S/006/60/000/06/04/025
B007/B005

AUTHORS: Voronin, V. A., Pik, L. I., Plonskiy, S. S.

TITLE: Testing of the Optical Range Finder ГД-300 (GD-300)

PERIODICAL: Geodeziya i kartografiya, 1960, No. 6, pp. 14 - 23

TEXT: This is a report on tests of a model of the optical range finder
ГД-300 (GD-300) carried out by the Gidroproyekt Ministerstva stroitel'stva
elektrostantsiy (Gidroproyekt of the Ministry for the Construction of
Electric Power Plants) in the fall of 1959. It was developed on the basis
of the range finder ГОИ (GOI) with light modulation by diffraction (Ref.,
Footnote on p. 14). The device consists of an optical block, a phase-
measuring block, a current source, and a reflector (Figs. 1,2). Fig. 3
shows a simplified scheme of the device. The device has some advantages
over other optical range finders. It has a light modulator with some
counter-ultrasonic transmitters, and the phase comparison is done by a
separate phase detector (Fig. 3). On account of these two characteristics,
distances up to 7 km can be measured in bright sunshine, up to 15 km in

Card 1/3

Testing of the Optical Range Finder   S/006/60/000/06/04/025
ГД -300 (GD-300)   B007/B005

dull weather, and much longer distances at night. Three light-modulation
frequencies (10, 10.025, and 10.5 Mc/s) are used for range finding in this
device. A one-sided optical telephone is used to maintain the connection
to the operators of the reflector. The mode of operation of the device is
explained. The following measurements were made during the field tests of
the device: 1) Measurement of the side of the "frame triangulation"
established by the Gidroproyekt in 1955-1959 according to the program of
the State triangulation of the 2nd order (used for observing the horizontal
shifts of the Volzhskaya gidroelektrostantsiya im. V. I. Lenina (Volga
Water Power Plant imeni V. I. Lenin)), and 2) measurement of the side of
the triangulation of the 2nd order established by the Gidroproyekt in 1950-
1952 (Figs. 4,5). The data for estimating the accuracy of measurement are
given in Tables. To estimate the errors in longitudinal measurements,
Tables 3 and 4 compare the sides measured by the optical range finder
ГД -300 (GD-300) with those obtained by triangulation. On the basis of the
tests carried out, some recommendations are given to improve the construc-
tion of the device. The test results showed that the device is well suited
for the establishment of a network of topographic surveys in the planning
of large hydraulic constructions. There are 5 figures, 4 tables, and

Card 2/3

Testing of the Optical Range Finder
ГД -300 (GD-300)

S/006/60/000/06/04/025
B007/B005

1 Soviet reference.

√B

Card 3/3

TSYBULEVSKIY, A.I.; DOBROTIN, D.A.; VORONIN, V.A.; GOMOZOVA, N.A.,
       red.izd-va; BOROVNEV, N.K., tekhn. red.

    [Treatment of limestones from Crimean deposits; from the
    work experience of the A.M.Gor'kii Mining and Ore Dressing
    Administration in Balaklava] Pererabotka izvestniakov Krym-
    skikh mestorozhdenii; iz opyta raboty Balaklavskogo rudoup-
    ravleniia imeni A.M.Gor'kogo. Moskva, Gosstroiizdat, 1963.
    64 p.   (MIRA 17:2)

VORONIN, V.A., inzh.; VYSOTSKIY, V.I., inzh.

Studying the duty balance of the SKG-3 rice and grain combine.
Trakt. i sel'khozmash. 33 no.9:21-24 S '63.   (MIRA 16:10)

(Combines (Agricultural machinery))

KARPILEVICH, V.D.; VORONIN, V.A.

Hydraulic distributor for agricultural machines. Trakt i
sel'khozmash. no.1:37-38 Ja '65.   (MIRA 18:3)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut sel'skokho-
zyaystvennogo mashinostroyeniya.

VORONIN, V. A.   /5

PHASE I BOOK EXPLOITATION   BCY/6100

Akademiya nauk SSSR. Institut tochnoy mekhaniki i vychislitel'noy
    tekhniki.

Trudy (Academy of Sciences of the USSR, Institute of Precision
    Mechanics and Computer Technology. Transactions) no. 2.
    Moscow, 1961. 447 p. 1000 copies printed. Contributors not
    mentioned.

PURPOSE: This collection of articles is intended for scientific and
    technical personnel concerned with machine translation and computer
    technology.

COVERAGE: This collection of articles of the Institute of Precision
    Mechanics and Computer Technology, Academy of Sciences USSR, is
    the second in a series concerned with machine translation and
    mathematical linguistics. The collection contains reports written
    by members of the Machine-Translation Group of the Institute as
    well as reports by researchers from other organizations. The
    articles deal with various problems in machine translation, such
    as the possibility of an intermediate language, relationships
    between various languages, systems of recording, structure of

Card 1/6

Academy of Sciences (Cont.)

SOV/6100

algorithms, methods of independent analysis of a number of languages (Chinese, German, English, Russian, Rumanian, Swedish, Tartar, etc.), independent synthesis of the Russian language, some problems of binary Japanese-Russian and Chinese-Russian translation, theoretical translation problems, and problems associated with automatic recognition of speech elements and the introduction of written texts. No personalities are mentioned. There are 11 references: 2 Soviet and 9 English.

TABLE OF CONTENTS:

1. Preface   3

2. Belokrinitskaya, S. S., G. A. Volchek, M. B. Yefimov, A. A. Zvonov, T. M. Nikolayeva, and G. A. Tarasova. One of the Possible Approaches to the Building-Up of a Vocabulary for an Intermediate Language.   5

3. Zholkovskiy, A. K., N. N. Leont'yeva, and Yu. S. Martem'yanov. On the Fundamental Used of Meaning in Machine Translation.   17

Card 2/6

Academy of Sciences (Cont.)

SOV/6100

4. Ivanov, Ye.Ye. Machine Translation and the Establishing of Relationships Between Linguistic Systems

47

5. Voronin, V. A. Operational Form of an Algorithm for Machine Translation

70

6. Mel'chuk, I. A. On Standard Operators for an Algorithm for Automatic Analysis of a Russian Scientific Text

85

7. Voronin, V. A. System of Independent Configurational Analysis of a Chinese Text in Machine Translation

135

8. Zherebin, M. Ye. Structure and Character of a Glossary for an Independent Analysis of a Chinese Text

173

9. Zherebin, M. Ye. On the Solution of a Conversional Homonomy in the Independent Analysis of a Chinese Text

180

10. Parshin, V. V. Description of the Structure of an Independent Grammatical Analysis for Machine Translation From the German

192

Card 3/6

VORONIN, V.A., inzhener.

Self-propelled track chassis for rice and grain combines. Sel'khoz-
mashina no.10:22-24 O '56.   (MLRA 9:12)
        (Combines (Agricultural machinery))
            (Caterpillars (Vehicles))

VORONIN, V.A.

Mechanized harvesting of rice. Trakt. i sel'khozmash. no.10:
18-20 O '58.   (MIRA 11:10)
                (Rice--Harvesting)

KHISHCHUK, A.A.; BUCHINSKIY, Yu.L.; ROGACHEV, Ye.N.; VORONIN, V.A.;
    KILOCHITSKIY, N.G.; LISKONOG, N.G.; CHEVKOV, L.V., red.
    izd-va; OVSEYENKO, V.G., tekhn. red.

[Practice of constructing headframes] Opyt stroitel'stva
bashennykh koprov. Moskva, Gosgortekhizdat, 1963. 82 p.
                                      (MIRA 16:4)
        (Mine buildings)

VORONIN, V. G., Cand Chem Sci -- (diss) "Synthesis of racemic

tubocurarine iodide." Mos, 1958. 7 pp (Min of Higher Education

USSR, Mos Inst of Fine Chem Technology im M. V. Lomonosov, Chair

of Technology of Medicinal and Aromatic Substances), 160 copies

(KL, 35-58, 105)

AUTHORS: Tolkachev, O. N., Voronin, V. G.,   SOV/79-28-12-36/41
             Preobrazhenskiy, N. A.

TITLE: Synthesis of Bromine-Substituted β-Phenyl-Ethyl Amines (Sintez
             bromzameshchennykh β-feniletilaminov)

ABSTRACT: β-(3-methoxy-4-oxy-5-bromo-phenyl)-ethyl amine (I) is an
             important intermediate product in the synthesis of dimethyl
             ether of the racemic alkaloid tubocurarine iodide (Ref 1).
             The synthesis of compounds of similar structure takes place
             in several steps and offers small yields (Refs 2-4). As the
             orientation in the halogenation (especially bromination) in
             similar molecules is not sufficiently explained the working
             out of the bromination of the substituted β-phenyl-ethyl amine
             is of certain importance to obtain the necessary bromine deri-
             vatives. Some chemists showed that from eugenol, isoeugenol,
             and olivine (Refs 5-8) 5-bromine-containing derivatives could
             be obtained, whereas from creosol (Refs 9, 1o) and homovanillic
             acid (Ref 11) as well as from dimethoxy, dibenzyloxy, and
Card 1/2   other derivatives 6-bromine isomers are formed (Refs 12-18).

Synthesis of Bromine-Substituted β-Phenyl-Ethyl Amines   SOV/79-28-12-36/41

It may be concluded therefrom that in the bromination the positions C_5 and C_6 are probable. In carrying out the reaction without solvents a mixture of these isomers and a small amount of the dibromine product were formed. Compound(I) in practically pure state is obtained by the bromination of compound (II) in acetic acid solution, as well as by the reduction of the compound (III) with aluminum-lithium hydride (Scheme 1). It was shown that the bromination of the acid sulfate of β-(3-methoxy-4-oxy-phenyl)-ethyl amine leads to the 6-bromine isomer. The hitherto unknown β-(3,4-dimethoxy-6-bromo-phenyl)-ethyl amine and 3-bromo tyramine (XII) were synthesized as well. There are 23 references, 3 of which are Soviet.

ASSOCIATION: Moskovskiy institut tonkoy khimicheskoy tekhnologii (Moscow Institute of Fine Chemical Technology)

SUBMITTED: October 23, 1957

Card 2/2

SOV/20-121-3-17/47

AUTHORS: Voronin, V. G., Tolkachev, O. N., Preobrazhenskiy , N. A.

TITLE: The Synthesis of Methyl Ethers of Isomeric Chondrofolines, Chondodendrines and Tubocurarines (Sintez metilovykh efirov izomernykh khondrofolinov, khondodendrinov i tubokurarinov)

PERIODICAL: Doklady Akademii nauk SSSR, 1958, Vol. 121, Nr 3, pp. 455-457 (USSR)

ABSTRACT: Observing a molecule of d-tubocurarine (I) (Ref 1) two asymmetry centers can be seen. According to the classical theory this would imply the existence of two racemic forms and of four optically active isomers. Taking into account the fundamental theorems of conformation analysis of a tertiary base namely of chondodendrine and its quaternary salt tubocurarine four racemic formulae could be assumed solely because of the existence of isomery in the case of C_1 and C_1'''.

As a result of the cis- and trans-positions of the substituents on the nitrogen atom of tertiary bases and because of the conformation of tetra-hydro-isoquinoline nuclei the mentioned formulae of the main alkaloids of the tube curare do not

Card 1/3

The Synthesis of Methyl Ethers of Isomeric Chondrofolinds, Chondodendrines and Tubocurarines

yet exhibit any isomery. Clear data on the configuration of tetra-hydro-isoquinolines are lacking in publications. According to latest papers it may be assumed that the nuclei of these compounds may exist in various shapes (chair-, tub shape) which are distorted as a result of the presence of an aromatic cycle in the condensed system of the mentioned nucleus. These types of isomery apparently occur also in curare alkaloids. That implies a corresponding increase of the amount of possible isomers. Moreover, that amount may further increase in consequence of the non-planar structure of the microcyclic diether system which cannot be clearly classified. The authors worked out the synthesis system of the substances mentioned in the title. This scheme is distinguished by the fact that the asymmetry centers do not occur before the last stages of synthesis. The latter are carried out under milder conditions which do not result in any isomerizations, transformations etc. Thus, by selection of suitable conditions the authors succeeded in carrying out the synthesis of 2 isomeric O-methyl-chondrofolines, 2 isomeric O,O'-dimethyl-chondodendrines and 4 isomeric O,O'-di-

Card 2/3

The Synthesis of Methyl Ethers of Isomeric Chondrofdlines, Chondodendrines   SOV/20-121-3-17/47
and Tubocurarines

          methyl-tubocurarine-iodides. The process of synthesis and
          several produced salts of the mentioned substances are men-
          tioned together with structure schemes. There are 1 figure,
          and 1 reference, 1 of which is Soviet.

ASSOCIATION: Moskovskiy institut tonkoy khimicheskoy tekhnologii im.
               M. V. Lomonosova (Moscow Institute of Fine Chemical Technology
               imeni M. V. Lomonosov)

PRESENTED: March 7, 1958, by A. N. Nesmeyanov, Member, Academy of Sciences,
               USSR

SUBMITTED: March 7, 1958

Card 3/3

AUTHORS: Voronin, V. G., Tolkachev, O. N.,   SOV/20-122-1-20/44
             Preobrazhenskiy, N. A.

TITLE: The Synthesis of Racemic Tubocurarine (Sintez ratsemi-
             cheskogo tubokurarina)

PERIODICAL: Doklady Akademii nauk SSSR, 1958, Vol 122, Nr 1,
             pp 77 - 79 (USSR)

ABSTRACT: The effective substance of blow-pipe curare are the
             alkaloids of the bisbenzyl tetrahydro-isoquinoline
             group of unsymmetrical structure. Those alkaloids
             are distinguished from one another by the degree of
             methylation of nitrogen atoms and phenol hydroxyls.
             The following are secondary and tertiary bases:
             ℓ-chondrofoline, d- and ℓ-curarine and some others.
             The main representative of quarternary ammonium
             salts is d-tubocurarine chloride (tubocurarine, curarine)
             (X). Its physiological activity is great since it
             causes the relaxation of the cross-striated muscles.
             In spite of intensive investigations it has hitherto
Card 1/3   remained impossible to prove the chemical structure

The Synthesis of Racemic Tubocurarine   SOV/2o-122-1-2o/44

of tubocurarine by synthesis. The authors brought
about their scheme of synthesis of phenol alkaloids
of the chondodendrine series by a subsequent structure
of the system containing the elements of natural
alkaloid (scheme on page 78). The process of the syn-
thesis is described in detail. Its final stage is
the formation of a macrocyclic system by closing
the second ether binding to a chlorine hydrate (VII)
with the melting point from 176-180°. By subsequent
reduction it was possible to isolate 3 isomeric nor-
chondrofolines (VIII):Chlorine hydrates: 1) With a melting
point from 174 - 176°, 2) from 194-196° and 3) from
185-187,5°. The two former were changed to bi-tertiary
bases by methylation. With respect to their composition
the bases corresponded to chondodendrine (IX). On
the strength of the carried out reactions the mentioned
synthetic compound may be regarded as a racemate of the
natural alkaloid.

Card 2/3

The Synthesis of Racemic Tubocurarine   SOV/20-122-1-2o/44

ASSOCIATION: Moskovskiy institut tonkoy khimicheskoy tekhnologii im.
               M.V.Lomonosova (Moscow Institute of Fine Chemical Tech-
               nology imeni M.V.Lomonosov)

PRESENTED: April 30, 1958, by A.N.Nesmeyanov, Member, Academy of
               Sciences, USSR

SUBMITTED: April 28, 1958

Card 3/3

5(3)
AUTHORS: Tolkachev, O. N., Voronin, V. G., Preobrazhenskiy, N. A.

TITLE: Synthesis of the Dimethyl Ether of the Alkaloid (±) Tubocurarine
             Iodide (Sintez dimetilovogo efira alkaloida (±) tubokuraninyodida)

ABSTRACT: The present paper describes the synthesis of these alkaloids ac-
             cording to the scheme mentioned which has rendered possible the
             synthesis of isomeric tertiary bases, the curines, and the salts
             of quaternary bases, the curarines. The scheme is based on the
             successive development of the system which contains elements of
             natural alkaloid the final stage of which is the formation of
             the second oxygen bridge: Compound (V) obtained by catalytic
             reduction of the relevant ω-nitrostyrene (Ref 7) is condensed
             with (VI) to (VII). The potassium salt of (VII), when transformed
             with the esters of (VIII) in the presence of copper, results in
             the compounds (IX, R=CH$_3$ or C$_2$H$_5$; R'=CH$_2$C$_6$H$_5$). The products ob-
             tained are saponified into the corresponding acid (IX, R=H,
             R'=CH$_2$C$_6$H$_5$) and debenzylated by Pd into the amide (IX, R=R'=H).

Card 1/2   The amide (X, R=H) results from (IX, R=CH$_3$ or C$_6$H$_5$; R'=CH$_2$C$_6$H$_5$)

Synthesis of the Dimethyl Ether of the Alkaloid ($\pm$) Tubocurarine Iodide

and (XI) as well as from (IX,R=H,R'=CH$_2$C$_6$H$_5$) and (XI). The compound (X,R=H) is methylated with methyl iodide to form compound (X,R=CH$_3$) which is then cyclized with phosphorus oxychloride. In this process a mixture of phosphates and chlorides forms, from which the base (XII) is obtained. The benzyl-oxy group of this base is saponified and the resultant quinoline (XIII) is then transformed by heat into (XIV) in the presence of copper, potash, and pyridine. After the reduction with zinc dust, (XIV) is methylated to form (XVI). Compound (XVI) changes with methyl iodide into the dimethyl ether ($\pm$) of tubocurarine iodide (IV). Its ultraviolet spectrum is identical with the corresponding spectrum of the same ether of natural ($\pm$)-tubocurarine iodide. The test mixture of both products did not result in a depression of the melting point. There are 7 references, 1 of which is Soviet.

ASSOCIATION: Moskovskiy institut tonkoy khimicheskoy tekhnologii (Moscow Institute of Fine Chemical Technology)

SUBMITTED: February 14, 1958

Card 2/2

BRATUS, I.N.; VORONIN, V.G.

    Synthesis of coumarin. Trudy VNIISNDV no.5:34-37 '61. (MIRA 14:10)

                    (Coumarin)

BRATUS, I.N.; VORONIN, V.G.; BOGDANOV, K.A.

Purification of industrial salicylaldehyde, obtained by the
Timan-Reimer method. Trudy VNIISNDV no.5:111-112 '61. (MIRA 14:10)
(Salicylaldehyde)

VORONIN, V.G.; TOLKACHEV, O.N.; PREOBRAZHENSKIY, N.A.

Synthetic investigations in the field of curare alkaloids.
Part 10: Synthesis of dimethyl ethers ($\pm$)- tubocurarine
iodides. Izv.vys.ucheb.zav.;khim.i khim.tekh. 5 no.3:449-452
'62.
(MIRA 15:7)

1. Moskovskiy institut tonkoy khimicheskoy tekhnologii imeni
Lomonosova, kafedra khimii i tekhnologii tonkikh organicheskikh
soyedineniy.

(Tubocurarine)

MORYASHCHEV, A.K.; VORONIN, V.G.

Determination of the composition of certain ethereal oils
by a method of gas-liquid chromatography. Zhur. anal. khim.
18 no.3:401-405 Mr'63.
(MIRA 17:5)

1. Filial Vsesoyuznogo nauchno-issledovatel'skogo instituta
sinteticheskikh i natural'nykh dushistykh veshchestv, Kaluga.

VORONIN, V.G.; KULIKOVSKAYA, G.D.; MAGDA, L.D.

Substituted β-phenylethylamines. Zhur. org. khim. 1 no.4:
719-721 Ap '65.
(MIRA 18:11)

1. Kaluzhskiy filial Vsesoyuznogo nauchno-issledovatel'skogo
instituta sinteticheskikh i natural'nykh dushistykh veshchestv.

FROLOV, L.B.; KHROMOV, M.K.; VORONIN, V.G.

Using the electron torsion meter for determining the rolling
resistance of tires. Kauch. i rez. 24 no.9:34-38 '65.
(MIRA 18:10)

1. Nauchno-issledovatel'skiy institut shinnoy promyshlennosti.

L 32547-65   EWT(m)/EPF(c)/EWP(j)/EWP(c)   Po-4/Pr-4

ACCESSION NR: AP5011192

AUTHORS: Voronin, V. G.; Kultiovskaya, G. D.; Magin, L. D.

TITLE: Substituted beta-phenylethylamines

SOURCE: Zhurnal organicheskoy khimii, v. 1, no. 4, 1965, 659-661

TOPIC TAGS: substitution reaction, amine, organic synthesis, styrene

ABSTRACT: The authors studied the synthesis of beta-phenylethylamines from 2-hydroxy-3-anisaldehyde. This latter compound, in reacting with nitromethane in the presence of methylamine catalyst, is converted to omega-nitro-4-hydroxy-3-methoxy-styrene. The formation of nitrostyrene from ortho-vanillin takes place much more slowly than from vanillin. As with the benzyl correlative, the nitrostyrene changes to styrene during saponification. The reduction of nitro-styrene by amalgam and zinc powder in an alcohol-hydrogen chloride environment or hydrogenation of nitrostyrene over palladium black in acetic acid yields beta-phenylethylamine. The salt goes to chlorohydrate and elevated by treatment with the proper acid. Ortho-vanillin is changed by etherification ... ortho-vanillin, which is methylated ... anisaldehyde. ... reacted with nitromethane in an alkaline environment to ...

L 52547-65

ACCESSION NR: AP5011192

give nitrostyrene, from which beta-(5-bromo-2,3-dimethoxyphenyl)ethylamine is
obtained by reduction. Orig. art. has: 1 formula.

ASSOCIATION: Kalushskiy filial Vsesoyuznogo nauchno-issledovatel'skogo instituta
sintetichoskikh i natural'nykh dushistykh veshchestv (Kaluga Branch of the All-
Union Scientific Research Institute of Synthetic and Natural Perfumes)

SUBMITTED: 31Oct64   ENCL: 00   SUB CODE: OC, OC

NO REF SOV: 001   OTHER: 004

card 2/2

MALOV, R.V., kand.tekhn.nauk; VORONIN, V.G., inzh.

Decontaminating exhaust gases of the DT-20 tractor diesel engines.
Trakt. i sel'khozmash. no.2:15-17 F '65.

(MIRA 18:4)

1. Laboratoriya avtomobil'nykh neytralizatorov TSentral'nogo
nauchno-issledovatel'skogo i konstruktorskogo instituta toplivnoy
apparatury avtotraktornykh i statsionarnykh dvigateley.

BRATUS, I.N.; VORONIN, V.G.; BELOV, V.N.

Some variants of coumarin synthesis. Trudy VNIISNDV no.6:81-85
'63.
(MIRA 17:4)

VOROB'YEVA, G.V.; KIREYEV, Yu.A.; BRATUS, I.N.; VORONIN, V.G.

  Production of β -phenylethyl alcohol from styrene.   Trudy VNIISNDV
  no.6:48-50 '63.   (MIRA 17:4)

BRATUS, I.N.; FILATOVA, I.A.; VORONIN, V.G.; EELOV, V.N.

Improvement of the synthesis of salicylaldehyde.   Trudy VNIISNDV
no.6:45-48 '63.   (MIRA 17:4)

VORONIN, V.G., assistant

Structure of the working capital of flour mills, groats and
mixed feeds industries. Trudy MTIPP no.19:109-121 '62.

(MIRA 17:4)

VORONIN, V.G.; KHARITONOV, A.F.; Prinimala uchastiye ORLOVA, V.V.

Investigating the rigidity of single-stand hydraulic presses. Kuz.-
shtam. proizv. 5 no.12:16-19 D '63.   (MIRA 17:1)

1. Zaveduyushchaya izmeritel'noy laboratoriyey Orenburgskogo zavoda
"Gidropress" (for Orlova).

VORONIN, V.I., inzhener; ZARIN, S.A., inzhener; SARBUCHEV, A.A., inzhener.

Unattended NUS-3 amplifier station, fed by remote control. Vest.
aviazi 15 no.11:5-8 N '55.   (MLRA 9:2)
(Amplifiers, Electron) (Remote control)

VORONIN, V. I.

On the Asymptotic Solution of the Equations of the Laminar Boundary
Layer for a Plate

Using the equations of the stationary boundary layer for a plate
the author develops a function for flow around the plate and for the
temperature in terms of the distance along the plate and the current.
This leads to the nonhomogeneous equations of thermal conductivity,
whose solutions are presented with the aid of series of Bessel func-
tions. Using these asymptotic solutions, the author makes further in-
vestigations based on an assumption of temperature constancy along the
plate. (RZhMat, No. 8, 1955) Tr. Voronezhsk. Un-ta. Vol 33, 1954,
63-69.

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

Translation M-1264, 5 Oct 6

SOV/124-57-9-10458

Translation from: Referativnyy zhurnal, Mekhanika, 1957, Nr 9, p 82 (USSR)

AUTHORS: Voronin, V. I.

TITLE: On the Calculation of a Laminar Boundary Layer on Rotating Bodies
            in a Compressible Gas (O raschete laminarnogo pogranichnogo
            sloya na telakh vrasheniya v szhimayemom gaze)

PERIODICAL: Tr. Voronezhsk. un-ta, 1956, Vol 42, Nr 2, pp 11-12

ABSTRACT: The paper presents a generalization of the Loytsyanskiy-
            Dorodnitsyn method for the calculation of the laminar boundary
            layer in the case of rotating bodies with the assumption that the
            wall is thermally insulated.

                                                    Ye. I. Obroskova

Card 1/1

TOLKACHEV, O.N.; PROKHOROV, A.B.; VORONIN, V.G.; KRIVKO, L.N.; PREOBRAZHENSKIY,
N.A.

Synthetic studies of curare alkaloids. Part 7: Synthesis of
2-methoxy-4-(β-acylaminoethyl)-2'-alkoxy-5'-carbalklxymethyldiphenyl
esters.   Zhur.ob,khim. 31 no.5:1540-1545 My '61.   (MIRA 14:5)

1. Moskovskiy institut tonkoy khimicheskoy tekhnologii imeni M.V.
Lomonosova.
                (Alkaloids)   (Acetic acid)

VORONIN, V.I.

Gas pressure regulators and welded regulating stations. Gaz, prom.
no.3:19-24 Mr '57.   (MIRA 12:3)
                    (Pressure regulators)

VORONIN, V.I.

   Operation and repair of gas meters. Gaz. prom. no.6:36-38 Je '58.
                  (Gas meters)   (MIRA 11:6)

VORONIN, V.I.

Analysis of the design of reducers for liquefied gases. Gaz. prom.
no.8:27-30 Ag '58.   (MIRA 11:8)
           (Gases, Compressed)

L 11340-67   EWT(d)/EWT(m)/EWP(k)/EWP(h)/EWP(w)/EWP(v)   EM/FDH

SOURCE CODE: UR/0413/66/000/015/0147/0147

ACC NR: AP6029961   30

INVENTOR: Voronin, V. I.

ORG: none

TITLE: A device for jacking aircraft landing gear. Class 62, No. 184632

SOURCE: Izobret prom obraz tov zn, no. 15, 1966, 147

TOPIC TAGS: AIRCRAFT landing gear, jack, HYDRAULIC EQUIPMENT, AIRCRAFT MAINTENANCE EQUIPMENT

ABSTRACT: This Author Certificate introduces a device for jacking aircraft landing gear when replacing wheels. It is designed as a hydraulic jack consisting of a cylinder, piston, and a rod. Improvements have been made in order to eliminate the bending moments of the rod and to decrease the overall weight. Two sidepieces are hinged to the cylinder and linked to the landing gear, and the rod has a joint hinged to the supporting plate. Orig. art. has: 1 figure.

SUB CODE: 01, 13/ SUBM DATE: 29Aug63/

UDC: 629.139

Card 1/1

PIROGOV, A.A.; LEVE, Ye.N.; KRASS, Ya.R.; VORONIN, V.I.; TKACHENKO, A.A.;
BULATNIKOV, Ye.A.; FREYDIN, L.M.; KOSINSKIY, V.F.

Testing carbon blocks in iron tapping troughs in blast furnaces.
Ogneupory 28 no.8:368-370 '63.   (MIRA 16 :9)

1. Ukrainskiy nauchno-issledovatel'skiy institut ogneuporov (for
Pirogov, Leve, Krass). 2. Kommunarskiy metallurgicheskiy zavod
(for Voronin, Tkachenko, Bulatnikov, Freydin, Kosinskiy).

L 4009-66   EWT(d)/EWP(v)/EWP(k)/EWP(h)/EWP(1)
ACCESSION NR: AP5024416   UR/0286/65/000/015/0097/0097

AUTHORS: Voronov, Yu. I.; Voronin, V. K.

TITLE: Ultrasonic pyrometer. Class 42, No. 173459

SOURCE: Byulleten' izobreteniy i tovarnykh znakov, no. 15, 1965, 97

TOPIC TAGS: pyrometer, ultrasonic equipment, air temperature

ABSTRACT: This Author Certificate presents an ultrasonic pyrometer for continuous measurement of the temperature of air currents by measuring the transit time of ultrasonic pulses passing through the current between radiation generator and receiver placed in a water-cooled case. To eliminate errors caused by temperature oscillations of the air layers adjacent to the water-cooled surfaces, two identical receivers are placed in the measured current (see Fig. 1 in the Enclosure). The pulse transit time between the receivers characterizes the current temperature. Orig. art. has: 1 diagram.

ASSOCIATION: Tsentral'naya laboratoriya avtomatiki gosudarstvennogo komiteta po chernoy i tsvetnoy metallurgii pri gosplane SSSR (Central Automation Laboratory of the State Committee for Ferrous and Nonferrous Metallurgy of Gosplan, SSSR)

Card 1/3   UDC: 536.52:534-8

L 4009-66
ACCESSION NR: AP5024416   O

SUBMITTED: 22Aug64   ENCL: 01   SUB CODE: IE, TD

NO REF SOV: 000   OTHER: 000

Card 2/3

L 4009-66
ACCESSION NR: AP5024416   ENCLOSURE: 01

Fig. 1. 1 and 2- water-cooled surface;
3 and 4- radiation receivers; 5- radiation
generator

Card 3/3

L 09123-67   EWT(m)/EWP(f)   FDN/WW/DJ/WE

ACC NR: AP6031769   (A)   SOURCE CODE: UR/0094/66/000/007/0048/0050

AUTHOR: Omel'chenko, V. I. (Engineer); Krasnikov, A. S. (Engineer); Voronin, V. L. (Engineer); Konstantinovskiy, V. A. (Engineer); Uvarov, S. N. (Candidate of technical sciences)

ORG: None

TITLE: Industrial electric power generators using aviation turbine engines

SOURCE: Promyshlennaya energetika, no. 7, 1966, 48-50

TOPIC TAGS: electric power engineering, electric power plant, turboprop engine

ABSTRACT: The authors discuss the advantages of using discarded aviation turbine engines for generating power in industrial plants, transport and in various branches of the petroleum industry. Units using aviation turbine engines could be made for various power requirements varying from several hundred to several thousand kilowatt output. The authors describe a successful attempt to set up such a unit in the Soviet Union in 1965. This unit utilized an AI-20 turboprop engine in conjunction with an SGN-14-49-6 1000 kw synchronous generator. This generating plant was equipped with an automatic control which ensured its starting, controlled its fuel and oil supply and handled emergencies. The AI-20 turboprop engine is capable of running on various fuels. It was found that it could be operated on diesel fuel and natural gas if the natural gas

UDC: 621.311.23+629.13.02/.07

Card 1/2

L 09123-67

ACC NR: AP6031769   4/

was compressed to 10 atm. The lubrication mixture used for operating this engine con-
sisted of 75% transformer oil or MK-8 and 25% MS-20 or MK-22 oil.// The engine consumed
0.8 liters of oil per hour. Since a 1600 kilowatt generator could not be found, the
engine was set to function at 50% capacity. The weight to power ratio of this unit was
12.3. The unit functioned normally throughout the test period. One of the advantages
of using such a unit is that it does not require water for cooling and the exhaust
gases of the turbine can be used for heating purposes. Orig. art. has: 4 figures.

SUB CODE: 10, 13 / SUBM DATE: None

Card 2/2 nat

ACCESSION NO

SUBJECT AREA

THIRD TAGS   gear shift, stepped transmission

Card   2/3

L 64279-65

rod, and the slide distributor may swivel, and positioned on the
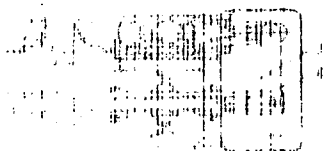power-cylinder shaft's axis. Orig. art. has: 1 figure.

Fig. ... gear-shift mechanism

1 - Manual gear-shift lever; 2 - pneumatic power cylinder; 3 - hollow shaft; 4 - piston; 5 - slide distributor;

Card 3/3

SUDZILOVSKIY, G.A., dotsent, kand.filolog.nauk, podpolkovnik zapasa;
BOGDANOVA, K.N.; BURYAKOV, Iu.F.; VORONIN, V.P.; SERGEYEV, O.N.;
TUROV, A.A.; BORISOV, V.V., red.; MARCHENKO, V.G., red.;
SAVIN, B.V., red.-leksikograf; YEFREMOVA, M.K., red.-leksikograf;
KUZ'MIN, I.F., tekhn.red.

[English-Russian military dictionary] Anglo-russkii voennyi
slovar'. Sost. Sudzilovskii, G.A., i dr..Pod obshchei red.
Sudzilovskogo, G.A. Okolo 50000 terminov. Moskva, Voen.izd-vo
M-va obor.SSSR, 1960. 965 p.   (MIRA 13:10)
      (English language--Dictionaries--Russian)
          (Military art and science--Dictionaries)

AVDEYEV, Yu.G.; VORONIN, V.S.; KOROSTYLEV, N.P.; SMIRNOV, V.G.;
PUSTOVALOV, A.I.; CHEBOTYREV, B.A.; ZENKOV, B.N.; KARABACH, T.L.

Determining the efficiency of various ways of charging boreholes
along the contour of a mine working. Shakht. stroi. 8 no.10:
19-21 O '64.   (MIRA 17:12)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut tsvetnoy
metallurgii (for Avdeyev, Voronin, Korostylev, Smirnov).
2. Rudnik imeni XXII s"yezda Kommunisticheskoy partii Sovetskogo
Soyuza Zyryanovskogo kombinata (for Pustovalov, Chebotyrev,
Zenkov, Karabach).

L 00073-66   EWT(1)/EPA(s)-2/ETC/EWG(m)/EWA(h)   TT/AT
ACCESSION NR: AP5021351   UR/0120/65/000/004/0148/0152
                                           621.316.722.1

AUTHOR: Voronin, V. S.; Semenov, S. S.

TITLE: Stabilization of DC generator voltages

SOURCE: Pribory i tekhnika eksperimenta, no. 4, 1965, 148-152

TOPIC TAGS: electric generator, voltage stabilization, voltage stabilizer,
direct current, current stabilization

ABSTRACT: The peculiarities of the magnetic field of the annular synchrocyclotron
(its high inhomogeneity and strict accuracy requirements) led to the development
of a new type of magnetic system containing distributed excitation windings.
An essential feature of this new solution is the almost complete transfer of the
accuracy requirements imposed on the currents within the electromagnet coils to
the pulsation and instability of the power supply voltage within a large band of
audio frequencies. This is caused by the low inductance of the distributed
windings. This inductance becomes even sharply smaller with the increase in
frequency than is the case in the standard constant electromagnets. The present
authors describe the voltage stabilization circuit of two P-101 DC generators

Card 1/2

L 00073-66
ACCESSION NR: AP5021351

(65 kW, 230 V, 232 A) driven by a synchronous motor. The accuracy is $3 \cdot 10^{-4}$.
The stabilization and oscillation damping of the output voltage is carried out
by two groups of 6S19S regulator tubes connected in parallel with the excitation
windings of the generator and parallel to the load. The calculation of the
system is carried out by inspection of the Bodet logarithmic frequency charac-
teristics and of the terminal phase characteristics. The introduction of the
new stabilization scheme allows, at low equipment cost, the use of DC generators
as sources of highly stabilized currents or voltages. Orig. art. has: 6
formulas and 5 figures.

ASSOCIATION: Fizicheskiy irstitut AN SSSR, Moscow (Physics Institute, AN SSSR)

SUBMITTED: 16Nov64   ENCL: 00   SUB CODE: EE

NO REF SOV: 002   OTHER: 000

Card 2/2

L 4897-66

ACC NR: AP5027021   SOURCE CODE: UR/0120/65/000/005/0113/0115

AUTHORS: Voronin, V. S.; Semenov, S. S.

ORG: Physics Institute, AN SSSR, Moscow (Fizicheskiy institut, AN SSSR)

TITLE: Wideband d-c amplifier with small zero drift

SOURCE: Pribory i tekhnika eksperimenta, no. 5, 1965, 113-115

TOPIC TAGS: dc amplifier, amplifier design

ABSTRACT: The circuit and operation of a wideband d-c amplifier with small
zero drift are described. The gain of the amplifier is 5×10^4; the
frequency band is 0 to 20 kc, the maximum output voltage is ±30 v, and the zero
drift at the input is ±50 µv. Parallel operation of a wideband dc amplifier and
a narrowband dc amplifier with conversion is used. The amplifier utilizes extreme
negative feedback for stability of operation and coupling of overlapping narrow
and wideband frequency characteristics. The amplifier has been used in an ex-
citation coil supply system of a ring phasotron electromagnet. Orig. art. has:
9 formulas and 3 figures.   [04]

Card 1/2

UDC: 621. 375

L 4897-66

ACC NR: AP5027021

SUB CODE: EC/   SUBM DATE: 26Dec64/   ORIG REF: 001/   ATD PRESS: 4135

Card 2/2

VORONIN, V.S., inzh.

Sprayed concrete supports in the Tekeli Mine. Shakht. stroi. 7
no.10:13-16 O '63.   (MIRA 16:10)

1. Vsesoyuznyy nauchno-issledovatel'skiy gorno-metallurgicheskiy
institut tsvetnykh metallov.

MINDELI, E.O., kand.tekhn.nauk; KUSOV, N.F., kand.tekhn.nauk; ODNOFOZOV,
Z.A., gornyy inzhener; RABICHEV, A.R., gornyy inzhener; MAMONOV, V.V.,
gornyy inzhener; GROZIN, V.M., gornyy inzhener; OSNOVSKIY, P.V.,
gornyy inzhener; VORONIN, V.S., inzhener-shakhtostroitel';
MUKHIN, L.V., gornyy inzhener
Discussion on N.V. Stadnichenko, V.T. Nazarov's article
"Advantageous diameter size for boreholes." Ugol' 35 no. 4:31-35
Ap '60.
(MIRA 14:4)

1. Kombinat Rostovugol' (for Rabichev, Mamonov & Grozin). 2.
Rostovskiy sovnarkhoz (for Osnovskiy & Voronin).
(Blasting) (Boring) (Stadnichenko, N.V.) (Nazarov, V.T.)

VORONIN, V.S., inzh.

Character stics of the performance of a gunite lining. Izv.vys.ucheb.
zav.;gor.zhur. 7 no.9:35-39 '64.
(MIRA 18:1)

1. Vsesoyuznyy nauchno-issledovatel'skiy gorno-metallurgicheskiy
institut tsvetnykh metallov.

VORONIN, V.S.; KOLOMENSKIY, A.A.

Pressure of an intense plane wave on a free charge and on a charge in a magnetic field. Zhur. eksp. i teor. fiz. 47 no.4: 1528-1535 O '64.
(MIRA 18:1)

1. Fizicheskiy institut imeni P.N. Lebedeva AN SSSR.

VORONIN, V.S., inzh.

All-Union school for learning how to use new types of supports.
Shakht.stroi. 8 no.12:26-28 D '64.   (MIRA 18:1)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut tsvetnoy metallurgii.

L 20713-66

ACC NR: AP6007827   SOURCE CODE: UR/0120/66/000/001/0143/0146

AUTHOR: Voronin, V. S.; Kanunnikov, V. N.

ORG: Institute of Physics, AN SSSR (fizicheskiy institut AN SSSR)

TITLE: Multichannel current stabilizer

SOURCE: Pribory i tekhnika eksperimenta, no. 1, 1966, 143-146

TOPIC TAGS: current stabilization, synchrotron

ABSTRACT: A new multichannel current stabilizer is intended for supplying five
windings (270, 11, 1.1, 10, 0.1 amp) of a strong-focusing ring-type synchrotron
(FIAN). One common source — a self-excited d-c generator — is used for supplying
all five channels; the shunt-field rheostat is replaced with a transistor. At low
voltages the transistor resistance is very low, and the field circuit is practically
shorted. As the current flowing through the transistor increases, its differential
resistance, too, increases; the field current becomes independent of the generator
voltage. By using a control current equal to a few per cent field current, the
generator voltage can be regulated within its entire range, from its residual-field

Card 1/2

UDC: 621.316.721.1.024

L 20713-66

ACC NR: AP6007827   0

value to its nominal value. On the above principle, a stabilizer with a PN-290, shunt-wound, 115-v, 287-amp, d-c generator was built and tested. Current-regulation in each channel, 10—120%; stabilization power 10 kw; stabilizer consumption, 60 w; a current stability of ± 0.05% was attained by using direct-coupled Si-transistor amplifiers and temperature compensation. "In conclusion, the authors wish to thank A. A. Kolomenskiy for his help in carrying out the project, and N. S. Shilkin for his participation in building the device." Orig. art. has: [03]
3 figures.

SUB CODE: 18, 09 / SUBM DATE: 24Dec64 / ORIG REF: 002 / OTH REF: 002

ATD PRESS: 4223

Card 2/2 BK

VORONIN, V.S., gornyy inzh.; KORSHUNOV, A.A., gornyy inzh.; DAURENBEKOV, A.K.,
gornyy inzh.; NAURYZBAYEV, V.A., gornyy inzh.

Testing and introduction of the use of gunite supports in soft
rock at the Tekeli Mine. Gor.zhur. no.1:41-43 Ja '65.

(MIRA 18:3)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut tsvetnoy
metallurgii (for Voronin, Korshunov). 2. Tekeliyskiy kombinat
(for Daurenbekov, Nauryzbayev).

VORONIN, V.S.; SHILKIN, P.I.

Testing and introduction of gunite reinforcements in haulage drifts.
Gor. zhur. no.7:26-30 Jl '64.   (MIRA 17:10)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut tsvetnoy metallurgii,
Ust'-Kamenogorsk.

NOVIKOV, Grigoriy Andreyevich; VORONIN, V.S., red.

[Manual for the foreman of a road repair brigade]
Posobie brigadiru dorozhno-remontnoi brigady. Moskva,
Transport, 1964. 125 p.   (MIRA 17:7)

L 11930-65   EWT(l)   BSD/ASD( ) ../APGC/SSD/AEDC(a)/ASD(p)-3/AFWL

ACCESSION NR: AP4047920   S/0056/64/047/004/1528/15

AUTHORS: Voronin, V. S.; Kolomenskiy, A. A.

TITLE: Pressure of an intense plane wave on a free charge and on a charge in a magnetic field

SOURCE: Zhurnal eksperimental'noy i teoreticheskoy fiziki, v. 47, no. 4, 1964, 1528-15

TOPIC TAGS: charged particle, interacting particle motion, radiation pressure, particle wave interaction

ABSTRACT: The authors obtain a complete solution of the problem of a free charged particle moving in the field of a plane wave of large intensity made up of a set of monochromatic waves of arbitrary polarization. The problem of the motion of a charge in the field of a monochromatic plane wave of arbitrary polarization together with a constant uniform magnetic field is also solved, with the radiation

Card   1/3

L 14830-65
ACCESSION NR: AP4047920

reaction force taken into account. General formulas are obtained
for the radiation pressure on a free charge and in a charge moving
in the magnetic field, of which the Thomson light formula is a
special case. No restrictions are imposed on the intensity or wave-
length of the electromagnetic wave, and the results can be used to
study the interactions between waves and charges of a wide
variety of particles, amplitudes and general
tion of waves interaction of radio waves with particles of the
earth's magnetic field or an interstellar magnetic fields, etc. A
separate formula is derived for the pressure of a monochromatic plane
wave of a particular particulars are dwells
on the limitations imposed on the effective mass of the interaction
reaction between a wave and a particle in a magnetic field brought
about by taking radiation reaction into account. Orig. art. has:
35 formulas.

ASSOCIATION: Fizicheskiy institut im. P. N. Lebedeva, Akademii nauk

Card   2/3

L 14830-65

ACCESSION NR: AP4047920

SSSR (Physics Institute, Academy of Sciences SSSR)

SUBMITTED: 23Apr64

ENCL: 00

SUB CODE: NP

NR REF SOV: 003

OTHER: 001

Card   3/3

VORONIN, V.S.; SEMENOV, S.S.

Wide-band d.c. amplifier with small zero drift. Prib. i tekh.
eksp. 10 no.5:113-115 S-O '65.

(MIRA 19:1)

1. Fizicheskiy institut AN SSSR, Moskva. Submitted Dec.28,
1964.

ACCESSION NR: AP5011007

AUTHOR: Voronin, V. S.; Kasumanikov, V. K.

TITLE   High-speed transistor and magnetometer

SOURCE: ... no. 2, 1965, 150-153

TOPIC TAGS   magnetometer, transistorized magnetometer, high speed magnetometer

ABSTRACT A magnetometer utilizing a closed ferrite-core sensor, developed at the ... IEDP, is described. The device is used for ...

... signal generated with good filter discrimination of the ... amplified and transmitted to a phase detector. The reference voltage for the detector is obtained by doubling the oscillator frequency, with the required phase fixed by a phase shifter. The phase-detector signal controls a d-c amplifier ... the current in the balancing solenoid. Thanks to the high gain of the negative feedback loop, the solenoid current is proportional to ... ity of the measured field. The core of the sensor is 2 cm in diameter

Card   1/3

L 48331-65

ACCESSION NR: AP5011889

and about 5 mm in height. The toroidal excitation winding consists of 50 turns, 0.1 mm in diameter, with an amplitude of 0.4 amp at 16.5 cps. The ferrite core is located inside the signal winding coil. The solenoid consists of two cores whose total magnetic moment is zero. The sensor is connected to the rest of the winding by a flexible shielded cable. The magnetometer can continuously measure a permanent magnetic field in the range of 0—80 ga with an accuracy of ±0.01 ga. The response time of the device is 10^-3 sec. Its output, proportional to the field intensity, is a 0—220-mamp direct current. Orig. art. has: 4 figures and 1 table.

[DW]

ASSOCIATION: none

SUBMITTED: 18Feb64   ENCL: 01   SUB CODE: EC, ES

NO REF SOV: 004   OTHER: 001   ATD PRESS: 3250
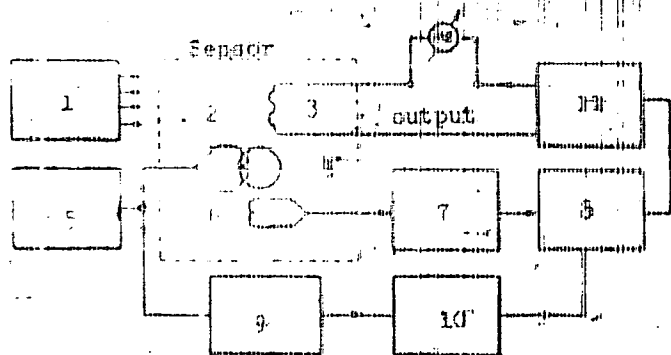
Card 2/3

L 48333-65
ACCESSION NR: AP5011889

Fig. 1. Magnetometer

1 - Power supply; 2 - excitation winding; 3 - solenoid;
4 - core; 5 - signal generator; 6 - signal winding;
7 - amplifier of second harmonic; 8 - phase detector;

Card 3/3

DAVYDOV, V.I., dotsent; VORONIN, V.S.

Stillbirth and early mortality of infants by coiling of the umbilical cord. Kaz. med. zhur. no.5:62-63 S-0'63
(MIRA 16:12)

1. Sverdlovskiy rodil'nyy dom Ural'skogo zavoda tyazhelogo mashinostroyeniya (glavnyy vrach - M.S. Balaganova, nauchnyy rukovoditel' - dotsent V.I. Davydov).

BOLOTOVSKIY, B. M.; VORONIN, V. S.

Energy losses of electric and magnetic charges in ferrodielectrics.
Izv. vys. ucheb. zav.; radiofiz. 5 no.5:1033-1035 '62.
(MIRA 15:10)

1. Fizicheskiy institut imeni P. N. Lebedeva AN SSSR.

(Dielectric loss)

VORONIN, V.S.; KRAKHIN, N.S.; SHILKIN, P.I.; PUSTOVALOV, A.I.

Supports with a sprayed concrete foundation. Gor. zhur.
no.1:17-22 Ja '62.   (MIRA 15:7)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut tsvetnykh
metallov, g. Ust'-Kamenogorsk (for Voronin, Krakhin, Shilkin).
2. Maslyanskiy rudnik (for Pustovalov).
              (Mine timbering)   (Concrete)

VORONIN, V.S.; IVANOV, V.A.

Economic value of sprayed concrete supports. Gor. zhur. no.9:
20-21 S '62.
(MIRA 15:9)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut tsvetnykh
metallov, g. Ust'-Kamenogorsk.
(Mine timbering) (Grouting)

DAVYLOV, V.I., dotsent; VORONIN, V.S.

Pregnancy and labor in dwarfs. Kaz.med.zhur. no.4:46-47 Jl-Ag '62.
(MIRA 15:8)

1. Kafedra akusherstva i ginekologii (ispolnyayushchiy obyazannosti
zaveduyushchego - dotsent V.I.Davydov) Sverdlovskogo meditsinskogo
instituta.
(PREGNANCY, COMPLICATIONS OF) (LABOR, COMPLICATED) (DWARFS)

VORONIN, V.S., inzh.

Selection of efficient types of supports. Shakht, stroi. 6
no.10:3-5 O '62.   (MIRA 15:9)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut tsvetnykh
metallov.
                              (Mine timbering)

VORONIN, V.S., inzh.

Selection of efficient types of supports. Shakht. stroi. 6
no.10:3-5 O '62.   (MIRA 15:9)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut tsvetnykh
metallov.
(Mine timbering)

VORONIN, V.S., inzh.; IVANOV, V.A., inzh.

Potentialities for lowering mining costs. Shakht.stroi. 8 no.3:
14-15 Mr '64.   (MIRA 17:3)

1. Vsesoyuznyy nauchno-issledovatel'skiy gornometallurgicheskiy in-
stitut tsvetnykh metallov.

43403

AUTHORS: Bolotovskiy, B.M., and Voronin, V.S.

TITLE: On energy losses of electric and magnetic charges in
            ferroelectrics

PERIODICAL: Izvestiya vysshikh uchebnykh zavedeniy, Radiofizika,
            v.5, no.5, 1962, 1033-1035

TEXT: The authors take issue with D. Ivanenko and
V.N. Tsytovich (ZhETF, v.28, 1955, 291) and S. Hayakawa and
K. Kitao (Progr. Theor. Phys., v.16, 1956, 131) concerning the
existence of energy losses of charged particles moving in ferro-
electrics, at frequencies at which magnetic resonances occur,
other than Cherenkov and polarisation radiation. Using a straight-
forward derivation from the Poynting vector, it is shown that the
approximate equation used in the above quoted papers

$$W_b = \frac{q^2}{\pi v^2} \, \text{Re} \int_0^\infty i \, \omega \, d\omega \left(\frac{1}{\varepsilon} - \mu\beta^2 \right) \ln \frac{4}{3.17\zeta^2 b} \qquad (3)$$

derived on the assumption

Card 1/2

On energy losses of electric and ...   S/141/62/005/005/013/016
                                        E140/E135

$$\left| b \frac{\omega}{v} \sqrt{1 - \varepsilon\mu\beta^2} \right| \ll 1 \qquad\qquad (2)$$

is not valid at frequencies for which magnetic resonance occurs.
Analysis of the exact solution for this case, shows that the
radiation is independent of μ. Similarly, were magnetic charge to
exist, it would not be subject to polarisation radiation at
frequencies for which dielectric resonance occurs. This explains
the failure of E. Amaldi et al. (Notas de Fisica, v.8, 15) to
detect the magnetic charge from polarisation losses, hypothesized
by Dirac.
ASSOCIATION: Fizicheskiy institut im. P.N. Lebedeva AN SSSR
             (Physics Institute imeni P.N. Lebedev, AS USSR)

SUBMITTED: May 23, 1962

Card 2/2

VORONIN, V.S.

Efficiehcy of the introduction of sprayed concrete lining. Biul.
tekh.-ekon. inform. Gos. nauch.-issl. inst. nauch. i tekh. inform.
17 no.6:10-13 Je '64.
(MIRA 17:11)

VORONIN, V.V., inzh.

Grapplers for installers of communication lines. Transp. stroi.
9 no.11:56 N '59   (MIRA 13:3)
        (Electric lines--Equipment and supplies)

BLINOV, N.O.; VORONIN, V.V.; OROYEV, I.I.; KHOKHLOV, A.S.

Automatic camera for chromatography on paper. Lab.delo 9
no.3:58-59 Mr '63.   (MIRA 16:4)

1. Institut khimii prirodnykh soyedineniy AMN SSSR.
                  (PAPER CHROMATOGRAPHY)

ACCESSION NR: AR4031090   S/0044/64/000/002/V064/V064

SOURCE:. Referativny*y zhurnal. Matematika, Abs. 2V450

AUTHOR: Voronin, V. V.

TITLE: The application of Pirson curves to statistical data processing in biology

CITED SOURCE: Tr. In-ta fiziol. AN GruzSSR, v. 13, 1963, 237-248

TOPIC TAGS: Pirson curve, biology statistical data processing, differential equation, normalization condition, distribution curve

TRANSLATION: Pirson curves are obtained as solutions to the differential equation

$$d \log y/dx = -x/(C_1 + C_2 x + C_3 x^2),$$

which satisfy normalization conditions; with various relations between the parameters C_1, C_2, C_3, different types and subtypes of curves are obtained. The parameters C_1, C_2, and C_3 are connected with the parameters a_1, a_2, and ν, used

Card 1/2

ACCESSION NR: AR4031090

in the usual notation for the curves, by means of the relations

$$C_1 = a_1 a_2 / v(a_1 + a_2), \quad C_2 = (a_2 - a_1)/v(a_1 + a_2).$$
$$C_3 = -1/v(a_1 + a_2).$$

The author considers certain properties of Pirson curves, and indicates certain ideas used by Pirson in constructing his curves. Arguing against Yastremskiy (see L. Ya. Boyarskiy, Starovskiy, Khotimskiy, B. S. Yastremskiy - The theory of mathematical statistics, M. Plankhozgiz, 1930), the author shows in a numerical example that "Pirson curves give excellent statistical distribution curves, and the necessary calculations for this are not very difficult" A. Yaslavskiy

DATE ACQ: 19Mar64　　　　　SUB CODE: AM, MM　　　　　ENCL: 00

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