability Under Compression of a Simply Supported Cylindrical Sandwich Panel and of a Cylinder With a Corrugated Core   51

Card 3/7

Problems in Calculating Aircraft (Cont.)   SOV/2606

Stability equations are obtained for a cylindrical
sandwich shell consisting of two thin outer layers and
a corrugated middle layer. The problems of stability
of a curved sandwich panel simply supported along
its four edges and of a cylinder under compression are
solved.

5. Kurshin, L.M. Stability Under Compression of a Curved
    Cylindrical Sandwich Panel the Transverse Edges of Which
    Are Fastened While the Longitudinal Edges Are Simply
    Supported   69
        This paper analyzes the stability of a cylindrical
        sandwich panel with a light isotropic core under
        uniform longitudinal compression for a case where
        the transverse edges are fastened and the longitudinal
        edges are simply supported.

6. Kurshin, L.M. On the Calculation of Bending Stiffness of
    the Outer Layer of a Curved Sandwich Panel Under Longi-
    tudinal Compression   80

Card 4/7

Problems in Calculating Aircraft (Cont.)   SOV/2606

A formula is obtained for calculating curved sand-
wich panels under longitudinal compression with
consideration of the natural bending stiffness of
the outer layers. The domain is established in which
the assemption of this stiffness being equal to zero
is applicable.

7. Galkin, S.I. Torsion of an Open Cylindrical Shell Rein-
    forced by Bulkheads   85
        Torsion of an open cylindrical shell reinforced by
        bulkheads is considered in this paper. The solution
        is obtained without introduction of additional hypotheses
        aside from the general assumptions associated with
        representing the operation of an open shell as moment-
        less. On the basis of the solution the limits of
        applicability are shown of the hypothesis of warping
        which has been widely used in problems of calculating
        open shells under torsion.

8. Galkin, S.I. Torsion and Bending of a Circular Cylindrical
    Shell Reinforced by Elastic Bulkheads   102

Card 5/7

Problems in Calculating Aircraft (Cont.)   SOV/2606

This paper investigated the state of stress of a circular
cylindrical shell which is reinforced by elastic bulk-
heads and loaded along the edges by an arbitrary system
of axial and tangential forces. Calculation formulas
are obtained which permit calculating all elastic-defor-
mation components for various boundary conditions at
the edges of the shell. The effect of self-balancing
forces on the state of stress of the shell as a function
of the stiffness of the bulkheads was investigated. It
is shown that the self-balancing stresses do not decay
very rapidly; the zone of their propagation into the
depth of the shell is practically equal to the length of
the contour of the transverse cross section of the shell.
A calculation example is given for a shell under torsion
allowing for elasticity of the bulkheads.

9. Nazarov, N.I., M.S. Povarnitsyn, and Ye. V. Yurlova.
Calculation of Unsteady Temperatures in an I-beam Element 142
This paper presents two methods of calculating the
temperature fields in an I-beam element (representing,
in this particular case, a typical part of a multilongeron

Card 6/7

Problems in Calculating Aircraft (Cont.)   SOV/2606

wing): 1) the method of direct integration of the
heat-conduction equations, and 2) the method of
elementary equilibrium. Cases of symmetrical and
unsymmetrical heating of such elements through the
outer flange surfaces are considered as well as the
case of different thicknesses of flanges. Solution
of the problem is given under the assumption that
physical characteristics of the material and the
heat-transfer coefficients do not depend on temperature
variation.

AVAILABLE: Library of Congress

                                                            IS/mg
Card 7/7   11-24-59

BRYUKKER, L. E.

PHASE I BOOK EXPLOITATION   SOV/4441

Voprosy rascheta elementov aviatsionnykh konstruktsiy; rachet tekhnologiyeykh
panelal i obolochek, sbornik statey, no. 2 (Problems in Calculating Aircraft
Construction Elements; Calculation of Sandwich Panels and Shells, Collection
of Articles, No. 2) Moscow, Oborongiz, 1959. 155 p. Errata slip inserted.
1,900 copies printed.

Ed.: A. Ya. Aleksandrov, Doctor of Technical Sciences, Professor, and L.M.
Kurshin, Candidate of Technical Sciences; Managing Ed.: A.S. Zaymovskaya,
Engineer; Ed. of Publishing House: P.S. Korotkov, Tech. Ed.: V.I. Orешkina.

PURPOSE: This book is intended for engineers, designers, scientific workers
and students.

COVERAGE: The book is a collection of 10 articles dealing with theoretical and
experimental investigation of the strength of sandwich construction with light-
weight fillers of the formed-plastic type and rigid fillers of the corrugated
and honeycomb type. The articles discuss the general rigidity of sandwich plates
and cylindrical shells during longitudinal compression; simultaneous bending,
compression and shear of plates; local rigidity; problems in the determination
of reduced elastic parameters of honeycomb fillers; and the selection of optimum
parameters for plates. No personalities are mentioned. There are no references.

Kurshin, L.M. Rigidity of Cylindrical Sandwich Shells Beyond the Elastic
Limit   43

Bryukker, L.E. Bending of Sandwich Bars by Concentrated and Distributed Loads. 52

Bryukker, L.E. and T.P. Frolkova. Calculation of Sandwich Plates Subjected
to Simultaneous Action of Transverse Load, Compression and Shear   81

Bryukker, L.E. Longitudinal and Transverse Bending of a Plate with Rigid
Filler   94

Bryukker, L.E. Approximate Solutions of Some Problems in the Longitudinal and
Transverse Bending of Sandwich Plates with Rigid Orthotropic Fillers   98

Aleksandrov, A.Ya., and L.M. Kurshin. Compression of an Underpropped Plate 114

Aleksandrov, A.Ya., L.M. Kurshin and A.P. Prusakov. On the Selection of Para-
meters for Sandwich Plates with Lightweight Fillers Subjected to Compression 125

Aleksandrov, A.Ya., and L.E. Bryukker. Results of Tests of Rectangular
Sandwich Plates for Longitudinal Compression   131

AVAILABLE: Library of Congress

Card 3/3

AC/rm/grp
10-27-60

/

ALEKSANDROV, A.Ya.; BRYUKKER, L.E.

Strength test of sandwich panels with a foamed plastic
filler. Vop.rasch.elem.aviats.konstr. no.1:3-13 '59.
(MIRA 13:6)

(Elastic plates and shells--Testing)

S/260/62/000/004/004/005
I006/1206

AUTHORS: Aleksandrov, A. Ya and Bryukker, L. E.

TITLE: Strength testing of triple-layer panels with penoplast fillers

PERIODICAL: Referativnyy zhurnal, vozdushnyy transport. Svodnyy tom. no. 4, 1962, 9, abstract
             no. 4 A46, In collection (Vopr elementov aviats. konstruktsiy), M., Oborongir, no. 1,
             1959, 3-13

TEXT: none given

[Abstracter's note: Complete translation of title only.]

Card 1/1

SOV/179-59-3-29/45

AUTHORS: Bryukker, L. E. and Kurshin, L. M. (Novosibirsk)

TITLE: The Static Derivation of the Equations of Bending of a
Three-Layered Plate with Rigid Filling (O vyvode
staticheskim putem uravneniy izgiba trekhsloynykh
plastin s zhestkim zapolnitelem)

PERIODICAL: Izvestiya Akademii nauk SSSR, Otdeleniye tekhnicheskikh
nauk, Mekhanika i mashinostroyeniye, 1959, Nr 3,
pp 167-168 (USSR)

ABSTRACT: The outer layers of the plate are assumed to be isotropic,
and the middle layer orthotropic. Consideration of the
bending moments, shearing forces and shear stresses in
the three layers leads to the system of equations
governing the bending of the plate previously derived by
Grigolyuk (Ref 1).
There are 1 figure and 1 Soviet reference .

SUBMITTED: February 13, 1959

Card 1/1

BRYUKKER, L.E.

PHASE I BOOK EXPLOITATION   SOV/4733

Aleksandrov, Avraam Yakovlevich, Leonid Eduardovich Bryukker, Lev Moiseyevich
    Kurshin, and Aleksandr Pavlovich Prusakov

Raschet trekhsloynykh paneley (Calculations for Sandwich Panels). Moscow,
    Oborongiz, 1960. 270 p. Errata slip inserted. 1,600 copies printed.

General Eds.: A. Ya. Aleksandrov, Doctor of Technical Sciences, Professor,
    and L.M. Kurshin, Candidate of Technical Sciences; Ed.: A.A. Goryainov,
    Candidate of Technical Sciences; Managing Ed.: A.S. Zaymovskaya, Engineer;
    Ed. of Publishing House: P.B. Morozova; Tech. Ed.: N.A. Pukhlikova.

PURPOSE: This book is intended for designers, scientific personnel, and students
    in related fields.

COVERAGE: The book contains formulas and diagrams for strength calculation of flat
    and curved sandwich panels with various cores (homogeneous foam-plastic type,
    ribbed, etc.) under various support conditions, and subjected to various combin-
    ations of loads. Data on selecting optimum parameters of panels and on strength
    testing of panels are included. The introduction and Chapters 11, 12, 13, 15,
    27, and 28 were written by A. Ya. Aleksandrov; Chs. 6, 16, 17, 18, 19, 21, 23,
    24, 25, and 26 by L.E. Bryukker; Chs. 2, 3, 5, 8, 9, 10, 14, 20, part of Ch. 4

Card 1/6

Calculations for Sandwich Panels   SOV/4733

and part of Ch. 1 (Sections 1.5, 1.7, 1.8.2, 1.10, 1.11, and 1.12) by L.M. Kurshin; and Chs. 7, 22, part of Ch. 4, and part of Ch. 1 (Sects. 1.1, 1.2, 1.3, 1.4, 1.6, 1.8.1, 1.9, 1.13) by A.P. Prusakov. Materials supplied by N.I. Nazarov are used in Sect. 16.2 of Ch. 16. The authors thank E.P. Trofimova for her assistance. There are 136 references: 32 Soviet, 101 English, and 3 German.

TABLE OF CONTENTS:

Card 2/6

S/879/62/000/000/018/088
D234/D308

AUTHOR: Bryukker, L. E. (Novosibirsk)

TITLE: Approximate universal formulas for the design of three-layer plates with light and rigid filler

SOURCE: Teoriya plastin i obolochek; trudy II Vsesoyuznoy konfe-rentsii, L'vov, 15-21 sentyabrya 1961 g. Kiev, Izd-vo AN USSR, 1962, 141-146

TEXT: The author's purpose is to obtain the simplest design formu-las for bending of plates with a rigid filler. The order of the equations can be made smaller by assuming the flexural rigidity of the external layers to be equal to 0, and by neglecting either the first terms of the second and third equation, or the last term of the first equation. One can also assume that displacements along the thickness vary according to the straight line law. As an ex-ample the author gives the solutions for the cylindrical bending of a three-layer plate freely supported along two edges, obtained with different simplifications, and the results are compared. Conclusion:

Card 1/2

Approximate universal formulas ...   S/879/62/000/000/018/088
D234/D308

The simplest and most acceptable formula is that obtained assuming
the straight line law. There are 3 figures.

Card 2/2

L 9090-65   EWT(m)   SSD/ASD(f)/AFETR/AFWL

ACCESSION NR: AT4039428

S/2879/64/000/000/0270/0275

AUTHOR: Bryukker, L. E. (Novosibirsk)

TITLE: The bending of sandwich plates with consideration of thermal stresses

SOURCE: Vsesoyuznaya konferentsiya po teorii obolochek i plastin. 4th, Yerevan, 1962. Teoriya obolochek i plastin (Theory of shells and plates); trudy* konferentsii, 1964, 270-275

TOPIC TAGS: sandwich plate, bending stress, thermal stress, plate bending

ABSTRACT: Linear equations for combined compression and bending of asymmetrical sandwich plates with a rigid core under nonuniform heating, are derived by a static method. All three layers are of different isotropic materials. The elasticity moduli of the thin face layers are considered constant, while the elasticity moduli for the core vary with thickness. It is further assumed that the Poisson coefficients of all layers are constant and equal. The hypothesis of a broken line is used for the distribution of the displacements over the thickness of the plate. The appropriate selection of the "middle" surface leads to simpler equations than when the "middle" surface is located at an equal distance from the external layers, as in the work of Kh. M. Mushtari. Using the

Card 1/2

L 9090-65
ACCESSION NR: AT4039428   O

equilibrium equations and relationships for displacements and stresses, five equations are
derived describing the behavior of a sandwich plate under the given conditions. As an
example, the values of deflections are given for $t = f(z)$ and critical force values for $t = 0$
for freely suspended sandwich plates under conditions of cylindrical bending. The formulas
given in the article can be simplified by the techniques given in Bryukker's earlier work
(L.E. Bryukker. Trudy* II vsesoyuznoy konferentsii po teorii plastin i obolochek. 1961).
Orig. art. has: 1 figure and 6 formulas.

ASSOCIATION: none

SUBMITTED: 00   ENCL: 00   SUB CODE: AS, ME

NO REF SOV: 003   OTHER: 000

Card 2/2

L 47015-66   EWT(d)/EWT(m)/EWP(w)/EWP(k)   IJP(c)   EM/RM

ACC NR: AR6027164   SOURCE CODE: UR/0264/66/000/005/A008/A008

AUTHOR: Bryukker, L. E.   30
                                                           B

TITLE: Bend of three-layered plates with different outer layers at increased
temperatures   24

SOURCE: Ref. zh. Vozdushnyy transport, Abs. 5A46

REF SOURCE: Sb. Raschety elementov aviats. konstruktsiy. Vyp. 4, M.,
Mashinostroyeniye, 1965, 71-85

TOPIC TAGS: bending, bending stress, elastic modulus, filler

ABSTRACT: Design equations have been obtained for determining the bends and
stresses in three-layered plates under nonuniform heating. Equations were
derived by the static method for a bend of three-layered plates under the effect
of a lateral load and longitudinal forces with uneven heating. Plates with outer
layers of various rigidity and with rigid isotropic fillers were examined. Design

Card 1/2   UDC: 629.13:539.4

L 47015-66

ACC NR: AR6027164

equations were obtained for determining the bends and stresses of plates with different variants of edge fastening at temperature changes over the thickness plane only. It was considered that the moduli of elasticity in the thickness plane of the filler are constant. Orig. art. has: 3 figures. Bibliography of 8 titles. [Translation of abstract]   [NT]

SUB CODE: 11/

Card 2/2 vmb

L 31570-66   EWT(d)/EWT(m)/EWP(w)/EWP(k)   IJP(c)   BM/GD
ACC NR: AT6011751   SOURCE CODE: UR/0000/65/000/000/0074/0099

AUTHOR: Bryukker, L. E.

ORG: none

TITLE: Some variants for the simplification of equations for the bending of sandwich plates

SOURCE: Raschety elementov aviatsionnykh konstruktsiy, vyp. 3: Trekhsloynyye paneli i obolochki (Calculation of aircraft construction elements, no. 3: Sandwich panels and shells). Moscow, Izd-vo Mashinostroyeniye, 1965, 74-99

TOPIC TAGS: sandwich structure, bending strength, mathematic analysis

ABSTRACT: In the calculation of sandwich structures, some allowances must be made in determining the work of the filler, since the application of a rigid solution of the problem to a filler with three-dimensional problem equations is possible only in certain specific cases. Most of the approximate theories assume the absence of the convergence of the external layers and the uniform distribution of shearing stress across the filler. The present article uses a comparison of approximate solutions with rigid solutions to establish the limits for the applicability of these allowances for a number of problems. Of all the approximate theories, the most universal is the theory which makes it possible to calculate sandwich structures and plates with light as well as rigid fillers. This theory was described by E. I. Grigolyuk (Konechnyye progiby trekhsloynykh obolochek s zhestkim zapolnitelem. Izv. AN SSSR, OTN, 1958, No. 1), L. M. Kurshin (Ob ustoychivosti trekhsloynoy pologoy tsilindricheskoy obolochki

Card 1/2

L 31570-66

ACC NR: AT6011751

pri szhatii. Izv. AN SSSR, OTN, 1958, No. 8), and A. P. Prusakov. The theory proposes that during the bending of a plate, the shifts u, v across the plate vary in a broken line consisting of three segments of a straight line. Furthermore, it is assumed that there is no convergence of the external layers. The shearing stresses are considered constant across the filler. However, even in this case, the expressions for the deflection and stresses in the plate are cumbersome and inconvenient for engineering calculations. For sandwich structures with a light filler (E = O, G ≠ O) this theory is considerably simplified if it is assumed that the bending rigidity of the external layers is equal to zero. In this respect, the present article examines the possible conditions at which sandwich structures may be considered as sandwich structures with light filler. Various versions of the simplification of this theory in the case of a rigid filler are studied, and the limits of their applicability are established. Orig. art. has: 36 figures and 20 formulas.

SUB CODE: 13, 12/ SUBM DATE: 25Oct65/ ORIG REF: 005

Card 2/2 LC

L 47012-66   EWT(d)/EWT(m)/EWP(w)/EWP(k)   IJP(c)   EM/RM
ACC NR: AR6027166   SOURCE CODE: UR/0264/66/000/005/A008/A008

AUTHOR: Bryukker, L. E. ; Naumova, M. P.

18
B

TITLE: Symmetrical bend of round three-layered plates with light weight fillers

SOURCE: Ref. zh. Vozdushnyy transport, Abs. 5A48

REF SOURCE: Sb. Raschety elementov aviats. konstruktsiy. Vyp. 4, M., Mashinostroyeniye, 1965, 86-90

TOPIC TAGS: bending, plate, filler, longitudinal bend, lateral bend

ABSTRACT: Equations are derived for longitudinal and lateral bend of three-layer round plates under axisymmetrical deformation. The solution of problems of bending of round plates, in consideration of forces acting in the plane of plate, may be of interest for the calculation of three-layer plane-baffle plates of hermetic cabins and tank bottoms, working under internal or external pressures. With the assumption that the bending rigidity of outer layers is equal to zero,

Card 1/2
UDC: 539. 4:620. 1

L 47017-66

ACC NR: AR6027166

equations are obtained for bends and stresses at lateral bend of round three-layered plates. Orig. art. has: 1 figure. Bibliography of 2 titles. [Translation of abstract]   [NT]

SUB CODE: 11/

L 37127-66   EWP(k)/EWT(d)/EWT(m)/EWP(w)   LJP(c)   EM/GD/RM

ACC NR: AT6011752   SOURCE CODE: UR/0000/65/000/000/0100/0105

AUTHOR: Bryukker, L. E.

ORG: None

TITLE: Simplified formulas for the calculation of sandwich panels with fillers

SOURCE: Raschety elementov aviatsionnykh konstruktsiy, vyp. 3: Trekhsloynyye paneli i obolochki (Calculation of aircraft construction elements, no. 3: Sandwich panels and shells). Moscow, Izd-vo Mashinostroyeniye, 1965, 100-105

TOPIC TAGS: shell structure, sandwich structure, shell buckling, shell design

ABSTRACT: The author attempts to reduce the problem of the calculation of sandwich panels with rigid filler to that of the calculation of such panels with light filler. This is accomplished through the adoption of several simplifying assumptions. The problem is studied on the basis of an analysis of equations for rigid-filled sandwich panels obtained on the assumption that the displacements throughout the thickness of the panel change according to a linear law. A comparison of the calculation formulas with equations applicable to panels with light filler makes it possible to establish an agreement between the factors of the equations and to develop recommendations for the extension of simple formulas,
Card 1/2   UDC 629.13.011.1:62-41:539.4

L 37127-66

ACC NR: AT6011752   2.

originally derived for work with light-filled plates, to panels with rigid filler. Examples are given illustrating the calculation of panels under conditions of cylindrical bending, as well as the calculation of round or circular plates. Orig. art. has: 10 formulas.

SUB CODE: 13 / SUBM DATE: 25Oct65 / ORIG REF: 003

Card 2/2 af

BRYUKMAN, A.; MROVETS, S.; VERBER, T.

Mechanism of reactive diffusion in the system copper - sulfur.
Fiz.met.i metalloved. 15 no.3:362-370 Mr '63.   (MIRA 16:4)

1. Gorno-metallurgicheskaya Akademiya, Pol'skaya Narodnaya
Respublika, Krakov.
               (Copper sulfide)   (Diffusion)

BRYUKMAN, A.; MROVETS, S.; VERBER, T.

Formation of a two-layer sulfide scale on copper. Fiz. met. i
metalloved. 18 no.3:467-468 S '64.   (MIRA 17:11)

1. Gornometallurgicheskaya akademiya Pol'skoy Narodnoy Respubliki,
Krakov.

BRYUKMAN, A. [Brückman, A.]; MROVETS, S. [Mrowec, S.]; VERBER, T. [Werber, T.]

Invrstigating the degree of sulfur participation in the
reaction diffusion of sulfide scale formation on nickel.
Fiz.-met. i metalloved. 20 no.5:702-707 N '65.

(MIRA 18:12)

1. Gornometallurgicheskaya akademiya, g. Krakov, Pol'skaya
Narodnaya Respublika.

BRYUKMAN, B.

Bernshteyn, R. and Bryukman, B. Vvedeniye v meteorologiya (Introduction to Meteorology) GONTI NKTP SSSR, 1938.

SO: U-3039, 11 Mar 1953

BRYUKNER, L.; ROSMAIT, I. (Ostrava, Chekhoslovakiya)

Study of the "bronchial tree" in pneumoconiosis in miners. Gig.
truda i prof. zab. no.2:32-37 '62.   (MIRA 15:2)

1. Ostravskiy oblastnoy institut zdravookhraneniya.

(BRONCHI—DISEASES)   (LUNGS—DUST DISEASES)
(MINERS—DISEASES AND HYGIENE)

1. BRYUKOV, G.S.

2. USSR (600)

4. Driling and Boring

7. Boring hole in connecting rod on the lathe, Stan. i instr. 24 no. 4, 1953.

9. Monthly List of Russian Accessions, Library of Congress, ___APRIL___ 1953, Uncl.

BRYUKOV, K. S.

Precision of geodetic control for large-scale surveys. Geod. i
kart. no.4:68-72 Ap '60.   (MIRA 13:8)
     (Triangulation)   (Traverses (Surveying))

BRYUKOV, Vladimir Stepanovich; EGIZ, V.I., inzh.-polkovnik, kand. tekhn.
    nauk, red.; TOLOSHCHOPOV. I.M., red. izd-va; KOCHOVALOVA, Ye.K.,
    tekhn. red.

    [Use of armor in war] Primenenie broni v voennom dele. Moskva,
Voen.izd-vo M-va oborony SSSR, 1961. 98 p.   (MIRA 14:11)
    (Armor-plate)   (Tanks (Military science))

BRYUKOVA, L.S.

Dynamics of the distribution of hyaluronidase in tumor-bearing organisms under the influence of antitumor sera. Biul. eksp. biol. i med. 50 no. 11:90-95 N '60.
(MIRA 13:12)

1. Iz kafedry patologicheskoy fiziologii (zav. - prof. V.A. Chepurin) Stavropol'skogo gosudarstvennogo meditsinskogo instituta (dir. - prof. V.G. Budylin).
(TUMORS)   (HYALURONIDASE)

BUROVOY, I.A.; BRYUKVIN, V.A.

Mathematical model of roasting a zinc concentrate in a fluidized
bed. Sbor. nauch. trud. Gintsvetmeta no.21:131-145 '64.
(MIRA 18:8)

BRYUKVIN, V.A.

Mathematical model of the roasting of a nickel matte in a fluidized bed. Sbor. nauch. trud. Gintsvetmeta no.21:179-185 '64.

(MIRA 18:8)

BUROVOY, I.A.; BRYUKVIN, V.A.; SLEPOV, V.I.; MOROZOVA, M.A.

Dynamic properties of a furnace for roasting zinc concentrates in a fluidized bed. Sbor. nauch. trud. Gintsvetmeta no.21; 207-218 '64.   (MIRA 18:8)

BRYUKVIN, V.A., inzh.; REGENTOV, T.P., inzh.

        Apparatus for electromagnetic treatment of water. Energetik
        11 no.11:14-15 N '63.   (MIRA 16:11)

BUROVOY, I.A.; ELIASHBERG, V.M.; D'YACHKO, A.G.; BRYUKVIN, V.A.

Mathematical models of apparatus with fluidized beds for thermo-
chemical processes. Khim.prom. no.11:756-762 N '61.
(MIRA 15:1)

(Fluidization)

BUROVOY, I.A.; ELIASHBERG, V.M.; D'YACHKO, A.G.; BRYUKVIN, V.A.

General method of mathematically describing the dynamic
properties of fluidized bed apparatuses for thermochemical
processes. Sbor. nauch. trud. Gintsvetmeta no.19:550-564
'62.   (MIRA 16:7)

(Fluidization—Equipment and supplies)
(Metallurgical furnaces—Mathematical models)

BRYUKVIN, V.A.; PETYGIN, V.I.; KABACHKOV, N.I.

Methods of studying the macrokinetics of oxidation of sulfide
materials with a continuous recording of the chemical reaction
rate. Elektrokhimiia 1 no.7:806-811 Jl '65.   (MIRA 18:10)

1. Gosudarstvennyy institut tsvetnykh metallov.

LEBEDEV, G.V.; CHUCHKIN, V.G.; SABININA, Ye.D.; BRYUKVIN, V.G.

Apparatus for continuous redording of water absorption by plants.
Fiziol. rast. 11 no.6:1110-1114 N-D '64.

(MIRA 18:2)

1. Timiriazev Institute of Plant Physiology, U.S.S.R. Academy of
Sciences, Moscow.

MIN'YAR-BELORUCHEV, R.K.; KOLIMEYEV, V.I.; OSTAPENKO, V.P.;
      DANILOVA, Z.S., red.; BRYUKVINA, L.I., red.-
      leksikograf; KOKINA, N.N., tekhn. red.

[Concise French-Russian and Russian-French military
dictionary] Kratkii frantsuzsko-russkii i russko-
frantsuzskii voennyi slovar'. Moskva, Voenizdat, 1964.
536 p.   (MIRA 17:2)

BRYUM, A.; SHAYKIS, A.

Some problems in building harbor warehouses. Mor. flot 16
no.10:5-8 O '56.   (MLRA 9:11)

(Warehouses) (Harbors)

BRYUM, A.; KLEYMAN, A., aspirant

Organizing the removal of imported packaged peace goods
from sea harbors by railroad transportation. Mor. flot 23
no.9:12-14 S '63.   (MIRA 16:11)

1. Glavnyy spetsialist Chernomorniiproyekta (for Bryum).

BRYUM, A.; STASYUKOV, V., inzh.

     Speed up the servicing of tankers. Mor. flot 25 no.10:10-12
     O '65.   (MIRA 18:11)

     1. Glavnyy spetsialist otdela portov Chernomorniiproyekta
     (for Bryum). 2. Otdel portov Chernomorniiproyekta (for Stasyukov).

BRYUM, Abram Isayevich, inzh.; VORONOV, Petr Andreyevich, dotsent, kand. tekhn.nauk [deceased]; GINSBARG, Ruvin Izrailevich, kand.tekhn.nauk; KUTEYNIKOV, Aleksandr Nikolayevich, inzh.; FEDOROV, Aleksandr Timofeyevich, prof. [deceased]; SHAPOVALOV, Petr Borisovich, inzh.; SHIKHIYEV, Fuad Maksimovich, dotsent, kand.tekhn.nauk; YAVLENSKIY, S.D., retsenzent; KRUGLENKO, N.K., retsenzent; MATLIN, G.M., kand. tekhn.nauk, red.; KSENOFONTOVA, Ye.F., red.izd-va; TIKHONOVA, Ye.A., tekhn.red.

[Sea ports and harbor facilities] Morskie porty i portovye sooruzheniia. Moskva, Izd-vo "Morskoi transport," 1959.   519 p.

(MIRA 12:12)

(Harbors)

BRYUM, B. I.   Doc Med Sci

Dissertation: "Bronchography"

28 June 49

Central Inst for the Advanced Training of Physicians

SO Vecheryaya Moskva
Sum 71

BRYUM, B. I.

Segmental serial bronchography. Khirurgiia, Moskva no.9:62-
67 Sept. 1950.   (CLML 20:1)

1. Of the Central Scientific-Research Institute of Roentgenology
and Radiology imeni V. M. Molotov(Director -- Honored Worker in
Science Prof. S. A. Reynberg).

БРУМ Б I,   [Б]

REYNBERG, S.A.; BRYUM, S.I.

Authors' results with clinical roentgenodiagnosis of
pulmonary cancer. Ter. arkh. 22 no.3:85-91 May-June 1951.

(CIML 20:11)

1. Honored Worker in Science Prof. Reynberg: Doctor
Medical Sciences Bryum. 2. Of the Central Scientific-
Research Institute of Roengenology and Radiology imeni
V.M. Molotov (Acting Director — Prof. V.V. Zodiyev)
and of the Department of Roentgenology (Head — Honored
Worker in Science Prof. S.A. Reynberg) of the Central
Institute for the Advanced Training of Physicians.

BRYUM, B I.

SHEKHTER, I.A., professor; BRYUM, B.I., doktor meditsinskikh nauk;
    LUSHNIKOV, Ye.S., kandidat meditsinskikh nauk

Data on the problem of errors in roentgenologic diagnosis of
pulmonary cancer. Vest. rent. i rad. no.4:26-31 Jl-Ag '54.
                                                (MIRA 7:10)
1. Iz Gosudarstvennogo instituta rentgenologii i radiologii
imeni V.M.Molotova (dir. I.G.Lagunova)
        (LUNGS, neoplasms,
            differ. diag., x-ray, errors)

BRYUM, B.I.

BRYUM, B.I., doktor meditsinskikh nauk

Experience with tomography in diagnosis of pulmonary cancer. Vest.
rent.i rad. no.1:28-31 Ja-F '55.

(MLRA 8:5)

1. Iz rentgenodiagnosticheskogo otdeleniya (zav. prof. I.A.Shekhter)
Gosudarstvennogo nauchno-issledovatel'skogo instituta rentgenologii
i radiologii imeni V.M.Molotova (dir. kandidat meditsinskikh nauk
I.G.Lagunova).
        (LUNGS, neoplasms,
          diag., tomography)

BRYUM, B.I., doktor med. nauk; MOSKACHEVA, K.A., kand. med. nauk

Importance of tomography in the distinctive recognition of various diseases of the intrathoracic lymph nodes in children. Trudy TSentr. nauch.-issl. inst. rentg. i rad. 10:41-46 '59. (MIRA 12:9)
(LYMPHATICS--DISEASES) (RADIOGRAPHY)

BRYUM, B.I.; SHCHERBATOV, I.I.; GINGOL'D, A.I.

Significance of tomography in the detection of noncontrast foreign bodies in the bronchi in children. Pediatriia 37 no.9:54-58 S '59.

(MIRA 13:2)

1. Iz rentgenodiagnosticheskogo otdela (zaveduyushchiy - prof. I.A. Shekhter) Nauchno-issledovatel'skogo rentgeno-radiologicheskogo instituta Ministerstva zdravookhraneniya RSFSR (direktor - dotsent I.G. Lagunova) i kafedry ukha, gorla i nosa pediatricheskogo fakul'teta II Moskovskogo meditsinskogo instituta imeni N.I. Pirogova (zaveduyushchiy I.I. Shcherbatov) na baze Detskoy klinicheskoy bol'nitsy imeni N.F. Filatova (glavnyy vrach M.N. Kalugina).
(BRONCHI for. bodies)

BRYUM, B.I.; BABUKHINA, N.A. (Moskva)

Use of transverse tomography in pulmonary tuberculosis. Klin.med. 37
no.12:64-70 D '59.

(MIRA 13:4)

1. Iz rentgenodiagnosticheskogo otdela (zaveduyushchiy - prof. I.A.
Shekhter) Gosudarstvennogo nauchno-issledovatel'skogo instituta
rentgenologii i radiologii (direktor - dotsent I.G. Lagunova).
(TUBERCULOSIS)

BRYUM, E.B.

Significance of simultaneous tomography in differential diagnosis of the shadow of the thymus gland and of pathological processes in the mediastinum. Vest. rent. i rad. 40 no.1;7-12 Ja-F '65.

(MIRA 18:6)

1. Rentgenovskoye otdeleniye (zav.- prof. K.A. Moskacheva) Instituta pediatrii AMN SSSR, Moskva.

BRYUN, E.B.; ZNAMENSKAYA, I.V.

Case of tuberculosis with multiple localizations in an infant.
Vest. rent. i rad. 37 no.1:66-67 Ja-F '62.   (MIRA 15:3)

1. Iz kliniki tuberkuleza rannego detskogo vozrasta (rukovoditel' -
prof. I.V. TSimbler) Instituta pediatrii AMN SSSR (dir. - deystvi-
tel'nyy chlen AMN SSSR prof. O.D. Sokolova-Ponomareva).
                    (TUBERCULOSIS)

BRYUM.R.M.

Four supporting syndromes in the diagnosis of foreign bodies in the respiratory tract of young children. Vop.okh.mat. i det. 7 no.12:80 D'62.   (MIRA 16:7)

1. Iz kafedry detskikh infektsionnych bolezney Donetskogo meditsinskogo instituta i oblastnoy klinicheskoy bol'nitsy imeni M.I.Kalinina.
     (CHILDREN—DISEASES)   (GYNECOLOGY)

BRYUM, R.M. [Brium, R.M.]

Indices of the agglutination reaction in the treatment of whooping cough with immune antiwhooping-cough gamma globulins. Ped., akush. i gin. 25 no.2:18-21'63.   (MIRA 16:9)
(WHOOPING COUGH) (GAMMA GLOBULIN—THERAPEUTIC USE)
(BLOOD—AGGLUTINATION)

BRYUM, R.M.

Vaccination for pertussis. Vop. okh. mat. i det. 6 no. 2:41-45 F '61.
(MIRA 14:2)

1. Iz kafedry detskikh infektsionnykh bolezney (ispolnyayushchiy
obyazannosti zaveduyushchego kafedroy - kandidat meditsinskikh
nauk B.Ya. Reznik) Stalinskogo meditsinskogo instituta imeni
A.M. Gor'kogo (dir. A.M. Ganichkin) i Bol'nitsy imeni Kalinina
(glavnyy vrach - dotsent B.A. Shaparenko).
(WHOOPING COUGH)

BRYUM, R.M.

Severe and complicated forms of whooping cough. Ped., akush. i
gin. 22 no.4:13-15 '60.   (MIRA 14:5)

1. Kafedra detskikh infektsionnykh bolezney (zaveduyushchiy -
dotsent O.I.Roze) Stalinskogo meditsinskogo instituta imeni Gor'kogo
(direktor - dotsent A.M.Ganichkin) na baze Stalinskoy oblastnoy
klinicheskoy bol'nitsy im. M.I.Kalinina (glavnyy vrach - B.O.
Shaparenko).
                       (WHOOPING COUGH)

REZNIK, B.Ya.; BRYUM, R.M.; STARODUB, N.S.; MANOLOVA, E.P.; IVANOVA, S.S.

Schick's reaction in Stalino children vaccinated against diphtheria;
author's abstract. Zhur.mikrobiol.epid.i immun. 31 no.8:142 Ag
'60.   (MIRA 14:6)

1. Iz Stalinskogo meditsinskogo instituta.
                    (STALINO--DIPHTHERIA)

BRYUM, R.M.

Combined treatment of whooping cough with antibiotics and
gamma globulins. Pediatriia no.9:62-67 '61.   (MIRA 14:8)

1. Iz kafedry detskikh infektsionnykh bolezney (i.a. zav. -
kand.med.nauk B.Ya. Reznik) Stalinskogo meditsinskogo insti-
tuta (dir. A.M. Ganichkin) i bol'nitsy imeni Kalinina (glavnyy
vrach - kand.med.nauk B.A. Shaparenko).
          (WHOOPING COUGH) (ANTIBIOTICS) (GAMMA GLOBULIN)

BRYUN, Ye.S.

Boundary of the middle and upper Jurassic deposits in the Northern
Caucasus. Vest.Len.un.10 no.10:89-96 O '55.   (MIRA 9:1)
        (Caucasus, Northern--Geology, Statigraphic)

BRYUNELLI, B. YE.

"Magnetic Variation Stations of the Mobile Type", <u>Trudy NIIZM</u>, No 2, 1948 (90-94).

SO: U-3039, 11 Mar 1953

BRYUNELLI, B.Ye.

USSR/ Geophysics – Magnetic fields

Card 1/1 Pub. 22 – 20/56

Authors   : Bryunelli, B.Ye.

Title   : About a possible cause of perturbations of the daily variation of the earth's magnetic field

Periodical : Dok. AN SSSR 99/5, 741-743, Dec. 11, 1954

Abstract   : A theory on the causes of daily variations of the earth's magnetic field is discussed. Two turbulent flows, formed by particles streaming from the sun toward the earth, are considered to be responsible for the above mentioned variations. A mechanism, which would explain why and how these streaming particles form two turbulent flows (a day-time vortex and a night-time vortex), is described. Three references: 2-USSR (1952-1953) Diagram.

Institution: The Leningrad State University im. A.A. Zhdanov
Presented by: Academician G.A. Gamburtsev, August 7, 1954

BRYUNELLI, B.Ye.; NIZYAYEV, D.A.

A magnetograph with visible recording. Izv.AN SSSR.Ser.geofiz.
no.8:1064-1068 Ag '57.   (MLRA 10:8)

1. Leningradskiy gosudarstvennyy universitet im. A.A. Zhdanova.
                        (Magnetometer)

SOV/49-58-7-10/16

AUTHORS: Bryunelli, B.Ye., Nizyayev, D.A. and Kanonidi, Kh.D.

TITLE: Stabiliser of Magnetic Field (Stabilizator magnitnogo polya)

PERIODICAL: Izvestiya Akademii NaukSSSR, Seriya Geofizicheskaya, 1958, pp 917 - 920 (USSR)

ABSTRACT: The geomagnetic laboratory of Leningrad University designed an apparatus which diminishes the effect of the exterior electromagnetic field on the field of a measuring instrument based on the magnetic principle. The apparatus generates its own electric current in proportion to the variations of a magnetic field required to be stabilised. The Helmholtz circuit is added in order to maintain an exact relationship between the magnetic field and the electric current.
The magnetometer, type M-2, is employed as a part of the design (Figure 1). It was modified by the inclusion of a photo-electric device. The light of the small car bulb (1) is projected onto the plate (5) by means of the prism (2), the objective (3) and a mirror of the magnetometer (4). The plate (5) screens the photocell (6). When, due to movement of the mirror, some light falls on the photocell, an electric current will generate. This

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Stabiliser of Magnetic Field   SOV/49-58-7-10/16

current, after being amplified by (7), is directed to
the coil (8) placed near the magnetometer. The purpose
of the coil is to produce an electromagnetic field in
order to counteract the variations of the magnetometer
field.
If (H) denotes the field inside the instrument and the
angle of magnet reflections is $k_1 H_1$ the amplified
current will be i . The field produced by the coil (8)
is H_2 . The field of the instrument will be affected
by the variations of the Earth's magnetism, as indicated
by Eqs.(1) to (3).
Several types of the amplifier can be used. The simple
type (Figures 2 and 4) will give a satisfactory result
but if a higher coefficient of intensification is
required, a more powerful type (Figure 3) should be
employed.
The coefficient of intensification k , in relation to
the magnet deflection of the instrument, can be calculated
from the Eqs.(4) to (6).
In practice, the results obtained were very consistent.

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Stabiliser of Magnetic Field   SOV/49-58-7-10/16

The instrument, placed in a building situated in the midst
of a heavy traffic of tramways and trolley-buses, gave a
magnetic stabilisation of 2-3 γ for the variations in the
magnetic field ranging from 60 to 100 γ. These variations,
in spite of their rapid character, never affected the
steadiness of stabilisation.
There are 4 figures and 2 references,1of which is Soviet
and 1 French.

ASSOCIATION: Leningradskiy gosudarstvennyy universitet im.
                A.A. Zhdanova (Leningrad State University imeni
                A.A. Zhdanov)

SUBMITTED: February 20, 1957

Card 3/3
                1. Magnetic fields--Stabilization   2. Magnetometers--
                Applications   3. Earth--Magnetic effects   4. Instruments--
                Magnetic factors

S/169/60/000/006/001/021
A005/A001

AUTHORS: Bryunelli, B. Ye., Dobrovol'skaya, M. A.

TITLE: The Determination of the Electromechanical Connectivity Factor of a Geophone

TEXT: Four methods are described for laboratory determination of the electromechanic connectivity factor of geophones within the limits of linear displacements of the inert mass (the ballistic method, and the methods of inclines, weighing, and shocks). The analysis of accuracy of these methods is carried out.

Translator's note: This is the full translation of the original Russian abstract.

Card 1/1

BAKALINSKIY, S.P.; BRYUNELLI, B.Ye.; KROTEVICH, N.F.

Recording geomagnetic pulsations by a highly sensitive magneto-graph. Mezhdunar.geofiz.god. no.7:65-67 '59.
(MIRA 13:2)

(Magnetometer)

SOV/49-59-7-16/22

AUTHOR: Berdichevskiy, M. N. and Bryunelli, B. Ye.

TITLE: The Theoretical Considerations Regarding the Application of the Magneto-Telluric Method in Profiling

PERIODICAL: Izvestiya Akademii nauk SSSR, Seriya geofizicheskaya, 1959, Nr 7, pp 1061-1069 (USSR)

ABSTRACT: The relationship of the electric and magnetic components of the plane wave in the horizontal homogeneous media (Fig 2) is considered. The assumption is made that in the case of sloping rock layers, more complex relationships take place which can be utilized in determining the mean longitudinal conductivity and the inclination of rock layers. This can be done when simultaneous observations of the electric (E_x, E_y) and magnetic (H_x, H_y) field components (Figs 4 and 5) are made. The analysis of the data thus obtained can be performed by means of the variable diagrams, as employed in the method of telluric currents. There is a series of advantages in applying this method in oil geophysics. Some of them are: 1) it becomes unnecessary to carry out observations at two different points of an area, therefore the network of outstations can be neglected; 2) the observations become greatly simplified; 3) the

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SOV/49-59-7-16/22

The Theoretical Considerations Regarding the Application of the
Magneto-Telluric Method in Profiling

absolute value of S is determined (Fig 4). As a result
of the first two points, the prospecting can be made more
economical. The third point gives a better accuracy of
the geological analysis. There are 5 figures, 1 table and
6 references, of which 5 are Soviet and 1 English.

ASSOCIATION: VNIIgeofizika Leningradsk y gosudarstvennyy universitet
im. Zhdanova (VNII Geophysics; Leningrad State University
im. Zhdanov)

SUBMITTED: March 3, 1958.

Card 2/2

SOV/49-59-8-15/27

AUTHORS: Bryunelli, B. Ye., Berdichevskiy, M.N., Alekseyev, A.M.
           and Burdo, O.A. (Deceased)

TITLE: Observed Variations of the Micro-pulsations of the
           Earth's Electromagnetic Field

PERIODICAL: Izvestiya Akademii nauk SSSR, Seriya geofizicheskaya,
            1959, Nr 8, pp 1206-1213 + 2 plates (USSR)

ABSTRACT: Observations of a magnetotelluric field were carried
           out on September 4 to 9, 1957 in South Tyumensk
           ($\varphi = 56°40'$, $\lambda = 67°$), where a method of measurements
           illustrated in Fig 1 was applied (I - oscillograph, see
           Fig 3, II - magnetometer, see Figs 4 and 5). The
           variations of the period between 10 to 50 secs were
           recorded. The reciprocal impedance was defined as
           Eq (1), where $H_y E_x$ - amplitude of monoharmonic
           variations of the components H and E expressed in
           γ and mV/km, S - total longitudinal conductivity of
           the top layers, Eqs (2) to (4), T - period of variations,
           ρ_n - specific resistance of the foundation layer. The
           curve of the dipole azimuth sounding near the point of
           observation is shown in Fig 2. Its left-hand curve

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SOV/49-59-8-15/27

Observed Variations of the Micro-pulsations of the Earth's
Electromagnetic Field

represents the layers of the Quaternary formation
with 20 to 30 Ohms of resistance, while the right-hand
curve corresponds to the Paleozoic period showing
resistance 500 Ohms. The corresponding total thickness
of layers is 1125 m, its mean resistance ρ_e = 3.2 Ohm and
the total conductivity S = 350 Ohms^{-1}. The examples
of recordings of the variations of a magnetic field
obtained by two magnetometers are reproduced in Fig 6
and those of electric and magnetic fields (perpendicular
to each other) are shown in Fig 7. The oscillogram in
Fig 8 illustrates the magnetotelluric variations
during a magnetic storm. The results of statistical
analysis of the data and the calculations based on
Eq (3) for the oscillograms illustrated in Fig 7b are
tabulated in Table 1.   Table 2 gives similar results
of analysis based on 23 oscillograms. The results
obtained signify that a new method of geophysical
surveying can be developed based on the experiments

Card 2/3

Observed Variations of the Micro-pulsations of the Earth's   SOV/49-59-8-15/27
Electromagnetic Field

       described.
       There are 8 figures, 2 tables and 8 references,
       6 of which are Soviet and 2 English.

ASSOCIATION: Ministerstvo geologii i okhrany nedr VNIIgeofizika
       (Ministry of Natural Resources VNIIgeofizika) and
       Leningradskiy gosudarstvennyy universitet imeni
       A. A. Zhdanova (Leningrad State University imeni
       A. A. Zhdanov)

SUBMITTED: March 28, 1958

Card 3/3

~~~~~ 84587

3.1810   S/169/60/000/009/005/007
                  A005/A001
Translation from: Referativnyy zhurnal, Geofizika, 1960, No. 9, pp. 196-197,
11612

Cand. Physics - mathematical Sci.

AUTHORS: Bryunelli, B.Ye., Sandulenko, S.M.

TITLE: Radar Observations of the Polar Lights at Mirnyy

PERIODICAL: Inform. byul. Sov. antarkt. ekspeditsii, 1959, No. 13, pp. 29-33

TEXT: The radar observations of polar lights began at Mirnyy in 1959. A
radar with revolving antenna is used which operates at 72 Mc frequency; the
coverage of the radar is 1,000 km. Altogether 7,333 shots were taken during the
observation period; 585 of them were with reflections. The reflections represent
in the overwhelming majority of the cases a totality of individual pulses which
are not resolved with respect to the distance. The aurorae were observed in the
main from 4^h to 20^h Greenwich Time; two maxima in 5^h - 8^h and 12^h - 16^h are ex-
pressed clearly. In March, the reflection rose is presented by a three-lobe
configuration, the main lobe of which is directed to East; in April, the main

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84587

S/169/60/000/009/005/007
A005/A001

Radar Observations of the Polar Lights at Mirnyy

lobe has 40° azimuth. In May, a nearly uniform distribution of the reflections
was observed in the sector from 30° - 90°. Reflections from distances of 650-
750 km occurred most frequently. The altitude values obtained were less than
100 km.

N.V.Z.

Translator's note: This is the full translation of the original Russian ab-
                    stract.

Fourth Continental Expedition

Card 2/2

S/203/61/001/005/009/028
A006/A101

AUTHORS: Bryunelli, B.Ye., Sandulenko, S.M.

TITLE: Radar observations of auroras at Soviet Antarctic stations in 1959

PERIODICAL: Geomagnetizm i aeronomiya, v. 1, no. 5, 1961, 679 - 686

TEXT: The authors analyze the results of radar observations of auroras carried out at the Mirnyy and Vostok stations in 1959. Peculiarities in the seasonal variations of the number of reflections at Mirnyy are noted. In the diurnal rate two maxima were observed, which are created by reflections received from various directions. They are probably connected with the basic and inner zones of auroras. Similar conclusions can be drawn from data obtained from the Dumont-Durville station. The diurnal rate of the number, the azimuth, and the distance of reflections is illustrated in a number of graphs. At the Vostok station, the diurnal variation is characterized by a minimum with almost complete absence of reflection during the morning hours (local time 0 - 5 hours UT). During the day the number of reflections increases sharply, attaining a maximum in the afternoon and early evening (8 - 10 hours UT); and then decreasing. The radar observations carried out at Mirnyy and Vostok during a relatively short period revealed a num-

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Radar observations ...

S/203/61/001/005/009/028
A006/A101

ber of substantial peculiarities in the geophysical phenomena of these regions.
Two types of reflections are detected, the one of which should be connected with
the basic zone of auroras and the other one with the inner zone. This statement
does not only support the hypothesis on the existence of an inner zone, but re-
veals also some of its properties, such as activity during the day. This fact
proves the efficiency of employing radar methods for geophysical investigations,
which should be preferably used when investigating the second zone. Another pe-
culiarity is the absence of correlations between radar reflections and magnetic
activity, characteristic of intrazonal stations (e.g. Mirnyy). The observations
are continuing. There are 9 figures and 5 references: 4 Soviet-bloc and 1 non-
Soviet-bloc.

ASSOCIATION: Leningradskiy gosudarstvennyy universitet im. A.A. Zhdanova (Lenin-
grad State University imeni A.A. Zhdanov)

SUBMITTED: July 15, 1961

Card 2/2

BERDICHEVSKIY, M.N.; BRYUNELLI, B.Ye.; LANTSOV, A.Ye.; RASPOPOV, O.M.

Use of natural electromagnetic variations for studying the upper layers of the earth. Uch.zap.LGU no.303:49-55 '62.

(MIRA 15:11)

(Electromagnetic prospecting)

BRYUNELLI, B.Ye.

Polar magnetic disturbances. Geomag. i aer. 2 no.5:801-821
S-O '62.   (MIRA 15:10)
                    (Magnetic storms)

BRYUNELLI, B.Ye.

Variations in the magnetic field at conjugate points. Geomag. i aer. 2 no.5:933-942 S-O '62.

(MIRA 15:10)

1. Leningradskiy gosudarstvennyy universitet.
(Magnetism, Terrestrial)

BRYUNELLI B.Ye.

Electric field of a polar magnetic disturbance. Geomag. i aer.
3 no:5:929-937 S-O '63.   (MIRA 16:11)

1. Leningradskiy gosudarstvennyy universitet.

Y YEVSKIY, Boris Mikhaylovich; Prinyal uchastiye BRYUNELII, B.Ye.,
        dots.; TSAR'KOVA, Z.I., red.

[Terrestrial magnetism] Zemnoi magnetizm. Leningrad, Izd-
vo Leningr. univ. Vol.1. [Morphology and theory of the
earth's magnetic field and its variations] Morfologiia i
teoriia magnitnogo polia Zemli i ego variatsii. 1964. 445 p.
                                                (MIRA 17:8)

1. Kafedra fiziki zemnoy kory Leningradskogo gosudarstven-
nogo universiteta (for Bryunelli).

ACCESSION NR: AP4043137   S/0049/64/000/007/0999/1006

AUTHOR: Yanovskiy, B. M., (Doctor of physico-mathematical sciences),Brunelli, B.Ye.,
Kovtun, A.A., Kuznetsov, N.S., Raspopov, O.M., Chicherina, N.D.

TITLE: Magnetotelluric sounding in the Central Russian Depression

SOURCE: AN SSSR. Izv. Seriya geofizicheskaya, no. 7, 1964, 999-1006

TOPIC TAGS: magnetotelluric sounding, geology, geophysics, terrestrial conductivity,
magnetotelluric profiling, electrical profile

ABSTRACT: Information published earlier on magnetotelluric sounding work in the
Central Russian Depression is reviewed, and new work done in the central part of the
region is described. The work was undertaken to determine the value of the total longi-
tudinal conductivity and the depth and thickness of the poorly conducting basement. Informa-
tion on the relief of the bottom of the depression is contradictory; data obtained by drilling,
logging and sounding are compared. It is noted that the electrical profile of the studied
region can be represented schematically as a three-layer structure with an upper layer of

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ACCESSION NR: AP4043137

relatively high resistivity, a layer of low resistivity and a base of high resistivity. It was
with these initial data and concepts that an expedition from the Leningradskiy gosudarst-
venny*y universitet (Leningrad State University) began magnetotelluric sounding work in
the summer of 1962. Sounding was done at four points along a profile running across the
assumed strike of the axis of the depression. Several days were spent at each point.
The variations of the H_x H_y Ex and E_y components of the electromagnetic field were recorded.
Variations with different periods were recorded continuously for the period from 14 August
through 4 September, 1962. A spectrum of variations from 5-10 to 2000-3000 seconds was
obtained at each point. The vectors of variations in E and H in most cases were not per-
pendicular to one another. For periods of less than 400 seconds they were nonperpendicular
by only 2-8°, but for greater periods the deviation was 10-15°. The methods and formulas
used in processing the data are presented. It was found that all the curves obtained in ap-
proximately the same geological region differ in behavior in the region of small periods,
indicating considerable variation in the sedimentary complex of the studied region. In
addition, in the region of large periods on all the sounding curves, there was a maximum
indicating an increase in conductivity at great depths. A formula for estimating the thick-
ness of poorly conducting layers is given. The new magnetotelluric sounding data are

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ACCESSION NR: AP4043137

compared with drilling data. It was found that the depth of the upper surface of the well-conducting layer varies from point to point in the range 200–400 km; it is noted that variations of this scale also have been reported elsewhere in the literature. Orig. art. has: 7 formulas, 3 figures and 3 tables.

ASSOCIATION: Leningradskiy gosudarstvenny*y universitet imeni A. A. Zhdanova (Leningrad State University)

SUBMITTED: 10Jul63   ENCL: 00

SUB CODE: ES   NO REF SOV: 012   OTHER: 002

Card   3/3

ACCESSION NR: AP4043136   S/0049/64/000/007/0990/0998

AUTHOR: Bryunelli, B. Ye.

TITLE: Magnetotelluric profiling in the case of a horizontally nonhomogeneous medium

SOURCE: AN SSSR. Izv. Seriya geofizicheskaya, no. 7, 1964, 990-998

TOPIC TAGS: magnetotelluric profiling, geomagnetic field, geophysics, terrestrial
electromagnetic field, terrestrial conductivity, electrical profile

ABSTRACT: The magnetotelluric sounding method as developed initially by Tikhonov and
Cagniard and the magnetotelluric profiling method as developed by Berdichevskiy and the
present author are briefly reviewed, with emphasis on their limitations. In particular,
in the method as developed until recently, it has been a common simplifying assumption to
consider the layers to be homogeneous in a horizontal direction, which limits the method
because horizontal nonhomogeneities are common and often of considerable extent. In this
paper, Bryunelli considers the relations between the components of the electromagnetic
field when magnetotelluric profiling is done over horizontally nonhomogeneous media. The
coefficients of linear correspondence between the components of the electric and magnetic

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ACCESSION NR: AP4043136

fields are derived in explicit form for a case when the electric properties of the stratum are characterized by three parameters: The conductivities along the two mutually perpendicular axes and their azimuth. Formulas are presented for finding the coefficients of correspondence on the basis of the observed amplitudes and phases of the variations. The problem of taking into account the conductivity of the basement is considered. The author recommends that the interpretation of data for the case of a two-dimensional structure be done separately for the two principal polarizations and suggests that polarization be determined from the character of the variations of the vertical magnetic component. Orig. art. has: 26 formulas and 5 figures.

ASSOCIATION: Leningradskiy gosudarstvenny*y universitet imeni A. A. Zhdanova (Leningrad State University)

SUBMITTED: 10Jul63   ENCL: 00

SUB CODE:-ES   NO REF SOV: 012   OTHER: 002

Card 2/2

YANOVSKIY, B.M.; BRYUNELLI, B.Ye.; KOVTUN, A.A.; KUZNETSOV, N.S.;
    RASPOPOV, O.M.; CHICHERINA, N.D.

Magnetotelluric sounding in the Central Russian Depression.
Izv. AN SSSR. Ser. geofiz. no.7:999-1006 Jl '64.
                                        (MIRA 17:7)
1. Leningradskiy gosudarstvennyy universitet imeni Zhdanova.