VOLOSHINA, A.M.

Presence of upper Cretaceous deposits in borehole profiles in the Carpathian piedmont fault. Geol.sber.[Lvov] no.2/3:323-324 '56.

(MIRA 10:3)

1. Institut geologii poleznykh iskopayemykh AN USSR, L'vov.
   (Carpathian Mountain region--Geology, Stratigraphic)

VOLOSHINA, A. M.

"Foraminifera of the Upper Cretaceous of the Volyno-Podol Slab and Their Significance in Stratigraphy." Cand Geol-Min Sci, L'vov U, L'vov, 1954. (RZhGeol, Dec 54)

Survey of Scientific and Technical Dissertations Defended at USSR Higher Educational Institutions (12)
SO: Sum. No. 556 24 Jun 55

VOLOSHINA, A.P.

Some characteristics of the microclimate in the middle Angara
Valley. Vest. Mosk. un. Ser. biol., pochv., geol., geog. 13
no. 1:221-230 '58.

(MIRA 11:7)

1. Moskovskiy gosudarstvennyy universitet, Kafedra klimatologii.
(Angara Valley--Climate)

ZIL'BERMINTS, Lyudmila Veniaminovna; VOLOSHINA, D.A., red. [deceased];
MEYEVA, N.Ya., red.; VENETSIANOVA, Ye.S., bibliograf.red.;
KRYUCHKOVSKIY, S.A., bibliograf.red.

[Bibliography of Soviet technical bibliography, 1917-1959]
Bibliografiia sovetskoi tekhnicheskoi bibliografii 1917-1959.
Pod red. D.A.Voloshina i N.IA.Zmoevoi. Leningrad, M-vo
kul'tury RSFSR. Gos.publichnaia biblioteka im. M.E.Saltykova-
Snchedrina, 1959. 505 p.   (MIRA 13:1)
               (Bibliography--Technology)

VOLOSHINA, I. Ya.

USSR/Medicine - Diseases, Internal -   Feb 49
     Organs
Medicine - Cholinesterase

"Cholinesterase in the Blood of Hepatopaths," Prof B. S. Shklyar, Dir, Chair of Propaedeutics of Internal Diseases, I. Ya. Voloshina, Chair of Normal Physiol, Vinnitsa Med Inst, 5 pp

"Klin Med" Vol XXVII, No 2

A substantial decrease of cholinesterase in the blood is observed in cases with hepatosis. Determination of cholinesterase in the blood may be a method for functional study of the liver. Cholinesterase content returns to normal faster,   58/49169

USSR/Medicine - Diseases, Internal   Feb 49
     Organs (Contd)

with an improvement in the hepatic condition, than do other hepatic functional indexes.

58/49169

AUTHORS: Voloshina, L.A. and Rozenberg, V.M.

TITLE: Investigation into the creep of aluminium bi-crystals

TEXT: The generally accepted view that the relative movement of
crystals plays an important part in deformation during creep is
based partly on the fact that grains stand up in relief on a
preliminarily polished surface of a specimen tested in creep.
However, it can be postulated that this effect is caused not by
crystal boundary sliding but by the fact that the adjacent crystals
are deformed in a different manner. The most convenient way of
checking this theory is to conduct creep tests on specimens on which
the behaviour of any given grain boundary can be easily studied,
bi-crystal specimens being most suitable for this purpose. The
effect of temperature, applied stress and degree of misorientation
between grains on the rate of creep and degree of deformation of
bi-crystals has been studied by several workers. The object of the
present investigation was to measure the elongation of various parts
Card 1/7

Investigation into the creep ...   S/126/61/012/001/014/020
                                    E193/E480
25922

of an aluminium bi-crystal test piece with a particular reference
to the grain-boundary regions and to study the microstructure of
these regions.   The bi-crystal specimens were prepared from
AB000 (AV000) grade aluminium by the usual method of annealing the
lightly deformed metal.   The creep test pieces (with the parallel
portion measuring 25 x 5 x 3 mm) were cut from the blanks in such a
way that the bi-crystal boundary was inclined at 45° to the test
piece axis.   The test pieces were annealed at 600°C and
electrolytically polished, after which a set of thin scratches was
inscribed with an aluminium alloy scriber on the polished surface.
All creep tests were carried out at 300°C under an initial stress
of 0.2 kg/mm^2.   Each test was periodically interrupted and,
after cooling the test piece to room temperature, the total
elongation of the gauge length, the elongation of each crystal and
the displacement of the scratches intersecting the grain-boundary
were measured.   Metallographic and X-ray diffraction analyses of
the specimens were also carried out.   Typical results are
reproduced in Fig.1, where the relative elongation (%) is plotted
against time (hours);   this graph was constructed for a test piece
whose stereographic projection is illustrated in Fig.2, where
Card 2/7

Investigation into the creep ...   S/126/61/012/001/014/020
25922   E193/E480

continuous and broken lines relate to the first and second
crystals respectively;   the plane of projection corresponds to the
specimen surface, the point in the centre of the projection
representing normal to the specimen surface;   the arrow indicates
the direction of applied stress.   The gauge length of the specimen
was divided into 5 parts in the way shown in the insert in Fig.1.
Curve 1 in Fig.1 relates to the entire gauge length (i.e. to the
part of the test piece bounded by points 1 to 6) while curves 2, 3,
4, 5 and 6 relate to parts bounded by points 1-2, 2-3, 3-4, 4-5 and
5-6 respectively.   It will be seen that the rate of creep varied
considerably from one part of the test piece to another.   It is
particularly significant that the rate of creep of the part
containing the grain-boundary, i.e. the part bounded by points 3 -
4 (curve 4), was slower than that of the adjacent parts, bounded by
points 2-3 and 4-5 (curves 3 and 5 respectively).   Owing to the
difference in the orientation, the rate of creep of any part
belonging to the crystal bounded by points 1-3 was slower than the
rate of creep of any part of the crystal bounded by points 4-6.
The results of other measurements are best summarized by referring
to Fig.3. which shows diagrammatically the bi-crystal (a) before
Card 3/7

Investigation into the creep ...   S/126/61/012/001/014/020
25922   E193/E480

and (b) after deformation; the symbol l in Fig.3β denotes the
grain-boundary displacement and $x = l \cos \alpha$ is the component of
l resolved in the direction of applied stress.   It will be seen
from Fig.4, where $x(\mu)$ is plotted against the strain $\Delta\varepsilon_{3-4}(\mu)$
of the part of the test piece bounded by points 3-4, that x is
by one order of magnitude smaller than $\Delta\varepsilon_{3-4}$ and that there is a
definite (linear) relationship between these two parameters.   By
the process of elimination of the possible explanations of these
facts, the present authors showed that the observed displacement of
the grains is a result of the deformation of the grains in the grain-
boundary region and not vice versa.   This conclusion was supported
by the results of the next series of measurements, whose results
are reproduced in Fig.6, where the vertical component of l ,
that is the height μ of the step formed by the grain-boundary
displacement, is plotted against time (hours), blocks 1 - 7 showing
the magnitude of this component at various points along the grain-
boundary, as marked on the insert in Fig.6.   It will be seen that
not only the height of the step varies along the grain-boundary
but that there is a point at which the grain-boundary displacement
throughout the duration of the creep test remains smaller than at
Card 4/7

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Investigation into the creep ...   E193/E48Q ...

any other point;   in addition, the height of the step at certain
points of the grain-boundary decreases with time (see point 3 after
14 hours, point 5 after 40 hours, etc).   These results,
correlated with the results of metallographic and X-ray analysis,
show conclusively that the formation of steps at 'the grain-boundary
during creep is not caused by grain-boundary sliding (relative
movement of the adjacent grains) but is mainly a result of the
difference in the degree of deformation of the crystals in the
regions adjacent to the grain-boundary.   Acknowledgments are made
to the student I.B.Finkel'shteyn who participated in this work.
There are 8 figures, 1 table and 8 references: 3 Soviet and
5 non-Soviet.   The four most recent references to English language
publications read as follows: McLean D., Farmer M.H. J.Inst.
Metals, 1956, October;   Tung S.K., Maddin R. J.Metals, 1957; 9,
No.7, Sec., 2, 905;   Rhines F.N., Borud W.E., Kissel M.A.
Trans. ASM, 1956, 48, 919;   Intrater J., Machlin E.S.   J.Inst.
Metals, 1960, 88, No.7, 305.

ASSOCIATION: Institut metallovedeniya i fiziki metallov TsNIIChM
             (Institute of Metal Science and Physics of Metals
SUBMITTED: September 9, 1960   ,   \ .   TsNIIChM)   ,
Card 5/7

10 7300   also 1413   26561   S/126/61/012/002/011/019
                                        E021/E480

AUTHORS: Voloshina, L.A., Rozenberg, V.M. and Finkel'shteyn, I.B.

TITLE: The connection between boundary migration and
             deformation in the boundary zones during the creep of
             metals

PERIODICAL: Fizika metallov i metallovedeniye, 1961, Vol.12, No.2,
            pp.265-268

TEXT: Experiments were carried out on bicrystals of aluminium.
The boundary between the crystals was at 45° to the strain axis
of the sample.   A stress of 200 g/mm^2 and a temperature of 300°C
were used.   Lines intersecting the grain boundary were drawn on
the electropolished surface before test.   During the creep test,
the relative displacement of the lines (in the plane of
observation) was measured by an interference microscope.   Fig.2
shows (in microns) the relative displacement of the grains (circles)
and the migration of the boundary (triangles) against time (in hours).
Fig.3 shows a microphotograph of the bicrystal taken on the
interference microscope (x280) and Fig.4 the profile of the same
sample at the grain boundary.   The data show that deformation in
Card 1/4

The connection between boundary ...   S/126/61/012/002/011/019
26561   E021/E480

the boundary regions is not stopped when migration of the
boundary occurs.   Thus, the alternate relative displacement of
grains and migration of boundary, as proposed in Ref.1 (Chang H.C.,
Grant N.J. J.Metals, 1952, No.6, 619) to explain the cyclic
character of the deformation process in the boundary regions,
is impossible.   It is proposed that the cyclic nature of the
process is caused by alternate hardening and softening, the
softening in this case being connected with boundary migration.
There are 4 figures and 11 references: 5 Soviet and 6 non-Soviet.
The four most recent references to English language publications
read as follows:
Chang H.C., Grant N.J. J.Metals, 1952, No.6, 619;
Rhines F.N., Bound W.E., Kissel M.A., Trans. ASM, 1956, 48, 919;
Tung S.K., Maddin R. J.Metals, 1957, 9, N7, sec.2, 905;
McLean D. Rev. met., 1956, 53, 139.

ASSOCIATION: Institut metallovedeniya i fiziki metallov TsNIIChM
             (Institute of Science of Metals and Physics of
             Metals TsNIIChM)
SUBMITTED: December 19, 1960
Card 2/4

VOLOSHINA, L. F., TSYGANKOVA, T. M., KAL'FA, S. F. (Prof.) and DUBOVOY, E. D. (Prof.)

"The Application of Radiophosphorus in the Treatment of Certain Diseases of the Eye", a report presented at the Scientific Conference Devoted to the Application of Radioactive Substances in Medicine, Odessa Medical Institute, December 1954, Arkhiv, Patol., No 2, 1956

DUBOVA, O.A.; VOLOSHINOVA, L.M.

Rapid determination of the moisture in ceramic batches with
the EM-1 hygrometer. Stek.i ker. 18 no.8:40 Ag '61.

(MIRA 14:8)

(Ceramics--Moisture)

VOLOSHINA, L. P.

1186. Some mechanical properties of rubberised belts. L. P. VOLOSHINA. Vest. mash., 1954, 34, No. 11, 28-9; U.S. Libr. Congr. Mon. List Russ. Acc., 1955, 7, 1775. Tests were carried out to determine the oscillation characteristics, strength, and elasticity of rubberised transmission belts. There are 4 U.S.S.R. references.   66 B2221.342
See also abstracts 1039 and 1088.

FLORINSKIY, F.V., prof.; VOLOSHINA, L.P., dots.; LYAKHOVITSKIY, S.I., kand.
    tekhn.nauk; SHIROCHENKO, Ye.V., dots. [deceased]; ARCHAKOVA, L.A.,
    inzh.; GVAY, T.B., inzh.; MURZINA, Z.I., inzh.

Results of research on screen vibrating in the horizontal horizontal
plane. Izv.vys.ucheb.zav.; gor.zhur. no.2:167-170 '60.
                                                            (MIRA 14:5)

1. Dnepropetrovskiy gornyy institut.
                        (Screens (Mining))

VOLOSHINA, L.P., kandidat tekhnicheskikh nauk.

Some mechanical properties of rubberized belts. Vest.mash. 34 no.11:
28-29 N '54.   (MLRA 7:11)
            (Belts and belting)

Voloshina, L. P.

USSR/Engineering - Rubberized belts

Card 1/1   Pub. 128 - 6/32

Authors   : Voloshina, L. P.

Title   : About certain mechanical characteristics of rubberized belts

Periodical : Vest. mash. 11, 28-29, Nov 1954

Abstract   : Tests were conducted to determine the oscillation characteristics, strength and elasticity of rubberized drive-belts. Four USSR references (1932-1948). Drawing; diagram; graph.

Institution : ...

Submitted   : ...

VOLOSHINA, M.S. [Voloshyna, M.S.]

Some properties of one class of strongly elliptical systems
of partial differential equations with variable coefficients.
Dop.AN URSR. no.10:1033-1037 '58.   (MIRA 12:1)

1. L'vovskiy gosudarstvennyy universitet im. Iv.Franka.
Predstavil akademik AN USSR B.V.Gnedenko [B.V.Hniedenko].
            (Differential equations, Partial)

AUTHOR: Voloshina, M. S.   SOV-21-58-9-1/28

TITLE: On Some Properties of One Class of Strongly Elliptical Sy-
               stems (O nekotorykh svoystvakh odnogo klassa sil'no ellip-
               ticheskikh sistem)

PERIODICAL: Dopovidi Akademii nauk Ukrains'koi RSR, 1958, Nr 9,
               pp 913 - 917 (USSR)

ABSTRACT: The author considers a self-conjugated system of Euler equa-
               tions which corresponds to the basic variational problem for
               the positive definite functional (in the matrix manner of
               presentation)

$$\int \cdots (n) \cdots \int_D \sum_{k,l=1}^{n} \frac{\partial u'(x)}{\partial x_k} A_{kl} \frac{\partial u(x)}{\partial x_l} dx_1 \cdots dx_n)$$

               where D is a certain n-dimensional region of real space;
               $A_{kl} = A_{lk}$ are constant real square matrices of p-order;
               $A_{kl} = A'_{kl}$ (transposed matrix); $x = (x_1,\ldots,s_n)$ is a point
Card 1/3   of n-dimensional real space.

On Some Properties of One Class of Strongly Elliptical Systems

The system

$$A\left(\frac{\partial}{\partial x}\right)u(x) = \sum_{k,l=1}^{n} A_{kl}\, \frac{\partial^2 u(x)}{\partial x_k \partial x_j} = 0$$

is strongly elliptical in the meaning attached to this word
by M.I. Vishik /Ref.4/. According to Ya.B. Lopatinskiy
/Ref.1/ the fundamental matrix of this system with singular-
arity at point x = y looks as follows:

$$\varphi(x-y) = \frac{(n-3)!}{(-2\pi i)^n} \int \cdots (n-2) \cdots \int_{\substack{(\tau,\tau)=1 \\ (\tau,\nu)=1}} d_\tau s \int \frac{A^{-1}(\beta\nu+\tau)}{(x-y,\beta\nu+\tau)^{n-2}}\, d\beta ,$$

where τ and ν are real n-dimensional unit vectors;

$\tau_1\nu_1 + \cdots\cdots\cdots + \tau_n \nu_n = 0$: $d_\tau s$ is the element of the surface
of the unit sphere $(\tau_1\tau) = 1$; $\int(\cdots)d\beta$ means integration
over a simple positive-oriented closed contour which includes
all β-roots of det $A(\beta\nu+\tau) = 0$ equation with positive ima-
ginary part. The author proves a theorem which establishes
the connection between the fundamental matrix and the nucle-

Card 2/3   us of the potential type integral found by Ya.B. Lopatinskiy

On Some Properties of One Class of Strongly Elliptical Systems

SOV-21-53-9-1/29

/Ref.2/ for a general class of elliptical systems. This connection makes it possible to apply the Neumann-Kellog method of solving the Dirichlet problem in the case of the systems under consideration. There are 6 references, 5 of which are Soviet and 1 unidentified.

ASSOCIATION: L'vovskiy gosudarstvennyy universitet imeni I. Franka (L'vov State University imeni I. Franko)

PRESENTED: By Member of the AS UkrSSR, B.V. Gnedenko

SUBMITTED: March 22, 1958

NOTE: Russian title and Russian names of individuals and institutions appearing in this article have been used in the transliteration.

1. Topology 2. Matrix algebra--Applications

Card 3/3

AUTHOR: Voloshina, M.S.   SOV/21-58-10-1/27

TITLE: On Some Properties of One Class of Strongly Elliptical Sy-
                 stems of Partial Differential Equations with Variable Coef-
                 ficients (O nekotorykh svoystvakh odnogo klassa sil'no ellip-
                 ticheskikh sistem differentsial'nykh uravneniy s peremennymi
                 koeffitsiyentami)

PERIODICAL: Dopovidi Akademii nauk Ukrains'koi RSR, 1958, Nr 10,
                 pp 1033-1037 (USSR)

ABSTRACT: A theorem derived by the author in the previous paper
                 $\boxed{\text{Ref.7}}$ on the connection between the fundamental matrix
                 and the nucleus of the potential-type integral is applied
                 to the case of the following system:

$$A\left(x,\frac{\partial}{\partial x}\right)u(x) \equiv \sum_{h,l=1} A_{hl}(x) \frac{\partial u}{\partial x_h \partial x_l} + \sum_{h=1} P \cdots$$

                 which is a self adjoint system of Euler's equations corres-
                 ponding to the basic variational problem for the positive-
                 definite functional of the form:

Card 1/2
$$\int \cdots^{(n)} \cdots A \cdots \sum \frac{u'(x)}{x_l} \frac{\partial u(x)}{x_l} dx, (dx \cdots dx, \cdots dx_n)$$

SOV/21-58-10-1/27

On Some Properties of One Class of Strongly Elliptical Systems of Partial
Differential Equations With Variable Coefficients

where · = const, and A is a square matrix of the p-order.
The system of equations is strongly elliptical in a sense
attached to this word by M.I. Vishik. Imposing some restric-
tions on the coefficients of this system, the author employs
Neumann - Kellog's method of solving the Dirichlet problem
in the case of the system under consideration. This invest-
igation was carried out under the guidance of Professor
Ya.B. Lopatinskiy. There are 7 Soviet references.

ASSOCIATION: L'vovskiy gosudarstvennyy universitet im. Iv. Franka
              (L'vov State University imeni Iv. Franko)
PRESENTED: By Member of the AS UkrSSR, B.V. Gnedenko
SUBMITTED: April 14, 1958
NOTE: Russian title and Russian names of individuals and institu-
              tions appearing in this article have been used in the
              transliteration.

1. Partial differential equations--Theory

Card 2/2

VOLOSHINA, N.M., inzh.; BONDAR', V.I., inzh.

Yenakiyevo metallurgical plant. Metallurg 8 no.9:21-23 S '63.
(MIRA 16:10)

(Yenakiyevo--Iron and steel plants)

MOTSNYY, A.V.; SHIYAN, F.I.; BAZILEVSKIY, A.R.; VOLOSHINA, N.M.

Treating internal surfaces of ingot molds with a powdered-metal
paste. Sbor.rats.predl.vnedr.v proizv. no.5:17 '60.

(MIRA 14:8)

1. Yenakiyevskiy metallurgicheskiy zavod.
        (Foundries—Equipment and supplies)

VOLOSHINA N.Yu.

SAL'TSEVA, M.T.; VOLOSHINA, N.Yu.

Iodine test in the differential diagnosis of stenocardia and myocardial infarct. Terap.arkh. no.7:49-53 Jl '62. (MIRA 15:8)

(HEART--INFARCTION) (ANGINA PECTORIS) (IODINE)

VOLOSHINA, R.I.; BELYAYEVA, N.I.

New fabrics made by the Bryansk Woolen and Worsted Combine.
Tekst. prom. 23 no.10:46-50 0 '63.   (MIRA 17:1)

1. Nachal'nik dessinatorskoy masterskoy Bryanskogo kamvol'nogo
kombinata (for Voloshina). 2. Zaveduyushchiy khimicheskoy
laboratoriyey Bryanskogo kamvol'nogo kombinata (for Belyayeva).

SAL'TSEVA, M.T., dotsent; VOLOSHINA, N.Yu., aspirant

Importance of Mallen's reaction in determining the activity of
the rheumatic process. Vop.revm. 3 no.1:76-79 Ja-Mr '63.
(MIRA 16:4)

1. Iz kafedry gospital'noy terapii lechebnogo fakul'teta (zav. -
prof. V.G.Vogralik) Gor'kovskogo meditsinskogo instituta imeni
S.M.Kirova.

(RHEUMATIC HEART DISEASE)

17(

AUTHOR: Voloshina, U.A., Colonel of the Medical Corps

TITLE: Patterns of Forward Area Medical Charts and Casualty
            Disposition Tags

PERIODICAL: Voyenno-meditsinskiy zhurnal, 1958, Nr 7, pp 17-20
            (USSR)

ABSTRACT: The author gives a survey of the history of the
            medical chart, beginning from the time of Peter I
            to the present. The medical card published by
            the International Committee of the Red Cross after
            World War I has been improved and supplemented by
            the Soviet Military-Medical Administration. There
            is 1 form of a medical chart for front districts now
            being used, and 12 diagrams of classification marks
            on 2 centerfolds.

Card 1/1

VOLCSHIMA, U.A.

26007   Voloshina, U.A. i Elirov, A. Ye   Meditsinskaya Dokumentatsiya V Voyskovoy
        Chasti Ina Forable. Voen.-Med. Zhurnal, 1948, No.6, S. 25-31.

        SO: Letopis' Zhurnal Statey, No. 30, Moscow, 1948

VOLOSHINA, V.P.

Peculiarities of the clinical course of croupous pneumonia in children treated with antibiotics and sulfanilamides. Vop.okh.mat. i det. 1 no.6:87 N-D '56.   (MIRA 10:1)

1. Iz kliniki detskikh bolezney Rostovskogo meditsinskogo instituta (PNEUMONIA)   (ANTIBIOTICS)   (SULFANILAMIDES)

KILIMOV, A.P.; VOLOSHINA, V.V.

Photoluminescence and absorption of acridone in solutions. Opt.i
spektr. 12 no.5:647-649 My '62.   (MIRA 15:5)
              (Acridanone--Spectra)

Treating seeds. Ya. P. Berkman, B. A. Voloshinov and I. G. Gurdzhi. Russ. 55,849, Oct. 31, 1939. The seeds are treated with Mg, Fe or Zn salts of sulfonated crude anthracene, anthracene oil or heavy oil.

UKRAINE / Human and Animal Physiology. Blood.   T

Abs Jour: Ref Zhur-Biol., No 9, 1958, 41234.

Author   : Voloshinov, B. M.
Inst   : Not Given.
Title   : The Leucolytic Index of the Blood Serum in Children.

Orig Pub: Pediatriya, akusherstvo. ginekologiya, 1956, No 5,
          21-24.

Abstract: The leucolytic properties of the blood serum were
          studied in 27 boys and 18 girls, aged 2-10 and
          older, suffering from congenital hemolytic jaun-
          dice, pneumonia, parenteral dyspepsia, bronchitis
          and catarrhal otitis media. The ability of the
          childrens sera to dissolve guinea pig leucocytes
          may serve as an index of changes in the status of
          the protective properties of the body. The serum
          leucolytic index (LI) in 50 adults varied from

Card 1/2

55

STULIY, L.A.; SAFRONOVA, O.N.; BUTS'KA, L.K., kand. med. nauk; KRIVOBOKOV,
S.A. [Kryvobokov]; VOLOSHINOV, B.M. [Voloshynov, B.M.], dotsent
BICHKOVSKIY, V.N. [Byshkovs'kyi, V.N.] dotsent; POKOTILOVA, V.Yu.
[Pokotylova, V. IU]; KOLESNIKOV, G.F. [Kolesnykov, H.F.]; ZLATKIS,
L.S.; SAVOST'YANOVA, S.I.; BRIN, D.D. [Bryn, D.D.]; MATVEYENKO,
Ye.A. [Matviienko, IE.A.]; BRONZ, L.M.; YEPSHTEYN, L.G. [Epshtein,
L.H.], kand. med. nauk; SHAKHNOVICH, L.A. [Shakhnovych, L.A.]

Annotations and authors' abstracts. Pediat. akush. ginek. no.3:
31-34 '63   (MIRA 17:1)

1. Khar'kovskiy nauchno-issledovatel'skiy institut okhrany mate-
rinstva i detstva (for Stuliy). 2. Kafedra detskikh bolezney
Odesskogo meditsinskogo instituta (for Safronova). 3. Ukrain-
skiy institut okhrany materinstva i detstva (for Buts'ka).
4. Detskiy sanatoriy dlya rekonvalestsentov ot tuberkuleznogo
meningita, Kiyev, Pushcha-Voditsa (for Krivobokov). 5. Detskaya
klinika Ivano-Frankovskogo meditsinskogo instituta (for Volo-
shinov). 6. Kafedra detskikh infektsionnykh bolezney Krymskogo
meditsinskogo instituta (for Bichkovskiy, Pokotilova). 7. In-
stitut infektsionnykh bolezney Kiyev (for Kolesnikov). 8.Khar'-
kovskiy oblastnoy detskiy dom No.1 (for Zlatkis, Savost'yanova,
Brin, Matveyenko). 9. Kafedra pediatrii Kiyevskogo medi institu
(for Bronz) 10. Kafedra fakul'tetskoy pediatrii Gor'kovskogo med.
instituta (for Yepshteyn). 11. 2-ya detskaya bol'nitsa Shevchen-
kovskogo rayona g. Kiyeva (for Shakhnovich).

EXCERPTA MEDICA Sec 7 Vol 13/4 Pediatrics Apr 59

945. THE LEUCOLYTIC INDEX OF BLOOD SERUM IN CHILDREN (Russian text) - Voloshinov B. M. - PEDIAT. AKUSH. I GINEK. 1956, 5 (21-24) Study was made of the leucolytic property of the blood serum in adults and children, using guinea-pig leucocytes for which the leucolysis figures are constant. The method of determining the leucolytic index according to Yudina is described. The author holds that the leucolytic ability of the children's blood serum can be a pointer to the functional state of the defence mechanisms of the organism. The leucolytic index of adults varied from 10 to 60%, the average figures being 21-40%. The leucolytic index in healthy children aged 4 months - 4 yr. was 20-31%, and in sick children (aged 6 months to 16 yr.) 0.9-60%, depending on the stage of the disease. In convalescence the index figures approached the normal.   (S)

VOLOSHINOV, B.S., inzhener; SHCHUPKIN, V.A., inzhener.

IuUMZ planetary reduction gears. Vest.mash. 36 no.11:8-12 N'56.

(MIRA 10:1)

(Gearing)

VOLOSHINOV, D.B.

Elastotonometric examinations in hypertension. Oft. zhur. 14 no.2:
101-107 '59.   (MIRA 12:7)

1. Iz kliniki glaznykh bolezney (zav. - prof. S.F. Kal'fa) Odesskogo
meditsinskogo instituta.
         (EYE--EXAMINATION) (HYPERTENSION)

GUREVICH, M.B., arkhitektor; YEL'KIN, G.A., arkhitektor; FILENKOV,
    Yu.P., arkhitektor; ZIL'BERMAN, G.P., arkhitektor;
    KRYUKOV, G.V., arkhitektor; PANCHENKO, N.D., arkhitektor;
    VOLOSHINOV, G.I., arkhitektor

Regardless of passengers convenience and economics of con-
structions. Transp. stroi. 15 no.3:57 Mr '65.   (MIRA 18:11)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut tekhni-
cheskoy estetiki (for Gurevich, Yel'kin, Filenkov). 2. Novo-
sibirskproyekt (for Zil'berman). 3. MVKhTU (for Kryukov).
4. Moskovskiy gosudarstvennyy proyektnoizyskatel'skiy i
nauchno-issledovatel'skiy institut, transporta Ministerstva
transportnogo stroitel'stva SSSR (for Panchenko, Voloshinov).

VOLOSHINOV, S.D.

100-9-6/11

AUTHORS: Vinitskiy, A.M., Candidate of Technical Sciences
and Voloshinov, S.D., Engineer.

TITLE: Automatic Regulation of Pressure in Cement Grouting
Operations (Avtomaticheskoye regulirovaniye davleniya
pri proizvodstve tsementatsionnykh rabot)

PERIODICAL: Mekhanizatsiya Stroitel'stva, 1957, no.9,
pp. 16 - 19 (USSR).

ABSTRACT: The Laboratory for Automation of the Scientific and
Research Institute for Building Industry, YuZhNII, designed
in collaboration with the Cementation Institute a system for
pile cementation which has the following features: speed,
accuracy and simplicity of manual setting to a pre-determined
pressure; possibility to alter manually the pressure during
the process; smoothness and continuity of the automatic regu-
lation of pressure; the servo-motor on the valve can be dis-
connected automatically; reliable operation during adverse
weather conditions. Electrical automatic control of the
pressure is applied. The pointer of a pressure gauge is joined
with the spring loaded contact which slides along a wire
resistance so that the movement of the pressure gauge pointer
changes the point of contact on a potentiometer resistance.
The basic circuit diagram of the control circuit is shown in

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100-9-6/11

Automatic Regulation of Pressure in Cement Grouting Operations

Fig.3, p.19, and a photograph of it is reproduced in Fig.4, p.19. The drive is effected by a 0.27 kW, 3-phase asynchronous motor through a reductor gear which reduces the speed of the drive shaft to 8 r.p.m; the screw producing the pressure can be rotated in either direction. The highest sensitivity is achieved by feeding the equipment with a d.c. of 26 V and to maintain the voltage within the desired limits, a ferro-resonance stabiliser with a barretter tube is used. The pressure is maintained with an accuracy of $\pm$ 1.5% for variations of the supply voltage of $\pm$ 20%. The automatic controls are designed for many years' operation, but the barretter has to be replaced after each 2 000 hours. There are 4 figures.

AVAILABLE: Library of Congress
 Card 2/2
            1. Construction-Equipment   2. Pressure-Control systems
            3. Servo motors-Applications

Voloshinov, S.D.

VINITSKIY, A.M., kand.tekhn.nauk; VOLOSHINOV, S.D., inzh.

The automatic regulation of pressure in cementation. Mekh.stroi.
14 no.9:18-19 S '57.   (MIRA 10:11)
          (Cement)   (Automatic control)

VOLOSHINOV, S.D., inzhener.

Circulating method of injecting cement into ground. Stroi.
prom.32 no.2:45-46 F '54.   (MLRA 7:2)

1. YuZhNII.   (Soil stabilization) (Grouting)

VOLOSHINOV, V.; RUMYANTSEV, N.

Visual method for studying the processes occuring in engines.
Avt. transp. 38 no. 5:49-50 My '60.   (MIRA 14:2)
        (Saratov—Automobile engineering—Study and teaching)

Voloshina, V. P.

VOLOSHINA, V.P.

Clinical aspects of primary sarcoma of the pleura. Sov.med. 21
Supplement:28-29 '57.   (MIRA 11:2)

1. Iz gorodskoy klinicheskoy bol'nitsy No.1 Ashkhabada.
        (PLEURA--CANCER)

VOLOSHINOV, V.P., inzh.

Methods of the synthesis of 2_n-pole circuits according to given operational characteristics. Trudy LIIZHT no.176:99-107 '61.

(MIRA 15:5)

(Electric filters)   (Electric networks)

VOLOSHINOV, V.F., inzh.

Stability of feedback amplifiers. Sbor. trud. LIIZHT   no.179:
133-138   '61.

(MIRA 16:11)

VOLOSHINOV, V.P., inzh.

Design of a system of antimetric filters for simultaneous operation.
Sbor. trud. LIIZHT no.186 Elektrosviaz' i radiotekhnika:152-161 '62.
(MIRA 16:7)

(Electric filters)
(Pulse techniques (Electronics))

VOLOSHINOV, V.P.

Calculation of a system of jointly operating filters. Trudy Ural.
elektromekh. inst. inzh. zhel. dor. transp. no.8:93-105 '63.
(MIRA 18:7)

YERSHOV, A.P.; KOZHUKHIN, O.I.; VOLOSHIN, Yu.M.

[Input language for an automatic programming system; pre-
liminary information] Vkhodnoi iazyk sistemy avtomaticheskogo
programmirovaniia; predvaritel'noe soobshchenie. Moskva, Vy-
chislitel'nyi tsentr AN SSSR, 1961. 173 p.   (MIRA 14:8)
          (Programming(Electronic computers))

VoLOSHINOVA   A.M.

GOROKHOVSKIY, I.T.; VOLOSHINOVA, A.M.

Viscosimetry of the coagulation of aluminum and iron hydroxides
at the moment of their formation during the hydrolysis of salts.
Koll.zhur. 16 no.5:333-339 S-O '54.   (MLRA 7:11)
        (Coagulation) (Viscosimeter) (Aluminum hydroxide) (Iron
                                                          hydroxide)

Voloshinova, A.M.

USSR.

Viscometric study of the coagulation of aluminum and iron hydroxides during their formation in the hydrolysis of salts. I. T. Goronovskii and A. M. Voloshinova. Colloid J. (U.S.S.R.) 16, 327-31(1954)(Engl. translation).—See C.A. 49, 2918d.

H. L. H.

Voloshinova, G. A.

551.525:536.21

Voloshinova, G. A., Sravnenie razlichnykh metodov opredeleniia koeffitsienta tem-
peraturoprovodnosti. [Comparison of different methods for determining the coefficient of
heat conduction.] *Leningrad. Glavnaia Geofizicheskaia Observatoriia, Trudy*, No. 22(84):
31-37, 1950. 2 tables, 3 refs., 3 equations. DLC—The precision of various formulas for
calculating the coefficient of heat conductivity of the soil is examined by applying each
formula to the same temperature data. These formulas include the expression of heat con-
ductivity as a simple periodic function (or a Fourier series) and the expression of LAIKHTMAN
and TSEITIN. It was found that the formula of TSEITIN gives an exact value for the coefficient
of heat conduction during the hours when the flow changes direction and that of LAIKHTMAN
for diurnal period when the former is not applicable. *Subject Headings:* 1. Heat conductivity
of soil 2. Heat conductivity coefficient 3. Soil temperatures.—*I.L.D.*

VOLOSHINOVA, G.A.

"Thermal Exchange in the Soil, the Arysak Expedition of 1945," Trudy
NIU GUGMS, Series 1, No 39, 1947.

VOLOSHINOVA, G.A.

Heat exchange in the soil; measurement of soil temperature.
Trudy NIU Ser.1 no.39:32-36 '47.   (MLRA 7:2)
(Soil temperature)

DUBOVA, O.A.; VOLOSHINOVA, L.M.

Service of refractories used in high-temperature melting of glass.
Stek. i ker. 18 no.10:39-42 O '61.   (MIRA 14:11)

1. Lisichanskiy stekol'nyy zavod.
         (Refractory materials) (Glass furnaces)

1. VOLOSHINOVA, N. A.

2. USSR (600)

4. Sakhalin - Geology, Stratigraphic

7. Stratigraphy and microfauna of the Tertiary deposits of northern Sakhalin. (Abstract.)
    Izv.Glav.upr.geol.fon. no. 3, 1947.

9. Monthly Lists of Russian Accessions, Library of Congress, March 1953, Unclassified.

VOLOSHINOVA, N.A.

The genus Buccella Andersen and its species from the Neogene of
Sakhalin. Trudy VNIGRI no.153:265-305 '60.   (MIRA 13:7)
(Sakhalin--Foraminifera, Fossil)

VOLOSHINOVA, N.A.; KUZNETSOVA, V.N.

New data on the morphology and evolutional development of some
representatives of the family Elphidiidae. Vop. mikropaleont.
no.8:138-153 '64.   (MIRA 18:5)

1. Vsesoyuznyy nauchno-issledovatel'skiy geologorazvedochnyy
neftyanoy institut.

VOLCGHINOVA, N. A.

Voloshivova, N. A. "On a new representative of the Miliolidae family--
Dogielina sarmatica gen. et sp. n., fr m the central-Sarmatian deposits
of the Crimen-Causcasus Oblast", Trudy 'sesoyuz. neft. nauch.-issled. goel.
razved. in-t, New series, Issue 34, 1949, p. 183-86, with table.

SO: U-4392, 19 August 53, (Letop:s '.hurnal 'nykh Statey, No 21, 1949).

1. VOLOSHINOVA, N. A.

2. USSR (600)

4. Micropaleontology-Sakhalin

7. Stratigraphy and microfauna of the Tertiary deposits of northern Sakhalin. [Abstract]
    Izv.Glav.upr.geol.fon. no. 3, 1947.

9. Monthly List of Russian Accessions, Library of Congress, March 1953, Unclassified.

VOLOSHINOVA, M.A.; BUDASHEVA, A.I.

Lituolids and trochamminids from Tertiary deposits of Sakhalin and Kamchatka. Trudy VNIGRI no.170:169-269 '61.
(MIRA 14:10)

(Sakhalin --Foraminifera, Fossil)
(Kamchatka--Foraminifera, Fossil)

1. VOLOSHINOVA, N. A.

2. USSR (600)

4. Geology, Stratigraphic - Sakhalin

7. Stratigraphy and microfauna of the Tertiary deposits of northern Sakhalin.
   /Abstract/.   Izv. Glav. upr. geol. fon.   no.3   1947

9. Monthly Lists of Russian Accessions, Library of Congress, March 1953, Unclassified

BYKOVA, N.K.; BALAKHMATOVA, V.T.; VASILENKO, V.P.; VOLOSHINOVA, N.A.;
GRIGELIS, A.; DAIN, L.G.; IVANOVA, L.V.; KUZINA, V.I.; KUZNETSOVA,
Z.V.; KOZYREVA, V.F.; MOROZOVA, V.G.; MYATLYUK, Ye.V.; SUBBOTINA, N.N.

New genera and species of Foraminifera. Trudy VNIGRI no.115:5-106
'58.   (MIRA 11:10)

(Foraminifera, Fossil)

VOLOSHINOVA, N.A.

New systematics of Nonionidae. Trudy VNIGRI   no.115:117-223   '58.
(Foraminifera, Fossil)

1. VOLOSHINOVA, N. A.

2. USSR (600)

4. Sakhalin - Micropaleontology

7. Stratigraphy and microfauna of the Tertiary deposits of northern Sakhalin. (Abstract.)
   Izv.Glav.upr.geol.fon. no. 3, 1947.

9. Monthly Lists of Russian Accessions, Library of Congress, March 1953, Unclassified.

VOLOSHINOVA, N.A.

Degree of knowledge and ways for the further study of Tertiary
Lituolidae. Vop. mikropaleont. no.8:3-12 '64.

(MIRA 18:5)

1. Sakhalinskoye otdeleniye Vsesoyuznogo nauchno-issledovatel'skogo
geologorazvedochnogo neftyanogo instituta.

VOLOSHINOVA, N.A.

Dagi series of the Okha-Ekhabi region. Trudy VNIGRI no.181:63-72
'61.   (MIRA 15:2)
          (Okha region—Geology, Stratigraphic)
          (Ekhabi region—Geology, Stratigraphic)

L 22424-65   EWT(d)/EWP(v)/EWP(k)/EWP(h)/EWP(l)   Pf-4   MJX   32

ACCESSION NR: AT4047751   S/0000/64/000/000/0164/0171   30

AUTHOR: Voloshinova, Ye. V.

TITLE: Tentative physiological analysis of the solution of a control problem by man

SOURCE: AN SSSR. Institut avtomatiki i telemekhaniki. Teoriya i primeneniye avtomaticheskikh sistem (Theory and application of automatic systems). Moscow, Izd-vo Nauka, 1964, 164-171

TOPIC TAGS: automaton, human engineering

ABSTRACT: A special experimental outfit (see Enclosure 1) consisting of a dynamoelectric amplifier (EMU-8), a control device, and three voltmeters was employed for testing how a subject (man) solves a problem of controlling the output of a plant. By operating the control handle, the subject had to bring the output variable to a specified value (x = 0) from its initial value (x_0 = 50 v). The volt-

Card 1/3

L 22424-65
ACCESSION NR: AT4047751

meters indicated his actions (No. 1) and their effects (No. 2 and No. 3). Six
subjects were tested. Two series of experiments were staged: (1) Learning to
control the plant describable by a 2nd order differential equation; the plant
included two integrating units; and (2) Controlling the plant with different specas
of the processes in it; subjects trained in the first series of experiments were
employed. Learning the control functions by a man is regarded as consisting of
three stages which are explained on the basis of I. M. Sechenov's and I. P.
Pavlov's ideas. "The project was carried out under the guidance of L. G.
Voronin and A. Ya. Lerner." Orig. art. has: 7 figures and 6 formulas.

ASSOCIATION: none

SUBMITTED: 06Jun64   ENCL: 01

SUB CODE: DP   NO REF SOV: 014   OTHER: 006

Card 2/3

46706

S/169/62/000/008/079/090
E032/E114

9.9110

AUTHOR: Voloshinova, Z.V.

TITLE: Verification of the accuracy of the "Forecasting of
            maximum usable frequencies at different solar
            activities" using ionospheric data

PERIODICAL: Referativnyy zhurnal, Geofizika, no.8, 1962, 24,
            abstract 8 G 177. (Tr. In-ta zemn. magn. ionosfery i
            rasprostr. radiovoln. AN SSSR, no.19(29), 1961, 52-70).

TEXT: "The forecasting of maximum usable frequencies at
different solar activities" which contains MUF graphs for regular
layers of the ionosphere and sunspot numbers $W = 0$, 50, 100 and
150 was checked by comparison with observational data obtained at
ionospheric stations. It was found that the accuracy of the
forecast is on the average quite satisfactory for activity levels
$W < 150$. During the years of very high solar activity the
forecast gives MUF values which are too high by 10-15%. The
maximum accuracy is achieved for middle latitudes of the northern
hemisphere. An analysis is given of the reasons for the

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Verification of the accuracy of ...   S/169/62/000/008/079/090
                                         E032/E114

discrepancies between the forecasts and the observations, and
steps are recommended whereby the accuracy can be increased.

[Abstractor's note: Complete translation.]

Card 2/2

VOLOSHINA, N.M .

PHASE I BOOK EXPLOITATION   SOV/5556

Moscow. Institut stali.

Novoye v teorii i praktike proizvodstva martenovskoy stali (New [Developments]
in the Theory and Practice of Open-Hearth Steelmaking) Moscow, Metallurgizdat,
1961. 439 p. (Series: Trudy Mezhvuzovskogo nauchnogo soveshchaniya)
2,150 copies printed.

Sponsoring Agency: Ministerstvo vysshego i srednego spetsial'nogo obrazovaniya
RSFSR. Moskovskiy institut stali imeni I. V. Stalina.

Eds.: M. A. Glinkov, Professor, Doctor of Technical Sciences, V. V. Kondakov,
Professor, Doctor of Technical Sciences, V. A. Kudrin, Docent, Candidate of
Technical Sciences, G. N. Oyks, Professor, Doctor of Technical Sciences,
and V. I. Yavoyskiy, Professor, Doctor of Technical Sciences; Ed.: Ye. A.
Borko; Ed. of Publishing House: N. D. Gromov; Tech. Ed.: A. I. Karasev.

PURPOSE: This collection of articles is intended for members of scientific
institutions, faculty members of schools of higher education, engineers
concerned with metallurgical processes and physical chemistry, and students
specializing in these fields.

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New [Developments] in the Theory (Cont.)   SOV/5556

COVERAGE: The collection contains papers reviewing the development of open-
hearth steelmaking theory and practice. The papers, written by staff
members of schools of higher education, scientific research institutes,
and main laboratories of metallurgical plants, were presented and discussed
at the Scientific Conference of Schools of Higher Education. The following
topics are considered: the kinetics and mechanism of carbon oxidation; the
process of slag formation in open-hearth furnaces using in the charge either
ore-lime briquets or composite flux (the product of calcining the mixture of
lime with bauxite); the behavior of hydrogen in the open-hearth bath; metal
desulfurization processes; the control of the open-hearth thermal melting
regime and its automation; heat-engineering problems in large-capacity
furnaces; aerodynamic properties of fuel gases and their flow in the furnace
combustion chamber; and the improvement of high-alloy steel quality through
the utilization of vacuum and natural gases. The following persons took
part in the discussion of the papers at the Conference: S.I. Filippov,
V.A. Kudrin, M.A. Glinkov, B.P. Nam, V.I. Yavoyskiy, O.N. Oyks and Ye.
V. Chelishchev (Moscow Steel Institute); Ye. A. Kazachkov and A. S.
Kharitonov (Zhdanov Metallurgical Institute); N.S. Mikhaylets(Institute of
Chemical Metallurgy of the Siberian Branch of the Academy of Sciences USSR);
A.I. Stroganov and D. Ya. Povolotskiy (Chelyabinsk Polytechnic Institute);
P.V. Umrikhin (Ural Polytechnic Institute); I.I. Fomin (the Moscow "Serp i
molot" Metallurgical Plant); V.A. Fuklev (Central Asian Polytechnic Institute)

Card 2/14

New [Developments] in the Theory (Cont.)   SOV/5556

and M.I. Beylinov (Night School of the Dneprodzerzhinsk Metallurgical Institute).
References follow some of the articles. There are 268 references, mostly Soviet.

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10

New [Developments] in the Theory (Cont.)   SOV/5556

Kleyn, A.L., and P.V. Umrikhin [Ural Polytechnic Institute]. Slag
Formation When Using Composite Flux Produced by Calcination of
Lime-Bauxite Mixture   117

Ushakov, Ye. N. [Candidate of Technical Sciences], Ye. V. Abrosimov,
[Docent, Candidate of Technical Sciences], V.I. Kozlov, V.A.
Shcherbakov [Engineers], A.G. Kotin [Candidate of Technical Sciences],
and M.P. Sabiyev [Engineer], [Moscow Steel Institute, Ukrainskiy
nauchno-issledovatel'skiy institut metallov - Ukrainian Scientific
Research Institute of Metals, Alchevskiy metallurgicheskiy zavod -
Alchevsk Metallurgical Plant]. Improving the Steelmaking Process
in Large-Capacity Open-Hearth Furnaces   125

Voloshina, N.M. [Engineer]. Using Ore-Lime Briquets Instead of Ore
and Lime in the Open-Hearth Process   133
    [D.I. Sapiro, P.I. Kovalev, S.I. Zhmak, G. Ye. Kravtsov,
    Engineers, and I.M. Tkachenko, A.P. Polotayev, Technicians
    participated in the research work]

Ofengenden, A.M. [Engineer]. Accelerating the Slag Formation and
Desulfurization in the Open-Hearth Process   140

Card 6/14

VOLOSHINOV, V.P., inzh.

Designing filter connections for joint operation according to working parameters. Trudy LIIZHT no.176:108-114 '61. (MIRA 15:5)
(Electric filters)

NAPALKOV, A.V.; VOLOSHINOVA, Ye.Y.

    Interrelation between the various components of the complex
system of conditioned motor food reflexes in rats. Zhur.
vys. nerv. deiat. 11 no.6:1127-1133 ⬛ '61.   (MIRA 15:3)

    1. Chair of Physiology of the Higher Nervous Activity,
Moscow University.
                    (CONDITIONED RESPONSE)

ACC NR: AP7002009   SOURCE CODE: UR/0043/66/000/004/0064/0074

AUTHOR: Voloshinova, T. V.

ORG: none

TITLE: Synthesis of an invariant structure for some systems of multiply-connected control. I

SOURCE: Leningrad. Universitet. Vestnik. Seriya matematiki, mekhaniki astronomii, no. 4, 1966, 64-74

TOPIC TAGS: control theory, mathematic matrix, automatic control system, matrix element, polynomial, characteristic equation

ABSTRACT: A system of multiply-connected control consisting of m separate, structurally identical multiloop systems is examined. The equations for the i-th separate system under zero initial conditions are:

$$T_i' p \eta_i + \psi_i = 0,$$

$$-\sum_{k=1}^{m} r_{ik} \eta_k + (T_i^1 p + 1) \mu_i^1 = 0,$$

$$-\sum_{k=1}^{m} c_{ik}^j \mu_k^j + (T_i^{j+1} p + 1) \mu_i^{j+1} = 0 \quad (j=1, \ldots, n-1),$$

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ACC NR: AP7002005

$$-\sum_{h=1}^{m} c_{ih}^{'} \mu_h^2 + \sum_{h=1}^{m} \left(T_{ih}^{M}p + m_{ih}\right)\psi_h = \sum_{h=1}^{m}\lambda_{ih}f_{hi}$$

(see Fig. 1).
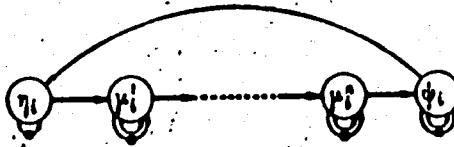

Fig. 1. Graphical representation of system

The system is reduced to one matrix equation for ψ :

$$\left\{\left[\prod_{i=0}^{n-1} G_{n-i}\left(T_{n-i}p + E\right)^{-1}\right] R\left(T_r p\right)^{-1} + \left(T_M p + M\right)\right\}\psi = \Lambda f.$$

In order that the product of nondegenerate matrices A and B be a diagonal matrix
(AB = D), it is necessary and sufficient that the columns of B be proportional to the
columns of A^{-1}, or that the rows of A be proportional to the rows of B^{-1}. If B is a
scalar matrix and square matrices A and C with nonzero diagonal elements such that the
product AC = D is a nondegenerate diagonal matrix, then ABC = D_1 is a diagonal matrix.
Four solutions of the system are examined. Solution IV:

$$T_M = D, \quad M = D, \quad \Lambda = D,$$

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ACC NR: AP7002009

$$R^{-1}C_i^{-1} = D \quad (1 < l < n)$$
$$C_k = D \quad (k = l+1, \ldots, n),$$
$$C_k = v_k E \quad (k = 1, \ldots, l-1),$$
$$T_k = \bar{v}_k E \quad (k = 1, \ldots, l).$$

An example of a multiply-connected control system consisting of two one-loop separate systems, each of which has two degrees of amplification, is examined. Orig. art. has: 44 formulas and 4 diagrams.

SUB CODE: 12/ SUBM DATE: 29Nov65/ ORIG REF: 004/ OTH REF: 001

Card 3/3

S/271/63/000/001/012/047
D413/D308

AUTHORS: Voloshinova, Ye.V. and Shtil'man, Ye.V.

TITLE: On the simulation of learning processes in automatic
                systems

PERIODICAL: Referativnyy zhurnal, Avtomatika, telemekhanika i
                vychislitel'naya tekhnika, no. 1, 1963, 39, abstract
                1A216 (In collection: Avtomat. regulirovaniye i upr.,
                M., AN SSSR, 1962, 188-199)

TEXT: The authors consider the topical problem of the sim-
ulation by automatic devices of certain functions of the human and
animal brains. They describe the human and animal methods of learn-
ing. They point out that the 'method of trial and error' is the
fundamental learning method for animals, and briefly set out the
principles taken as the basis of machines for proving Gelernter's
and Rochester's theorems, of Selfridge's pandemonium and Rosenblat's
perceptron, and also consider the learning machine produced in the
USSR, designed in the cybernetics SIB of the IEI. They draw conclu-

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On the simulation of learning ...

S/271/63/000/001/012/047
D413/D308

sions on the basic features of the learning process in living organisms and automatic systems, and give a classification of automatic learning systems. 18 references.
/ Abstracter's note: Complete translation_7

Card 2/2

VOLOSHINOVA, YE. V.   *55*

PHASE I BOOK EXPLOITATION   SOV/6012

Akademiya nauk SSSR. Institut avtomatiki i telemekhaniki.

Avtomaticheskoye regulirovaniye i upravleniye (Automatic Regulation
   and Control) Moscow, Izd-vo AN SSSR, 1962. 526 p. Errata slip
   inserted. 9000 copies printed.

Resp. Ed.: Ya. Z. Tsypkin, Professor, Doctor of Technical Sciences;
   Ed. of Publishing House: Ye. M. Grigor'yev; Tech, Ed.: I. M.
   Dorokhina.

PURPOSE: This book is intended for scientific research workers and
   engineers concerned with automation.

COVERAGE: The book is a collection of articles consisting of papers
   delivered at the 7th Conference of Junior Scientists of the Insti-
   tute of Automation and Telemechanics, Academy of Sciences USSR,
   held in March 1960. A wide range of scientific and technical
   questions relating to automatic regulation and control is covered.

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Automatic Regulation (Cont.)   SOV/6012

The articles are organized in seven sections, including automatic
control systems, automatic process control, computing and decision-
making devices, automation components and devices, statistical
methods in automation, theory of relay circuits and finite auto-
matic systems, and automated electric drives. No personalities
are mentioned. References are given at the end of each article.

TABLE OF CONTENTS:

PART I.   AUTOMATIC CONTROL SYSTEMS

Andreychikov, B. I. The effect of dry friction and slippage
    [play] on error during reverse gear operation of servo-
    feed systems

Andreychikov, B. I. Dynamic accuracy of machine tools with
    programmed control   14

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Automatic Regulation (Cont.)   SOV/6012

Morkin, K. B. Transmitter autotuning system using an
    automatic optimizer   144

Parsheva, R. P. On the boundedness of transient regimes
    in a five-dimensional automatic control system   154

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    of an automatic control system for air conditioners   176

Voloshinova, Ye. V. and Ye. V. Shtil'man. On modelling
    learning-processes in automatic systems   188

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L. 09.60-67

ACC NR: AP6028895   (A,N)   SOURCE CODE: UR/0325/66/000/003/0103/0106

5 4

AUTHOR: Voloshinova, Ye. V.

ORG: Department of Physiology of Higher Nervous Activity, Moscow State University, im. M. V. Lomonosov (Kafedra fiziologii vysshey nervnoy deyatel'nosti Moskovskogo gosudarstvennogo universiteta)

TITLE: Electrophysiologic studies of the human performance of operational tasks

SOURCE: Nauchnyye doklady vysshey shkoly. Biologicheskiye nauki, no. 3, 1966, 103-106

TOPIC TAGS: man, central nervous system, signal processing, training, recognition process, EEG, EMG , CONDITIONED REFLEX

ABSTRACT: The work reports on studies of changes in tentative reactions during the process of training to handle equipment modeling different tasks. The reactions were monitored by EEG, skin-galvanic reaction (SGR) and electromyogram (EMG) of the lower lip, on the assumption that reactions to the secondary signal system, i.e., reactions reflected in speech and thought, are related to kinetic impulses connected with the work of the speech organs. Five groups of individuals, priorily tested for their reactions on the monitoring equipment, received varying degrees of instructions on task performance. Reactions were the same for all groups. In tests for the various stages of establishing a skill, changes were observed in SGR and EEG, the two components of tentative reflex. The SGR and desynchronization of cortical rhythms were seen in the

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L 08167-67

ACC NR: AP6028895   0

first test, conditioned tentative reaction to the signal "attention" in the 6-10th
test. During training, weakening of tentative reaction was seen (SGR extinction) but
no complete disappearance (retained EEG component). Blockade of electric brain
activity is retained; it is a component of orientation reaction and forms one system
with the conditioned reflex. It is determined by the functional state of the brain
arising in the presence of a complex conditioned reflex act. Constant EEG reactions
reflect a specialized tentative reflex to a conditioned signal. Orig. art. has:
1 table and 1 figure.

SUB CODE: 06, 07/ SUBM DATE: 15Sep65/ ORIG REF: 009

Card 2/2   nst

KERBLAY, T.S.; VOLOSHINOVA, Z.V.

Estimation of the inclinations of equal electron concentrations
in the ionosphere based on data on the distribution of ionization
with height. Geomag. i aer. 4 no.1:61-66 Ja-F'64.

(MIRA 17:2)

1. Institut zemnogo magnetizma ionosfery i rasprostraneniya
radiovoln AN SSSR.

VOLOSHINOVA, Z. V.

Verifying the "forecast of the maximum usable frequencies under
different conditions of solar activity" on the basis of ionospheric
data. Trudy IZMIRAN no.19:52-70 '61.   (MIRA 15:3)
    (Ionospheric radio wave propagation) (Radio frequency)

ACCESSION NR: AP4013139   S/0203/64/004/001/0061/0066

AUTHORS: Kerblay, T. S.; Voloshinova, Z. V.

TITLE: Determining the slopes of surfaces having equal electron concentrations in the ionosphere from data on the distribution of ionization with height

SOURCE: Geomagnetism i aeronomiya, v. 4, no. 1, 1964, 61-66

TOPIC TAGS: ionosphere, electron concentration, ionization distribution, N(h) profile

ABSTRACT: The authors have investigated slopes of equal electron concentration arising from differences in heights of equal density distribution (h_{N_c}) at different latitudes through differences in illumination and because of latitudinal distribution of h_{N_c}. In the first case a definite diurnal course in slope angle was observed according to changes in h_{N_c}. Negative slope angles of 2-3° were observed as the sun rose. Negative values of equal value characterized the evening hours. In the second case (latitudinal variations in h_{N_c}), the slope angle reached 5°.

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ACCESSION NR: AP4013139

Computations of slope angles were made from data on N(h) profiles at a number of stations in different latitudes and from the world map for h_m, y_m. It was found that the map gives much smaller absolute values than the data on N(h) profiles for individual days, but the times of appearance and the direction of slope are in agreement. The authors conclude that maps of h_m, y_m, replotted to maps of h_{N_c}, may be used to determine the effect of these equal-concentration slopes on the propagation of short waves. Orig. art. has: 3 figures and 2 tables.

ASSOCIATION: Institut zemnogo magnetizma, ionosfery* i rasprostraneniya radiovoln AN SSSR (Institute of Terrestrial Magnetism, the Ionosphere, and Propagation of Radio Waves AN SSSR)

SUBMITTED: 22May63   DATE ACQ: 02Mar64   ENCL: 00 0

SUB CODE: ES   NO REF SOV: 004   OTHER: 002

Card 2/2

AUTHORS: Voloshinskiy, A. and Kobelev, L.   SOV/126-6-2-25/34

TITLE: On the Dispersion Relation for an Electron Plasma
              (O dispersionnom sootnoshenii dlya elektronnoy plazmy)

ABSTRACT: The dispersion relation for an electron plasma which was
              first obtained by Vlasov (Ref.1) was also discussed by
              Klimantovich et alii (Ref.2) and Bohm (Ref.3). In all
              these papers the plasma was considered in the self-
              consistent field approximation. Virtual interaction of
              electrons with the self-consistent field when electrons
              are scattered by the field was not taken into account.
              The problem is now re-examined and it is shown that in
              the general case the dispersion relation is determined
              not only by the form of the electron Green's function
              but also by the form of the photon Green's function.
              The dispersion relation is given in an explicit form.

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SOV/126-6-2-25/34

On the Dispersion Relation for an Electron Plasma

S. V. Vonsovskiy (Corresponding Member of the Ac.Sc.USSR) and V. L. Bonch-Bruyevich are thanked for their help. There are 8 references, 4 of which are Soviet, 4 English.

Card 2/2   1. Electron gas--Properties   2. Electrons--Scattering

BOLOTIN, G.A.; VOLOSHINSKIY, A.N.; KIRILLOVA, M.M.; NOSKOV, M.M.;
SOKOLOV, A.V.; CHARIKOV, B.A.

Optical properties of titanium and vanadium in the infrared
region of the spectrum. Fiz. met. i metalloved. 13 no.6:823-831
Je '62.   (MIRA 15:7)

1. Institut fiziki metallov AN SSSR.
     (Titanium—Optical properties) (Vanadium—Optical properties)
                        (Spectrum, Infrared)

9.5370

39760
S/126/62/013/006/002/018
E202/E492

AUTHORS: Bolotin, G.A., Voloshinskiy, A.N., Kirillova, M.M., Noskov, M.M., Sokolov, A.V., Charikov, B.A.

TITLE: Optical properties of titanium and vanadium in the infrared spectral region

PERIODICAL: Fizika metallov i metallovedeniye, v.13, no.6, 1962, 823-831

TEXT: Experimental data of the magnitude and frequency dependence of the real and imaginary components of the complex permittivity ε' for titanium, vanadium and gold were studied in the region of 2 to 10 μ, and room temperature. The changes in the state of polarization occurring during reflections from the surfaces of the metals were measured. Mirrors were prepared from 99.99% pure vanadium and titanium iodide by mechanical polishing in an acidic medium. Measurements of static electro-conductivity at room and liquid nitrogen temperatures confirmed the high purity of the samples used. Gold mirror was prepared by vacuum deposition and was used for comparison. Parallel beam of polarized infrared light was reflected in turn from four metallic

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E202/E492

Optical properties of ...

mirror surfaces and the ratio of the parallel and perpendicular
intensities and phase differences of the polarized component were
evaluated.   Emerging from the analyser, the beam was focused on
the slit of the infrared spectrometer type ИКС-12 (IKS-12).
The ellipticity components were evaluated by the method of
parallel polarizers.   Almost complete data of n , k . and the
real ε_1 and imaginary ε_2 , component dependency on frequency
was tabulated at 0.5 μ intervals for Ti, Va and Au.   Plots of
reflectivity and dispersive power versus wavelength were also
included.   The above experimental data were used in a detailed
theoretical analysis of relations existing between the dielectric
permittivity and wavelength, using the elaborate method of
approximating polynomials.   Polynomials satisfying the
experimental data gave the following values for the respective
coefficients:

Titanium: $\varepsilon_1 = -624\lambda^{-4} + 348\lambda^{-2} - 37.2 + 4.62\lambda^2 - 0.0154\lambda^4$;

$$\varepsilon_2 = 43.94\lambda^{-1} + 11.16\lambda + 0.20\lambda^3;$$

(6)

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Optical properties of ...

Vanadium: $\varepsilon_1 = 2.9 + 8.05 \lambda^2 - 0.034 \lambda^4$;

$\varepsilon_2 = -3683 \lambda^{-5} + 2167 \lambda^{-3} - 392 \lambda^{-1} + 33.4 \lambda + 0.139 \lambda^3$; (7)

Gold: $\varepsilon_1 = -16.5 + 37.2 \lambda^2 - 0.12 \lambda^4$; (8)

$\varepsilon_2 = 1.55 \lambda^3 - 0.0024 \lambda^2$.

Detailed contributions of various groups of electrons participating in the above expressions were identified.   The groups of optical electrons found were related to the s- and d-bands.   Current carriers in small d-bands contributed relatively little to conductivity.   Additional data on Hall coefficient confirmed two types of carriers with the conductivity in the d-band being of the hole type.   In the case of gold, similar results were obtained by means of the simple method of equalization, which proved the reliability of the method of approximating polynomials.   There are 6 figures and 2 tables.

Card 3/4

Optical properties of ...

S/126/62/013/C06/002/018
E202/E492

ASSOCIATION: Institut fiziki metallov AN SSSR
(Institute of Physics of Metals AS USSR)

SUBMITTED: January 17, 1962

Card 4/4