

MARTYNYUK, A.G. [Martyniuk, A.H.]

Reflex influences from urinary organs on the cardiovascular system in man. Fiziol.zhur. [Ukr.] 5 no.3:380-385 My-Je '59. (MIRA 12:10)

1. Stalislavskiy medichniy institut, kafedra gosptal'noi khirurgii.
(URINARY ORGANS--INNERVATION) (CARDIOVASCULAR SYSTEM)

KURTSIN, I.T. (Leningrad); ZOLOTARFVSKIY, V.Ya. (Moskva); MARTYNYUK, A.G.,
prof.

Reviews. Sov. med. 27 no.12:120-124 O '64.

(MIRA 18:11)

USSR/Electricity - Substations, High-Voltage
Telemechanics
Jul 51

"Automatization and Telemechanization of High-Voltage System Substations," T. P. Musatov, A. K. Martynyuk, Engineers

"Rabochiy Energetik" No 7, pp 13-16

Describes the pulse-time telemechanization system VRT-48, developed by the Cen Sci Lab, Min of Elec Power Stations and produced by the "Energodetal" Plant. This system can be used for telemechanization of 35-kv distribution substations either from dispatcher points or from the main 110-220-kv
206T49

USSR/Electricity - Substations, High-Voltage (Contd)
Jul 51

substations. Telemechanization of a substation includes (1) remote control, (2) remote signaling, and (3) telemetering.

206T49

МАРТЫНУК, А. К.

MARTYNYUK, A.K.; MUSATOV, T.I.

Electric Relays

Operation of an EI relay with separate winding connections. Elek. stb., 3, 1952.

Monthly List of Russian Accessions, Library of Congress, October 1952. UNCLASSIFIED.

MARTYNYUK, A.K., inzhoner; MUSATOV, T.P., inzhener; GRUDINSKIY, P.G.; LEBEDEVA, V.I.

Electric circuit scheme in the form of a "rectangle." Elek.sta. 24 no.11:43-
46 N '53. (MLRA 6:11)
(Electric circuits)

MARTYHUK, A.K., inzhener.

Testing very damp insulation of stator windings in synchronous machines. Elek. sta. 27 no.2:57-58 P '56. (MLRA 9:6)
(Electric insulators and insulation--Testing)

20-3-5/52

AUTHOR: MARTYNYUK, A.Y.
TITLE: On a Certain Generalization of the Variation Method
 (O nekotom obobshchenii variatsionnogo metoda)
PERIODICAL: Doklady Akademii Nauk SSSR, 1957, Vol. 117, Nr. 3, pp. 374-377 (USSR)
ABSTRACT: Let the linear operator A in the equation

$$(1) \quad Au = f \quad f \in H$$

be defined on a set being dense in H and let it admit the representation

$$(2) \quad A = A_0 A_1$$

where A_0 is selfadjoint and A_1 is closed. The operator A with the representation (2) is called positive in the generalized sense if for every element $u \in D(A)$ being different from zero there holds:

$$(3) \quad (Au, A_1 u) > 0.$$

Let

$$(4) \quad \Phi(u) = (Au, A_1 u) - (A_1 u, f) - (f, A_1 u), \quad u \in D(A).$$

The proposed generalization bases on the

Theorem: If A is positive in the generalized sense, then the

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On a Certain Generalization of the Variation Method

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solution of (1) is equivalent to the determination of that element of $u \in D(A)$ for which the functional $\Phi(u)$ reaches a minimum. A is called positive-definite in the generalized sense if for every $u \in D(A)$ there holds:

$$(5) \quad (Au, A_1u) \geq \gamma^2 \|u\|^2, \quad \gamma > 0$$

$$\|A_1u\|^2 \leq C^2 (Au, A_1u), \quad C > 0.$$

Let the operator A being positive-definite in the generalized sense be defined on the set $M = D(A)$ being dense in H . Let the scalar product in M be

$$(6) \quad [u, v]_1 = (Au, A_1v) \quad u, v \in M.$$

Let the closure of M in the sense of the metric (6) be the space H_1 .

Theorem: All elements of H_1 belong to H too.

Theorem: In order that the sequence $\{\varphi_n\}$, $\varphi_n \in D(A)$ is complete in H_1 it is sufficient that $\{A\varphi_n\}$ is complete in H .

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On a Certain Generalization of the Variation Method

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Let the sequence $\{u_n\}$, $u_n \in D(A)$ have the property that

$$\lim_{n \rightarrow \infty} \Phi(u_n) = \inf \Phi(u)$$

Theorem: If A is positive-definite in the generalized sense, then every sequence $\{u_n\}$ with the above property in the space H_1 converges to an element which gives a minimum to the functional $\Phi(u)$.

Theorem: If A is positive-definite in the generalized sense, then the Ritz method converges for (1) in H_1 .

Here, in the last theorem, the Ritz method means a certain generalization of the classical method.

2 Soviet and no foreign references are quoted.

ASSOCIATION: Omsk State Pedagogical Institute im. A.M. Gor'kiy (Omskiy gosudarstvennyy pedagogicheskiy institut im. A.M. Gor'kogo)
PRESENTED: By S.L. Sobolev, Academician, 31 May 1957
SUBMITTED: 28 November 1956
AVAILABLE: Library of Congress
Card 3/3

16(1)
AUTHOR:

Martynyuk, A. Ye. (Omsk.)

307 32-02-1-1-2

TITLE:

Some New Applications of the Methods of the Type of Galerkin

PERIODICAL:

Matematicheskii sbornik, 1959, Vol 49, Nr 1, pp 85-108 (USSR)

ABSTRACT:

The author investigates the method of B.G. Galerkin generalized by G.I. Petrov [Ref 7] and N.I. Fel'skiy [Ref 8], for the special case where this generalization is equivalent to the momentum method of N.M. Krylov. The author gives several examples for this method, called the Galerkin-Krylov-method, e.g. the solution of

$$(-1)^{l-1} u^{(n)} + \sum_{k=0}^1 p_k(x) u^{(k)} = f(x), \quad l = \frac{n+1}{2}$$

$$u(a) = u'(a) = \dots = u^{(l-1)}(a) = 0, \quad u'(b) = u''(b) = \dots = u^{(l-1)}(b) = 0.$$

It is proved that the region of applicability of the method is essentially greater than that of the Galerkin-method.- The author thanks S.G. Mikhlin for the revision of the manuscript. He mentions G.A. Zhdanov, and S.L. Sobolev. There are 9 Soviet references.

SUBMITTED: December 16, 1957
Card 1/1

68144

SOV/20-129-6-7/69

16(T) 16.3500

AUTHOR: Martynuk, A.Ye.

TITLE: Variational Methods in Boundary Value Problems for Weakly Elliptic Equations ✓

PERIODICAL: Doklady Akademii nauk SSSR, 1959, Vol 129, Nr 6, pp 1222-1225 (USSR)

ABSTRACT: The author considers boundary value problems with vanishing boundary conditions for the equation

$$(7) \quad A_0 u = \sum_{i=0}^1 \sum_{k=0}^1 (-1)^i \frac{\partial^1}{\partial x^{1-i} \partial y^i} \left(a_{ik}(x,y) \frac{\partial^1 u}{\partial x^{1-k} \partial y^k} \right) + a_0(x,y)u = f(x,y)$$

and similar problems under the supposition that A_0 is weakly elliptic, i.e. if

$$(4) \quad \sum_{i,k=0}^1 a_{ik} \xi_i \xi_k \geq \mu \left(\sum_{k=0}^1 c_1^{(k)} \xi_k \right)^2$$

is satisfied for arbitrary real ξ_i and all $x,y \in D$ (domain in which (7) is considered), where $c_1^{(k)}$ are binomial coefficients. ✓

Card 1/2

68144

Variational Methods in Boundary Value Problems for Weakly Elliptic Equations

SOV/20-120-6-7/62

The author proves the convergence of the methods of Ritz-Krylov, Galerkin, Galerkin-Krylov. The method can also be extended to boundary value problems for

$$Lu = \sum_{h=1}^l \sum_{i=0}^{h-1} \sum_{k=0}^h (-1)^{h-1} \frac{x^{h-1-i} y^i}{x^{h-1-i} y^i} a_{ik}^{(h)}(x,y) \frac{u}{x^{h-k} y^k} = f(x,y)$$

if L is weakly elliptic in $\Omega = \Omega_0 + S$. There are 3 Soviet references.

ASSOCIATION: Omskiy pedagogicheskiy institut imeni A.M. Gor'kogo (Omsk Pedagogical Institute imeni A.M. Gor'kiv)

PRESENTED: February 28, 1959, by S.L. Sobolev, Academician

SUBMITTED: February 4, 1959

Card 2/2

85929

S/140/60/000/003/008/011
C111/C222

16.3400

AUTHOR: Martynyuk, A.Ye.

TITLE: Application of the Galerkin-Method and the Galerkin-Momentum-Method to Some Partial Differential Equations of the Type of I.N.Vekua.

PERIODICAL: Izvestiya vysshikh uchebnykh zavedeniy. Matematika, 1960,
Nr.3, pp.188-204

TEXT: § 1 has an introducing character. For the proof of the convergence of the method of Galerkin for equations of the type

(1) $Au + Ku = f, f \in H, D(K) \supset D(A)$

the author recommends the scheme of S.G.Mikhlin (Ref.4): It has to be proved that 1) the operator A is positive definite and selfadjoint on a certain set of functions and 2) the operator $T = A^{-1}K$ is completely continuous in a certain Hilbert space H_0 which corresponds to A . Besides,

the author proves the auxiliary theorem: Let the finite region Ω of the (x,y) -plane be bounded by a smooth, central symmetrical curve S . Then the inequation

(4)
$$\int_{\Omega} (\delta u)^2 d\Omega \geq \delta^2 \int_{\Omega} u^2 d\Omega, \delta > 0$$

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85929

S/140/60/000/003/008/011
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Application of the Galerkin-Method and the Galerkin-Momentum-Method to
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is valid for every functi on $u(x,y)$ continuous in $\bar{\Omega} = \Omega + S$ together with
 $\delta u = \frac{\partial u}{\partial x} + \frac{\partial u}{\partial y}$ and vanishing on S .

In § 2 the author considers the boundary value problem

$$(L) \quad (-1)^s \delta^m u + \sum_{k=0}^{m-1} a_k(x,y) \delta^k u = f(x,y), \quad m \geq 1$$

$$s = \begin{cases} 1, & m \text{ even} \\ 1-1, & m \text{ odd} \end{cases}, \quad l = \left[\frac{m+1}{2} \right],$$

$$(1) \quad u|_S = 0, \delta u|_S = 0, \dots, \delta^{l-1} u|_S = 0 \quad \text{for } m \text{ even}$$

$$(2) \quad u|_{S_1} = 0, \delta u|_S = 0, \dots, \delta^{l-1} u|_S = 0 \quad \text{for } m \text{ odd.}$$

It is assumed: 1) Ω is bounded by a smooth central symmetrical curve S ;
 S_1 be one of the halves of S which one obtains by cutting S with a straight
line $y = -x + \alpha$, where α is chosen so that this straight line passes through
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S/140/60/000/003/008/011
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Application of the Galerkin-Method and the Galerkin-Momentum-Method to Some Partail Differential Equations of the Type of I.N.Vekua

the center of symmetry of S; 2) the coefficients a_0 to a_1 are continuous, the a_{1+1} to a_{m-1} are sufficiently often differentiable in $\overline{\Omega}$. If m is odd, then let besides be

$$(3) \quad \delta^h a_{k+h}(x,y) \Big|_{S-S_1} = 0; \quad k = 1+1, 1+2, \dots, m-h-1; \quad h=0, 1, \dots, 1-3.$$

3) $f(x,y)$ be continuous in $\overline{\Omega}$; 4) The boundary value problem has a unique solution. Under these assumptions the author investigates the convergence of the method of Galerkin (for m - even) and the momentum method of Galerkin (for m - odd) for the application to the given problem. The author

denotes: $Au = (-1)^s \delta^m u$, $A_1 u = \delta u$, $Kf = \sum_{k=0}^{m-1} a_k(x,y) \delta^k u$. The region of

definition of A is the set $M_0(M_1)$ of the functions continuous in $\overline{\Omega}$ together with $\delta^m u$ and satisfying (1) (resp.(2)). If m is even, then with the aid of the above auxiliary theorem it is shown that A on M_0 is positive definite

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S/140/60/000/003/008/011
C111/C222

Application of the Galerkin-Method and the Galerkin-Momentum-Method to
Some Partial Differential Equations of the Type of I.N.Vekua

and selfadjoint (in the sense of Lagrange)¹⁶. If m is odd, then A is
positive definite on M_1 in the generalized sense; according to the author

(Ref.2), for the proof of convergence of the momentum method of Galerkin,
this replaces the first claim of Mikhlín (Ref.4) (cf. above). Now the author
introduces the spaces H_0 (resp. H_1) with the scalar product $[u, v]_0 = (Au, v) -$

$= (-1)^s (\delta^m u, v)$; $u, v \in M_0$ (resp. $[u, v]_1 = (A_1 u, v) - (-1)^s (\delta^m u, \delta v)$; $u, v \in M_1$)

and it is stated that the operator $T = A^{-1}K$ is completely continuous in
 H_0 (resp. H_1). Herewith the convergence of the investigated methods is

proved for an application to the formulated boundary value problem.
Uniform convergence holds only for $m \geq 3$. An effective construction of the
Green's function of the operator A is given for $m=2, m=3$, where a
coordinate system is used which is turned by 45° .

In § 3 the author proves, with the same scheme, the convergence of the
method of Galerkin for the boundary value problem

Card 4/6

85929
S/140/60/000/003/008/011
C111/C222

Application of the Galerkin-Method and the Galerkin-Momentum-Method to
Some Partial Differential Equations of the Type of I.N.Vekua

$$(M) \quad (-1)^n \Delta^n u + \sum_{k=1}^n L_k (\Delta^{n-k} u) = f(x, y), \quad n \geq 1,$$

where $L_k = \sum_{\alpha \leq k} a_k^{pq}(x, y) \frac{\partial^\alpha u}{\partial x^p \partial y^q}$, $p+q = \alpha$ with the boundary condition

$$(1) \quad u|_S = 0, \quad \frac{\partial u}{\partial x}|_S = 0, \quad \frac{\partial u}{\partial y}|_S = 0, \dots, \quad \frac{\partial^{n-1} u}{\partial x^{n-k-1} \partial y^k}|_S = 0, \quad k=0, 1, \dots, n-1.$$

Furthermore with the same scheme, for

$$(N) \quad (-1)^n \delta^{2n} u + \sum_{k=1}^n L_k (\delta^{2(n-k)} u) = f(x, y), \quad n \geq 1$$

and (1) the proof of convergence of the method of Galerkin is given.

Card 5/6

85899
S/140/60/000/003/008/011
C111/C222

Application of the Galerkin-Method and the Galerkin-Momentum-Method to
Some Partial Differential Equations of the Type of I.N.Vekua

The author mentions I.N.Vekua. There are 4 Soviet references.

[Abstracter's note: In each of the three paragraphs the numbering of
formulas begins with (1) so that the same number has a different meaning
in each paragraph.

(Ref.2) is a paper of the author in Doklady Akademii nauk SSSR, 1957,
Vol.117, No.3; (Ref.4) is a paper of S.G.Mikhlin in Uspekhi matematiches-
kikh nauk, 1950, Vol.5, No.6]

ASSOCIATION: Omskiy pedagogicheskiy institut imeni A.M.Gor'kogo (Omsk
Pedagogical Institute imeni A.M.Gor'kiy)

SUBMITTED: September 12, 1958

Card 6/6

MARTYNYUK, A. YE.

Cand Phys-Math Sci, Diss -- "On the problem of expanding the scope of linear problems solved by Galerkin-type methods". Omsk, 1961. 7 pp, 22 cm (Min of Higher and Inter Spec Educ RSFSR. Kazan' Order of the Red Labor Banner State U imeni V. I. Ul'yanov-Lenin), 120 copies, Not for sale, 11 ref in bibl at end of text (KL, No 9, 1961, p 175, No 24256). 61-548487

MARTYNYUK, A. Ye.

Solution to a fundamental boundary value problem for certain
linear even-order partial differential equations. Dokl. AN
SSSR 147 no.6:1288-1291 D '62. (MIRA 16:1)

1. Predstavleno akademikom S. L. Sobolevym.

(Differential equations, Partial)
(Boundary value problems)

MARTINDALE, J. Ye.

new criteria of ...
pro: nations. ...

L-5403-66 EWT(d)/T/EWP(1) IJP(c)

ACC NR: AR6016620

SOURCE CODE: UR/0044/65/000/012/B118/B118

AUTHOR: Martynyuk, A. Ye.

32B

TITLE: Certain new criteria for convergence of the method of successive approximations

SOURCE: Ref. zh. Matematika, Abs. 12B622

REF SOURCE: Uch. zap. Kazansk. un-t, v. 124, no. 6, 1964, 183-188

TOPIC TAGS: successive approximation, approximation convergence, operator equation

ABSTRACT: The author establishes general criteria for direct application of the method of successive approximations to a fairly wide class of operator equations with unbounded operators. Let A be a positive definite (in the generalized sense) operator, with domain of definition $D(A)$ dense in H , which can be represented in the form of the product

$$A = A_0 A_\alpha \quad (1)$$

where A_0 is a self adjoint and A_α a closed operator. Corresponding to the operator A , one introduces the auxiliary Hilbert space H_α with norm

$$\|u\|_\alpha^2 = (Au, A_\alpha u), u \in D(A) \quad (1A)$$

and considers the linear equation

$$Au + Ku = f, D(K) \supset D(A), f \in H. \quad (2)$$

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UDC: 518:517.948

L 45403-66

ACC NR: AR6016620

To establish conditions for unique solvability of equation (2) and to find approximate solutions to (2), one uses the method of successive approximations. The following theorem is proven: Let A be a positive definite (in the generalized sense) operator represented in the form (1), and let K be a closed operator satisfying the condition

$$\|Ku\|^2 < \frac{q^2}{\|A_0^{-1}\|^2} (Au, A_0 u), \quad 0 < q < 1; \quad (3)$$

then equation (2) is uniquely solvable, and the method of successive approximations for this equation converges in the space H_α . Varying the operator A_α , one can obtain various special forms of inequality (3), which is a simple and practical criterion for unique solvability of linear differential equations of form (2) and convergence of the given method of successive approximations for these equations. A convenient formula is obtained for estimating error. Some applications of the theorem to ordinary linear differential equations are given (2nd and 3rd order equations are investigated). A numerical example is presented which shows that in the given case convergence of the method of successive approximations is faster than convergence of the method of Galerkin. Bibliography of 5 titles. I. Shelikhova [Translation of abstract]

SUB CODE: 12

hs

Card 2/2

ACC NR: AF7009573

SOURCE CODE: UR/0140/66/000/006/0085/0094

AUTHOR: Martynyuk, A. Ye. (Zhitomir)

ORG: none

TITLE: Certain approximation methods of solving non-linear equations with unbounded operators

SOURCE: IVUZ. Matematika, no. 6, 1966, 85-94

TOPIC TAGS: approximation method, mathematic operator

SUB CODE: 12

ABSTRACT: In an earlier paper the author presented a method for successive approximations of the equation $Au + Ku = f$, $D(K) \supset D(A)$, $F \in H$, related only to the highest operator A , which he calls the method of A -successive approximations (simply, the A -method). In this paper he established the convergence criteria of the A -method for the operator equation: $Au - Ku = f$, $D(K) \supset D(A)$, $f \in H$, (1) with a generally linear operator K . The element $u_0 = A^{-1}f$ is taken as the zero approximation of equation (1), and the Galerkin-Krylov method is combined with the successive approximation method and applied to (1) both in the usual way and in the A -form. The inverse operation A^{-1} is definite in the entire Hilbert space H , which is real, complete, and separable. The methods evolved are applied to an ordinary second-order equation such as (1). Two theorems are given which can be applied to other nonlinear differential equations of the form (1) of any order including the first. Orig. art. has: 32 formulas. JPRS: 40,050

Card 1/1

UDC: 519.55+517.432

MARTYNYUK, B.F., inzh.-mekhanik

Special aspects of the performance of KhTZ-UNDIMESG fuel pumps.
Mekh. sil'. hosp. 12 no. 1:15-17 Ja '61. (MIRA 14:1)
(Fuel pumps)

MARTYNUK, D. F.

"Poisonous plants of the Far East".

Blagoveshchensk. Amurizdat. 1952. 160 pages with illustrations.

SO: Vet., July 1952, Unclassified.

'ARTYNYUK, D. F.

Far-Eastern Zonal Sci Res Vet Institute

Cattle - Disease

Scurvy in Cattle., Veterinaria, 29, No. 2, 1952. page 21

9. Monthly List of Russian Accessions, Library of Congress, April 1953/2 Unclassified.

L 05385-67 EWT(d)/EWP(v)/EWP(k)/EWP(h)/EWP(l)

ACC NR: AP6024533

SOURCE CODE: UR/0041/66/018/004/0117/0121

AUTHOR: Martynyuk, D. I. (Kiev); Podchuk, V. I. (Kiev)

ORG: none

TITLE: Asymptotic integration of quasilinear self-regulating systems with delay

SOURCE: Ukrainskiy matematicheskiy zhurnal, v. 18, no. 4, 1966, 117-121

TOPIC TAGS: automatic regulation, asymptotic solution, ordinary differential equation

ABSTRACT: The method of N. N. Bogolyubov (*Sb. tr. in-ta stroitel'noy mekhaniki, AN SSSR, Vol. 10, 1949*) for constructing asymptotic solutions of quasilinear self-regulating systems with many degrees of freedom when the characteristic equation of the generating system has one pair of critical (imaginary) roots is extended to the case of quasilinear self-regulating systems having many degrees of freedom and also a time delay. The system considered is

$$\frac{dx_s}{dt} = a_{s1}x_1(t) + \dots + a_{sn}x_n(t) + b_{s1}x_1(t-\Delta) + \dots + b_{sn}x_n(t-\Delta) +$$

$$+ \mu f_s(x_1(t), x_2(t), \dots, x_n(t), x_1(t-\Delta), \dots, x_n(t-\Delta), \mu),$$

$$(s = 1, 2, \dots, n),$$

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I 05186-67

ACC NR: AP6024533

along with the characteristic equation

$$D(\lambda) \equiv |a_{ij} + b_{ij}e^{-\lambda\Delta} - \delta_{ij}\lambda| = 0$$

Orig. art. has: 29 formulas.

SUB CODE: 12/²⁰ SUBM DATE: 17Aug65/ ORIG REF: 004/ OTH REF: 001

Card 2/2

hkh

MARTYNYUK, F.; KIPCHUK, T., inzh.

We increase the production of silicate brick. Sil'.bud. 12
no.7:15-16 J1 '62. (MIRA 15:8)

1. Predsedatel' soveta Dzerzhinskogo mezhkolkhozstroya Zhitomirskoy
oblasti (for Martynyuk).
(Sand-lime brick)

MARTYNYUK, Fedor Nikitovich

[Socialist industrialization of the Ukraine] Sotsialistychna
industrializatsiia Ukrainy. Kyiv, Derzh.vyd-vo polit.lit-ry;
URSR, 1959. 134 p. (MIRA 13:3)
(Ukraine--Industries)

MARTYNYUK, G.F.

Volumetric method for determining water vapors in gases.
Zav.lab. 31 no.3:332-333 '65.

(MIRA 18:12)

MARTYNYUK, G.F.; KOROBKO, M.I.; KISELEV, Yu.Ye.

Determining the technological parameters of open-hearth
furnace smelting by means of controlling the furnace atmosphere.
Met. i gornorud. prom. no.3:22-25 My-Je '65.

(MIRA 18.11)

FEDORCHENKO, I.M.; KOROBKO, M.I.; PUGIN, V.S.; MARTYNYUK, G.F.; KORNİYENKO,
P.A.; KISELEV, Yu.Ye.

Using ceramic metal filters for the purification of samples
of flue gas from open-hearth furnaces. Porosh. met. 5 no.10:
100-106 0 '65. (MIRA 18:11)

1. Institut problem materialovedeniya AN UkrSSR.

I 12797-63 EWP(g)/EWT(m)/BDS AFFTC/ASD JD

ACCESSION NR: AP3000773

S/0070/63/008/003/0405/0412

AUTHOR: Tyapumina, N. A.; Predvoditslev, A. A.; Marty*nyuk, G. K.; Shvidkovskiy,
Ye. G. 58
57TITLE: Investigation of dislocation structure and the propagation of dislocations
in cadmium crystals

SOURCE: Kristallografiya, v. 8, no. 3, 1963, 405-412

TOPIC TAGS: Frank-Read source, hexagonal crystals, Cd, dislocations, Burgers
vector, slip band

ABSTRACT: Because the literature is unclear on how points are provided for pinning dislocations to supply a beginning for a Frank-Read source, the authors have undertaken an analysis of possible intersections and interactions of dislocations in hexagonal crystals. They have made experimental tests by selective etching to determine dislocations, and they conclude that hexagonal crystals have favorable conditions for the formation of points that pin dislocations during plastic deformation. They conclude further that the restraint on dislocations to move in planes of the prism or the second-order pyramid considerably exceeds the restraint on movement in the basal plane, which impedes transverse slipping. Thus, during plastic deformation in hexagonal crystals, dislocations apparently

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L 12797-63
ACCESSION NR: AP3000773

occur chiefly by operation of a Frank-Read source, and this leads to the experimentally observed localization of slip bands. Orig. art. has: 4 figures, 3 formulas, and 2 tables.

ASSOCIATION: Moskovskiy gosudarstvennyy universitet im. M. V. Lomonosova
(Moscow State University)

SUBMITTED: 06Jul62

DATE ACQ: 21Jun63

ENCL: 00

SUB CODE: 00

NO REF SOV: 007

OTHER: 014

Card 2/2

FROLOV, V.A.; MARTYNYUK, I.N.

laying and removal of rails with a rail-laying crane. Puti i put.
khoz. no.4:26 Ap '59. (MIRA 13:3)

1.Glavnyy mekhanik putevoy mashinnoy stantsii - 6, stantsiya Verkhovtse-
vo, Stalinskoy dorogi (for Frolov). 2.Nachal'nik kolonny, stantsiya Ver-
khovtsevo, Stalinskoy dorogi (for Martynyuk).
(Railroads--Track)

USSR/Farm: Animals. The Swine

Q-4

Abs Jour : Ref Zhur -- Biol., No 11, 1958, No 50060

Author : Martynyuk, K.A.

Inst : Far Eastern Scientific Research Institute of Farming

Title : Utilizing Fish Silage for Fattening of Swine.

Orig Pub : Byul. nauchno-tokhn. inform. Dal'nevo t. nvi. in-ta s. kh.
1957, 3, 33-34

Abstract : One group of pig, chosen for being fattened, was given corn-fish silage (50 percent of corn, 50 percent of fresh fish), and the second group of pig was fed corn-fish silage in layers (70-80 cr of corn, 20-30 cr of fish). The third group of pigs served as a control group. Average daily weight gain amounted to 528 gr, 573 gr, and 520 gr for each group, respectively. Fodder expenditures per each kg of weight increase amounted to 6.0, 6.9, and 7.2 feed units for each of the 3 groups, respectively.

Card : 1/1

51

20 11 1975
HUDAKOV, A.P.; MARTYNYUK, K.D.

Successful use of Dubrov's nail simultaneously in both hips.
Ortop.travm. i protez. no.3:70-71 My-Je '55 (MLRA 8:10)

1. Iz khirurgicheskogo otdeleniya (zav. A.P.Rudakov) Kamensk-Shakhtinskoy gorodskoy bol'nitsy (glavnyy vrach--I.I.Leyko)

(HIP, fractures,

surg., intramedullary nailing, bilateral)

(FRACTURES,

hip, surg., intramedullary nailing, bilateral)

MARTYHYUK, K.D.

Device for the removal of Dubrov's nail. Ortop.travn. i protez. 18
no.6:43 N-D '57. (MIRA 11:4)

1. Iz khirurgicheskogo otdeleniya (zav. - A.P.Rudakov) Kamenskoy
gorbol'nitsy (glavnyy vrach - I.I.Leyko)
(ORTHOPEDECS, appar. and instruments
device for removal of Dubrov's nail)

~~MARTYNYUK, E.D.~~

Surgical treatment of osteoarticular tuberculosis in a hospital serving several districts [with summary in French]. Probl.tub. 36 no.3:44-46 '58 (MIRA 11:5)

1. Iz khirurgicheskogo otdeleniya (zav. A.P. Rudakov) Kamenskoy gorodskoy bol'nitsy (glavnyy vrach I.I. Leyko). (TUBERCULOSIS, OSTROARTICULAR, surg. indic. & results (Rus))

MARTYNYUK, K.D.

Reconstructive resection of the hip joint in tuberculous
coxitis. Probl. tub. 40 no.6:104-105'62 (MIRA 16:12)

1. Iz ortopedo-travmatologicheskogo otdeleniya (zav. K.D.
Martynyuk) Kamenskoy gorodskoy bol'nitsy (glavnyy vrach
I.I.Leyko).

RYABOKON', Ye.A. (Arkhangel'sk, naberezhnaya Lenina, d. 93, kv.6);
MARTYNYUK, K.D. (Kamensk-Shakhtinskiy, Arsenal'naya ul., d. 57-b);
LOPATINA, M.A. (Irkutsk, ul. Timiryazeva, d. l., kv. 51);
SAGDULLAYEV, N. (Andizhan, UzbSSR, Bukharskaya ul., d. l, kv. 9)
ISAAKYAN, I.G., prof.; KRISTOSTURYAN, T.L., kand.med.nauk

Abstracts of articles received by the editors. Ortop. travm.
i protez. 24 no.2:78-80 F'63. (MIRA 16:10)

1. Iz travmatologicheskogo punkta Arkhangel'ska (zav. - G.L. Chernyakovskaya) i kafedry operativnoy khirurgii (zav. - prof. S.I. Yelizarovskiy) Arkhangel'skogo meditsinskogo instituta (for Ryabokon'). 2. Iz ortopedo-travmatologicheskogo otdeleniya (zav. K.D. Martynyuk) Kamensk-Shakhtinskoy gorodskoy bol'nitsy (for Martynyuk). 3. Iz khirurgicheskogo otdeleniya (zav. - kand.med.nauk. Ya.D. Vitebskiy) Kurganskoy oblastnoy bol'nitsy (for Lopanina). 4. Iz kafedry operativnoy khirurgii s topografi-cheskoy anatomiyey (zav. - kand.med.nauk B.G. Ganiyev) Andizhanskogo meditsinskogo instituta (for Sagdullayev). 5. Iz Yerevanskogo instituta travmatologii i ortopedii (dir. - prof. I.G. Isaakyan) (for Isaakyan, Kristotsturyan).

*

MARTYNYUK, K.D. (Kamensk-Shakhtinskiy, Arsenal'naya ul. d. 57-v.)

Methodology of the fixation of tibiofibular syndesmosis. Ortop., travm.
i protez. 25 no.2:70-72 F '64. (MIRA 18x2)

1. Iz ortopedo-travmatologicheskogo otdeleniya (zav. - V.G.Shermoshekov)
Kamensk-Shakhtinskoy gorodskoy bol'nitsy (glavnyy vrach G.M.Merzlyakov).

MARTIN YUK, L.A.

U S S R ✓ 5509. ELECTRICAL CONDUCTIVITY OF UNSTEADY FLAME AT REDUCED PRESSURE.
 Rogalskii, V.B., Potomovskii, A.A., Martynuk, L.A., AND Taikora, I.L.
 (Nauch. Zap. Dnepropetrovsk. Gos. Univ., Ser. Fiz.-mat. Nauk. (Sci. Notes Dnepropetrovsk. Gos. Univ., Ser. Phys.-math. Sci.)), 1953, vol. 41, 9-12; abstr. in Ref. Zh. Khim. (Ref. J. Chem., Moscow), 1954, (17), 39282). Experiments in 1953 had shown that conductivity of flames in acetylene/air mixtures depends mainly on conductivity of the inner cone. Experiments are now recorded with a moving flame in a cylinder of 15 mm diameter and 80 mm length with two longitudinal condenser plates of 0.0075 micro F capacity charged to 100 V. The charge remaining in the condenser after it had been discharged to V_0 on the passage of the flame was measured with a ballistic galvanometer, and the time spent by the flame between the electrodes was calculated from $V_0 = 100 \exp(-t/RC)$. The minimum time corresponded to 12% acetylene and maximum current to 10-12% acetylene. Change in current and in number of charged particles with pressure up to 380 mm mercury is expressed by $I \sim p^2$, which is evidence of the bimolecular character of the ionization process. This and the lack of correspondence between change in current on the one hand and composition and temperature of flame on the other indicates the importance of chemical reaction in the process of ionization.

Handwritten initials/signature

MARTINYUK, Marina Aleksandrovna; VAGANOVA, H.A., redaktor; SUDAK, D.M.,
tehnicheskii redaktor.

[Self-service in student dining halls] Sameobsluzhivanie v studenche-
skoi stelevi. Moskva, Gos. izd-vo tsergevoi lit-ry, 1954. 19 p.
(Restaurants, lunch rooms, etc.) (MLRA 9:4)

GERMANYUK, Ya.I. [Hermaniuk, I.A.I.]; LETCHENKO, O.Yu.; MARTYNYUK, M.N.
[Martyniuk, M.M.]

Effect of pyrodovine, insulin and glucose on the transaminase
activity of the erythrocytes of various animals in vitro. Ukr.
biokhim. zhur. 34 no.3:417-423 '62.

(MIRA 18:5)

1. Kafedra organicheskoy i biologicheskoy khimii L'vovskogo
zooveterinarnogo instituta.

S/250/63/007/003/006/006
A059/A126

AUTHORS: Martynyuk, M.M., Machionis, Z.A., Yerofeyev, B.V., Semenchko, V.K.

TITLE: Compressibility of polystyrene and poly- α -methylstyrene and its dependence on the molecular weight

PERIODICALS: Doklady Akademii nauk BSSR, v. 7, no. 3, 1963, 170 - 173

TEXT: The temperature dependence of the compressibilities of polystyrenes of the molecular weights of 1,000, 4,100, 7,300, 23,900, 37,500, 141,000, and 613,900, and of the poly- α -methyl styrenes of the molecular weights of 606,800 and 54,800 was measured by way of reducing the pressure in the range from 400 to 200 kg/cm², as described by M.M. Martynyuk and V.K. Semenchko (Kolloidnyy zhurnal, v. 25, no. 2, 1963). The monomers were subjected to anionic polymerization according to Schwarz, and their molecular weights measured in toluene with an Ubbelohde-type viscometer described by S.R. Rafikov (Vysokomolekulyarnyye soyedineniya, v. 1, 1,558, 1959), while those of the polymers up to 7,300 were determined cryoscopically in benzene. The polystyrene samples were pressed and slowly cooled at 400 kg/cm² and 180 to 220 C in dependence on the molecular

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Compressibility of polystyrene and

S/250/63/007/003/006/006
A059/A126

weight, and at 260° C for poly- α -methyl polystyrene. Thermal destruction of the polymers was 18% on the average, the structures being completely amorphous according to x-ray data. The three highest-molecular polystyrenes and the poly- α -methyl styrenes showed practically uniform compressibilities. Three temperature regions were established on the compressibility curves, namely a) that of low compressibility independent of temperature; b) the intermediate one with a fast increase of compressibility with temperature; and c) that of high compressibility showing a linear increase with temperature. The compressibilities of polystyrenes with molecular weights in excess of 30,000 can be given for temperatures above 110° C by the equation:

$$- 10^6 \left(\frac{\partial v}{\partial p} \right)_T = (t - 110) 0.233 + 49 ,$$

where t is given in °C, and

$$- \left(\frac{\partial v}{\partial p} \right)_T = \frac{1}{M} \left(\frac{\partial V}{\partial p} \right)_T \text{ cm}^3/\text{g-atm} ,$$

with v being the specific volume and V the volume. The corresponding equation for poly- α -methyl styrene with M in excess of 55,000 and temperatures above

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Compressibility of polystyrene and

S/250/63/007/003/006/006
A059/A126

180°C is

$$-10^6 \left(\frac{\partial v}{\partial p} \right)_T = (t - 180) 0.2 + 52.$$

Three characteristic points are found on the compressibility curve of the amorphous polymers, i.e., a) the end point t_1 of the first region after which the compressibility increases; b) the initial point t_2 of the third region after which a linear dependence of the compressibility is established; and c) the inflexion point t_i , where the compressibility is half the sum of the compressibilities at the points t_1 and t_2 . t_i for polystyrenes of molecular weights in excess of 35,000 is practically independent at about 101°C, while, for lower-molecular polymers, the equation $t_i = 6.6 \ln M + 32$ holds. The polydispersity of the sample was experimentally shown to have no marked effect on the compressibility curve of high-molecular polymers. L.M. Kantorovich and F.M. Rapoport are mentioned. There are 2 figures and 1 table.

ASSOCIATION: Belorusskiy gosudarstvennyy universitet im. V.I. Lenina (Belorussian State University im. V.I. Lenin); Moskovskiy pedagogicheskiy institut im. N.K. Krupskoy (Moscow Pedagogic Institute im. N.K. Krupakaya)

SUBMITTED: December 25, 1962

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s/069/63/025/002/006/010
A057/A126

AUTHORS: Martynyuk, M.M., Semenchko, V.K.

TITLE: Thermodynamics of polymers. 3. Thermodynamic stability of crystalline polymers

PERIODICAL: Kolloidnyy zhurnal, v. 25, no. 2, 1963, 190 - 196

TEXT: The temperature dependence of the isothermal compressibility and the coefficient of thermal expansion of low and high pressure polyethylene, isotactic polypropylene, and polytrifluorochloroethylene has been determined in continuation of earlier investigations (Koll. zh., v. 24, 1962, 328 and 611). For high-pressure polyethylene the temperature dependences of

$$\left(\frac{\partial v}{\partial p}\right)_s, \left(\frac{\partial s}{\partial T}\right)_v, \left(\frac{\partial p}{\partial T}\right)_v, \frac{c_p}{c_v},$$

as well as of the sound velocity and the stability determinant have been calculated. The investigations have confirmed the existence of a mesophase state of the crystalline polymers in the region of their melting temperature. It has been

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Thermodynamics of polymers. 3. Thermodynamic

S/069/63/025/002/006/010
A057/A126

shown that phase transitions of these substances are mesophase transitions. Measurements were done on a special device. The essential features of it are a lever system, which effects the pressure load by means of weights, a micro-indicator for the change of the volume of the sample, and the device for temperature regulation (20 - 300°C). There are 10 figures and 1 table.

ASSOCIATION: Moskovskiy oblastnoy pedagogicheskiy institut (Moscow Regional Pedagogic Institute); Moskovskiy universitet im. M.V. Lomonosova, Fizicheskiy fakul'tet (Moscow University imeni M.V. Lomonosov, Physical Department)

SUBMITTED: May 29, 1962

Card 2/2

MARTYNYUK, M.M.; SEMENCHENKO, V.K.

Thermodynamics of polymers. Part 4: Compressibility of amorphous
polymers. Koll.zhur. 26 no.1, 1964 Ja-F '64. (MIRA 17:4)

1. Moskovskiy oblastnoy pedagogicheskiy institut i Moskovskiy
universitet, fizicheskiy fakul'tet.

MARTYNYUK, M.M.

Volume relaxation and bulk viscosity of polystyrene in the softening region. Vysokom. soed. 7 no.11:1978-1980 N '65. (MIRA 19:1)

1. Universitet druzhby narodov imeni P. Lumumby. Submitted December 28, 1964.

BASKAKOVA, V.B.; GOLVIN, A.V.; MARTYNYUK, M.M.; SEMENCHENKO, V.K.

Calculation of the speed of sound from the isodynamic coeff. β and the determinant of the stability of a substance. Akust. zh. 11 no.1:30-34 1965. (MIRA 1965)

1. Moskovskiy gosudarstvennyy universitet.

PEYKO, Ya.; MARTYNYUK, N. inzh.

A word about the brakes of the Tu-104 airplane. Grazhd. av. 22
no.5:20-21 My '65. (MIRA 18:7)

1. Nachal'nik laboratorii Gosudarstvennogo nauchno-issledovatel'skogo
instituta Grazhdanskoy aviatsii. (for Peyko).

MARTYNYUK, N.I.

Dynamics of endopolymerization in human ribs. Appl. anat., histol. Embryol. 40 no.4:48-51 Apr '64. (SIR) 10:5

1. Kafedra gistologii (zav. - dozent N.I. Martynyuk) Ikhul'skogo meditsinskogo in-stituta. Adres aut. raz. Ikhutsk, ul. Arsen'eva 40, 1. Meditsinskoy institut, kafedra gistologii.

78-3-4-3/38

AUTHORS: Smiryagin, A. P., Potenkin, A. Ya.,
~~Martynuk, R. P.~~

TITLE: Investigation of the Phase Diagram Nickel-Molybdenum-Chromium
(Issledovaniye diagrammy sostoyaniya nikel'-molibden-khrom)

PERIODICAL: Zhurnal Neorganicheskoy Khimii, 1958, Vol. 3, Nr 4,
pp. 853-859 (USSR)

ABSTRACT: The nickel corner in the phase diagram of the system Ni-Mo-Cr
(up to 40% molybdenum and up to 40% chromium) was investigated
using the thermal and microscopic analysis.
Eight polythermal sections of the nickel corner in the phase
diagram nickel-molybdenum-chromium were constructed. The phase
composition and the hardness of the alloys were investigated
at temperatures of 1270°, 1200°, 950°, 800° and 700°C. The
saturation limit of the ternary solid solution of the
basis of nickel was determined at temperatures of 700°, 800°,
950° and 1000°C.
It was shown that with a drop of temperature the solubility
of molybdenum and chromium in nickel decreases markedly. Also
the sectional diagrams with a constant content of
4%, 8,5%, 3,5% and 20% of chromium were constructed.

Card 1/2

Investigation of the Phase Diagram Nickel-Molybdenum-Chromium 78-3-4-3/38

The hardness and the temperature coefficient of the electric resistance of three-component alloys was investigated in the following states: after annealing and after hardening at 1200°, 950°, 800° and 700°C. Also the hardness of the cast alloys in vacuum was determined at temperatures of 20°, 200°, 300°, 400°, 500°, 600°, 700°, 800°, 900° and 1000°C. There are 10 figures, 1 table, and 13 references, 1 of which is Soviet.

ASSOCIATION: Gosudarstvennyy nauchno-issledovatel'skiy i proyektnyy institut obrabotki tsvetnykh metallov, Moskva (Moscow, State Scientific Research Institute for Working Non-Ferrous Metals)

Card 2/2

SMIRYAGIN, A.P.; MARTYNYUK, R.P.

Investigating the system Cu - Si - Mn. Issl. splav. tsvet. met.
no.3:98-107 '62. (MIRA 15:8)
(Copper-silicon-manganese alloys)

SHIRYAGIN, A.P.; MARTYNIUK, R.P. [deceased]

Changes in the microhardness of industrial titanium and the VT-5D alloy depending on heat treating conditions. Trudy Giprotvetmetobrabotka no.24:325-332 '65. (MIRA 18:11)

L 24431-66 EWT(m)/EWP(w)/ENA(d)/T/EWP(t) IJP(c) JD

ACC NR: AT6006485

SOURCE CODE: UR/2680/65/000/024/0324/0332

AUTHORS: Smiryagin, A. P.; Martynyuk, R. P. (deceased)

42
B+

ORG: State Scientific Research and Design Institute of Alloys and Nonferrous Metalworking, Moscow (Gosudarstvennyy nauchno-issledovatel'skiy i proyektnyy institut splavov i obrabotki tsvetnykh metallov)

TITLE: Change of microhardness¹⁸ of technical titanium and alloy VT-5D as a function of the thermal treatment conditions

57 18

SOURCE: Moscow. Gosudarstvennyy nauchno-issledovatel'skiy i proyektnyy institut splavov i obrabotki tsvetnykh metallov. Trudy, no. 24, 1965. Metallovedeniye i obrabotka tsvetnykh metallov i splavov (Metal science and the treatment of non-ferrous metals and alloys), 324-332

TOPIC TAGS: ^{also,} titanium, titanium alloy, metal heat treatment, nonferrous metal alloy/VT-5D alloy

ABSTRACT: The object of the investigation was to determine the effect of temperature and duration of annealing in air on the microhardness of technical titanium and alloy VT-5D. The microhardness and the microstructure of the specimens were

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L 24431-66

ACC NR: AT6006485

determined after annealing in air at various temperatures (from 700 to 1200C) over a period of 15--360 minutes. Several photographs of polished sections of the specimens are presented. The experimental results are presented in graphs and tables (see Fig. 1).

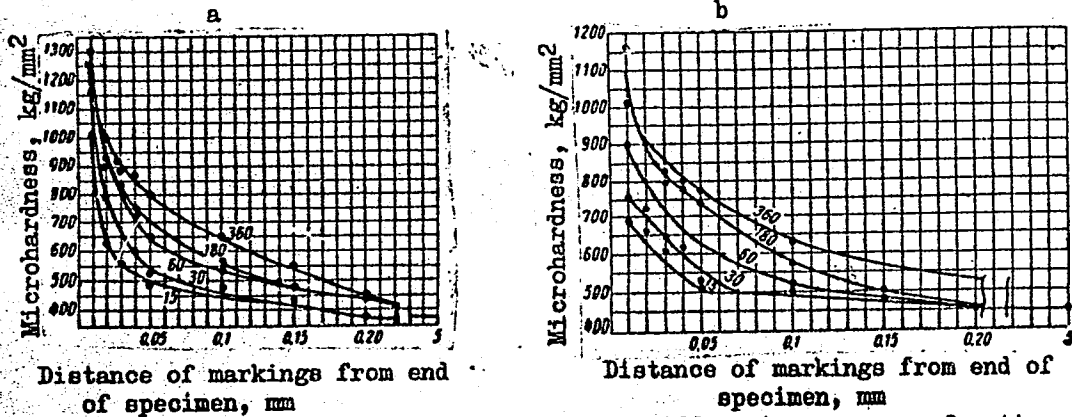


Fig. 1. Change in microhardness of specimens in different zones as a function of the period and temperature of annealing. Specimens were annealed at 1200C for 15, Card 2/3

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ACC NR: AT6006485

30, 60, 180, and 360 minutes and quenched in water. a - technical titanium; b - alloy VT-5D.

It was found that during annealing of technical titanium at 700C the diffusion layer formed on its surface was of negligible thickness, but that the rate of formation and thickness of the diffusion layer increased with increase in the duration and temperature of annealing. Annealing of the alloy VT-5D at 800C resulted in a slow formation of a brittle surface layer. It is therefore recommended that intermediate products manufactured from alloy VT-5D should be cold-worked at temperatures of 600--800C. It was found that the rate of formation of the diffusion layer is more rapid in α titanium than in β -titanium, and that the allotropic transformation $\alpha \rightarrow \beta$ takes place at $\sim 900C$ in technical titanium and at $\sim 1000C$ in the alloy VT-5D. Orig. art. has: 3 tables and 9 graphs.

SUB CODE: 11/3 SUBM DATE: none/ ORIG REF: 003/ OTH REF: 001

Card 3/3 dda

KUZNETZ, I. I.; KUZNETZ, I. I.

... on the ...
... method. In: ...
15-01, MS-A; ... (11. 18:0)

MARTYNYUK, V.I., inzh.

Automatic reclosing network of a three-winding transformer of an
electric substation with remote control. Energetik 11 no.5:
34-36 My '63. (MIRA 10:7)
(Electric substations) (Remote control)
(Electric transformers)

MARTYNYUK, V.I., inzh.; LUGANSKIY, V.A., master

Schematic of automatic reclosing, reserve cutting-in, and the
sectional switch of a substation with remote control. Elek.
sta. 34 no.10:83-85 0 '63. (MIRA 16:12)

GANELINA, I.Ye.; ZIMOVAYA, N.G.; IL'INSKIY, O.B.; LEBEDEVA, V.A.;
MARTINYUK, V.K.; MERKULOVA, O.S.; MUSYASHCHIKOVA, S.S.;
MYAGKAYA, I.P.; OSADCHIY, L.I.; POPOVA, T.V.; SEREBENNIIKOV, I.S.;
TYUTRYUMOVA, Z.I.; CHERNICHENKO, V.A.; YAROSHEVSKIY, A.Ya.

Interceptive component in the development of certain pathological
states. Trudy Inst.fiziol. 8:240-253 '59. (MIRA 13:5)

1. Laboratoriya patologicheskoy fiziologii (zaveduyushchiy - V.S.
Galkin [deceased]) Instituta fiziologii im. I.P. Pavlova AN SSSR.
(SENSES AND SENSATION) (PATHOLOGY)

35638
S/582/60/000/003/002.009
D222/D305

16.0200
AUTHOR:

Mariynyuk, V.V. (Moscow)

TITLE:

Investigating certain classes of functions in multi-valued logics

SOURCE:

Problemy kibernetiki, no. 3, Moscow, 1960, 49

TEXT: The author proves the precompleteness of certain classes of functions. After giving some definitions of basic concepts in the theory of multivalued logic, the concept of monotonicity relative to partial ordering is introduced. In connection with this a certain set of functional classes is implicitly defined as a generalization of the classes of monotonic functions, and it is proved that these classes are not identical. The criterion of precompleteness is formulated for a class which is a member of this set (the formulation of this criterion was communicated to the author without proof by A. V. Kuznetsov). The necessary and sufficient nature of the criterion is proved. Finally, the criterion of precompleteness is proved for the functional class T_{ESR} which is a generalization.

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D222/D305

Investigating certain classes of ...

of the classes T_{Es} investigated by S.V. Yablonskiy (Ref. 1. Trudy Matem. in-ta AN SSSR, 51, 1957). A class of N functions of k valued logic is called precomplete if a system of functions of N is complete, but whatever function $f(x_1, \dots, x_n)$ N is added to the

functions of the class N the resulting system will be complete. A function is called monotonic with respect to a partial ordering if for any sequences $\alpha = (\alpha_1, \dots, \alpha_n)$ and $\beta = (\beta_1, \dots, \beta_n)$ such

that $\alpha \preceq \beta$, the relationship $f(\alpha) \preceq f(\beta)$ is fulfilled. The class of all functions of k -valued logic monotonic with respect to r is called the class M_r . Theorem 1 states that if r_1 and r_2 are different partial orderings, then M_{r_1} and M_{r_2} are identical if, and only if

$r_2 \sim r_1$. Here \tilde{r} denotes an ordering in which the same pair of numbers are comparable as in r_1 and if $a \preceq_{r_1} b$, then $b \preceq_{\tilde{r}} a$. Theorem

is proved for the cases a) When one of the orderings is trivial. b) When both orderings are nontrivial and there is a pair of different numbers comparable with respect to r_1 and r_2 . c) When both

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S/582/60/000/003/002 009
D222/D305

Investigating certain classes of ...

derings are nontrivial and there is no pair of numbers comparable with respect to both orderings. A quasi-permutation is defined as a partial ordering which has one minimal and one maximal element. Theorem 2 states that in order that the class M_r be precomplete it is necessary and sufficient that the partial ordering r be a quasi-permutation. The class T_{EsR} is defined as follows: If each argument x_i of the functions $f(x_1, \dots, x_n)$ takes all its possible values from E_1, \dots, E_s of R , then the function $f(x_1, \dots, x_n)$ takes its values only from E and from not more than s different classes E_1, \dots, E_s of R . Here E is a non-empty subset of the set of numbers $1, 2, \dots, k-1$. The remaining numbers of this set, E_k , are divided into non-empty subsets E_1, \dots, E_1 . The aggregate of subsets is denoted by R . If the subsets E_1, \dots, E_1 contain one number each, then the class T_{EsR} is identical to the class T_{Es} of S.V. Yablonskiy. Theorem 3 states that if $0 < s < 1$, then the class T_{EsR} is precomplete.

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Investigating certain classes of ... S/582/60/000/003-003 003
D222/D305
plete. There are 2 tables and 2 non-Soviet-bloc references.
SUBMITTED: February 18, 1958

Card 4 4

MARTYNYUK, V.V. (Moskva)

Selecting the chains in an algorism set. Zhur. vych. mat. i mat.
fiz. 1 no.1:151-162 Ja-F '61. (MIRA 14:8)
(Chains (Mathematics)) (Algorism)

S/194/62/C00/007/058/160
D295/D308

12 1960

AUTHOR: Martynyuk, V.V.

TITLE: The relation between memory and certain possibilities of a finite automaton

PERIODICAL: Referativnyy zhurnal. Avtomatika i radioelektronika, no. 7, 1962, abstract 7-2-151 d (In collection: Probl. kibernetiki, no. 5, M., Fizmatgiz, 1961, 87 - 96)

TEXT: Potentiality (effectiveness) of a computer is understood as the maximum complexity of test problems that it can solve. The effectiveness of a computer (automaton) is assessed for the concrete class of test problems, suggested by A.A. Lyapunov. A finite automaton R is defined as an object with a finite number $M \geq 1$ of states a_1, \dots, a_M and a finite number (≥ 1) of input signals. The maximum possible effectiveness $L(M) = \text{Max} [H(M, N)]$, where $H(M, N)$ is the maximum possible effectiveness of an automation with M states and N signals. An automaton is said to have effective numbers in the case when a signal, differing from s received signals, is characterized by the final state of the automation, i.e. by the con-
Card 1/2

The relation between memory and ...

S/194/62/000/007/058/160
D295/D308

tents of the memory of the computer. By designing concrete automata, lower and upper estimates, defined in terms of effectiveness, are found for the maximum possible effectiveness $L(M)$. It is shown that an estimate of the function $I(s)$ follows directly from the estimates obtained above for the function $L(M)$, where $I(s)$ is the minimum number of states that suffices for an automaton with this number of states to possess effectiveness s . It is pointed out that the results obtained can be extended to the case when a finite automaton passes from one state to another not under the action of a single signal but under the action of a set of a certain number of signals. 1 reference. [Abstracter's note: Complete translation.]

Card 2/2

MARTYNYUK, V.V. (Moskva)

Method of symbolic addresses. Probl. kit. no. 6:45-58 '61.
(Programming (Electronic computers)) (MIRA 15:1)

16 6800

40495

S/208/62/002/003/006/011
1040/1219

AUTHOR. Martynyuk, V V (Moscow)

TITLE. On the economical allocation of memory

PERIODICAL. Zhurnal vychislitel'noy matematiki i matematicheskoy fiziki, v. 2, no. 3, 1962, 445-458

TEXT The procedure is intended for automatic programming; the programmed algorithm is assumed to be reduced to an operator scheme. The first step consists in computing the incompatibility matrix two quantities are incompatible when the intersection of their activity domain contains an operator working on at least one of them. For scalar quantities, the problem is then reduced to that of colouring the vertices of the incompatibility graph with the minimum number of colors. The method consists in joining in succession, one matrix to a non-adjacent vertex which is adjacent to the maximum number of vertices adjacent to the first vertex. For non scalar quantities, there is the supplementary condition that successive elements must be stored in successive cells. Each possible joining of one non scalar with another determines a new incompatibility matrix. The evaluating function ψ of this matrix is taken to be $\psi = p/m$, where p is the number of edges and m the number of vertices of the incompatibility graph.

SUBMITTED. December 16, 1961

Card 1/1

MARTYNYUK, V.V. (Moskva)

Economical construction of the transitive closure of a binary
relation. Zhur.vych.mat.i mat.fiz. 2 no.4:723-725 J1-Ag '62.
(Matrices) (Linear programming) (MIRA 15:8)

MARSHAL, V.V. (Moskva)

Economical system of searching and recording of information
in the case of excess storage. Izv. vuz. mat. fiz. i no.3:
536-543 Mye-de 1964. (MIRA 1/16)

SHURA-BURA, M.R. (Moskva); MARTYNYUK, V.V. (Moskva)

Efficient organization of the dynamic use of memory systems.
Zhur. vych. mat. i mat. fiz. 4 no.5:963-967 S-O '64.

(MIRA 1712)

L 56469-65 EWT(d)/T Pg-4/Pn-4 IJP(c)
ACCESSION NR: AP5009394

S/0208/65/005/002/0298/0310
681.142.2

AUTHOR: Martynyuk, V. V.

28
6

TITLE: On the analysis of a transient graph for an operator circuit

SOURCE: Zhurnal vychislitel'noy matematiki i matematicheskoy fiziki, v. 5, no. 2, 1965, 298-310

TOPIC TAGS: computer programming, computer program logic, algorithm

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ABSTRACT: To make a more economical analysis of operator circuits it is desirable to introduce supplementary *a priori* information into the operator algorithm in order to eliminate the possibility of excluding input quantities which might, in combination, theoretically lead to error, but which actually cannot occur at all in a given sequence. For this purpose, a formal language of canonical assumptions is given in order to allow the statement of a necessary property for each operator sequence. Having practical interest are those properties which lead to a logically contradictory combination in the transfer circuit from an operator to its successor. It is proved that for any operator circuit Π and any canonical assumption K the set of sequences of Π for which the predicate K is valid is a regular

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L 5649-65

ACCESSION NR: AP5009394

occurrence. If a regular occurrence R in a finite alphabet Σ consists of words beginning with the same symbol and ending with the same symbol, then there exists an operator circuit Π_R , all sequences of which are in correspondence with the set R . Thus the analysis of operator circuits with supplementary *a priori* information reduces to an analysis without such information. Operations for constructing closure and reverse closure are formulated and an algorithm presented for executing them. A method is described for the formal expansion of operator circuits into units. Orig. art. has: 7 formulas.

ASSOCIATION: none

SUBMITTED: 05Jun64

ENCL: 00

SUB CODE: DP

NO REF SOV: 009

OTHER: 000

bab
Card 2/2

MARTYRYUK, V.V.

Anatomical indications for the radical resection of the inguinal lymph nodes. Vop. onk. 1. no. 22-29 '65. (MIA 12:9)

1. Iz kafedry onkologii (zav. - chlen-korrespondent AMN SSSR prof. A.I.Rakov) Instituta onkologii AMN SSSR (dir. - deystvitel'nyy chlen AMN SSSR prof. A.A.Serebryov) i kafedry operativnoy khirurgii i klinicheskoy anatomii (zav. - prof. A.P.Pacenia) Leningradskogo gosudarstvennogo Instituta usovershenstvovaniya vrachey (rektor - dozent A.N.Polikarpov).

SVERZHEVSKIY, V.I.; POLOZHAY, G.T.; PORTNOY, N.Z.; BOGODEROV, M.A.;
MARTYNYUK, V.V.

Behavior of roof rock in coal mine stopes. Ugol' 39 no.10:9-12
0 '64. (MIRA 17:12)

1. Tr'est Artemgeologiya.

ACCESSION NR: AP4045720

S/0208/64/004/005/0963/0967

AUTHORS: Shura-Bura, M. R. (Moscow); Marty*nyuk, V. V. (Moscow)

TITLE: On the effective organization of the dynamic use of memory

SOURCE: Zhurnal vy*chislitel'noy matematiki i matematicheskoy fiziki, v. 4, no. 5, 1964, 963-967

TOPIC TAGS: memory core, cybernetics, computer, digital computer, memory address

ABSTRACT: The authors describe a machine operation which allows the dynamic transfer of information into operating memory in the time of 3 to 4 elementary logical operations, thus gaining significant savings in computation time for long problems. The hardware configuration needed is a triply-addressed machine with 9 bit operation codes and 12 bit addresses. In addition, the authors propose a mathematical address consisting of 19 bits. Of these, 7 are allotted for a memory pack, 5 for a memory "page", and 7 for a code number. In operational memory, scales are stored in successive cells containing all indices of mathematical addresses which can be used for computation. Each scale has 32 bits numbered from 0 to 31, each of which corresponds to a page from a memory pack. From the scale the address of the given code is found in operational memory, or, if the memory page is not in the

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ACCESSION NR: AP4045720

operational part, control is transferred to a special program which reserves memory space for the corresponding page which is read in from outer memory. The sequential steps in processing a dynamic memory transfer are outlined in detail, including bit contents and definitions. The function of an administrative (monitor) program in dynamic memory allocation is discussed, along with the specifications of such a program. Orig. art. has: 3 figures.

ASSOCIATION: none

SUBMITTED: 13Jun64

ENCL: 00

SUB CODE: DP

NO REF SOV: 001

OTHER: 000

Card 2/2

WATSON, W. J.;

Gas stoves

Gas. prom.

21

CA MARTYNYUK, V Z

Hygienic evaluation of the natural gas of Dashava loca-
tion. V. Z. Martynyuk and M. I. Lifshits (L'vov Epi-
demiol. Inst.). *Gigiena i Sanit.* 1951, No. 1, 9-13.—The
gas contains 97.88 vol. % CH₄, 0.5 C₂H₆, 0.16 C₃H₈, 0.13%
C₄H₁₀, 1.25% N₂, and 0.08% CO₂. The most explosive
mixture with air contains 8-9.5% of the gas. Use of the gas
for household purposes may lead to accumulation of con-
siderable amounts of CO and incomplete combustion products.
The necessary informative measures for regions supplied
with this gas are advocated. G. M. Kosolodoff

✓
MARTYNYUK, B.Z.; STOLMAKOVA, A.I.

Food intoxication and toxoinfections in the U.S.A. (1945-1947)
Gig. i san., no.8:49 Ag '54. (MLRA 7:9)

1. Iz kafedry obshchey gigiyeny L'vovskogo meditsinskogo instituta.
(UNITED STATES--FOOD POISONING)
(FOOD POISONING--UNITED STATES)

MARTYNYUK, V.Z., prof.

Present conditions and immediate problems in domestic hygiene.
Vrach.delo no.12:1309-1311 D '59. (MIRA 13:5)

1. Kafedra obshchey gigiyeny L'vovskogo meditsinskogo instituta.
(SANITATION, HOUSEHOLD)

MARTYNYUK, V.Z., prof.

Pollution of the air in living quarters supplied with gas. Gig.
1 san. 25 no. 12:81-85 D '60. (MIRA 14:2)

1. Iz L'vovskogo meditsinskogo instituta.
(AIR—POLLUTION) (GAS—TOXICOLOGY)

MARTYNYUK, V.Z., prof.; DATSENKO, I.I., kand.med.nauk

Normalization of the content of carbon monoxide in the air of dwellings supplied with gas. Gig. i san. 26 no.6:94-96 Je '61. (MIRA 15:5)

1. Iz kafedry obshchey gigiyeny L'vovskogo meditsinskogo instituta.
(AIR--POLLUTION) (CARBON MONOXIDE)

SOBCHUK, B.A., prof.; MARTYNYUK, V.Z., prof., DATSUKO, I.I., dotsent;
STOROSHCHUK, Kh.V.

Methods for determining the carboxyhemoglobin in the blood for
mass studies. Vrach.delo no.10:112-115 O '62. (MHA 11:10)

1. Kafedra obshchey gigiyey (zav. - prof. V.Z.Martynyuk, i
kafedra biokhimi (zav. - prof. B.A.Sobchuk) L'vovskogo meditsin-
skogo instituta.
(CARBOXYHEMOGLOBIN) (BLOOD—ANALYSIS AND CHEMISTRY)

KUZMENKO, L.N., prof.; MARTYNYUK, V.Z., prof.

Reorganizing educational work in Lvov Medical Institute. Vrach.
deolo no.10:132-136 0 '62. (MIRA 15:10)

1. Rektor L'vovskogo meditsinskogo instituta (for Kuzmenko).
2. Prorektor L'vovskogo meditsinskogo instituta (for Martynyuk).
(LVOV—~~MEDICINE~~—STUDY AND TEACHING)

ACC NR: AP7003543 (AN) SOURCE CODE: UR/0240/67/000/001/0048/0052

AUTHOR: Martynyuk, V. Z. (Professor); Gzhegotskiy, M. I. --Gzhegotsky, M. I.

ORG: Central Scientific Research Laboratory, L'vov Medical Institute (Tsentral'naya nauchno-issledovatel'skaya laboratoriya L'vovskogo meditsinskogo instituta)

TITLE: Toxicity of the chlororganic herbicide sodium trichloroacetate

SOURCE: Gigiyena i sanitariya, no. 1, 1967, 48-52

TOPIC TAGS: toxicity, animal, pathology, acute intoxication, herbicide, chlororganic herbicide, sodium trichloroacetate

ABSTRACT: An investigation was made of sodium trichloroacetate toxicity for various animals. To induce acute intoxication with large doses of this compound, a total of 333 animals were tested. The lethal dose₅₀ (LD₅₀) for rats, rabbits and guinea pigs was 6 gr per kg body weight. For mice and cats the respective doses were 5 and 4 gr per kg. body weight, respectively. Chronic intoxication was induced with daily doses of 1 to 0.5 gr of sodium trichloroacetate for a 7 mo period. Pathological examination of animals indicated that only cardiovascular system, stomach, and to a lesser extent liver, kidneys and adrenals showed some

UDC: 615.778.38-099

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ACC NR: AP7003543

changes. Daily intakes of sodium trichloroacetate, administered in an amount of 35 mg per kg body weight for a six mo period did not cause any significant pathological changes. Orig. art. has: 1 table. [WA-50] [AM]

SUB CODE: 06/SUBM DATE: 18Aug65/

Card 2/2

MAMUROVSKIY, A.A.; MARTYNYUK, Ye.A. [deceased]; YEGOROVA, N.O., inzhener
redaktor; DAKHNOV, V.S., tekhnicheskij redaktor.

[Sawing limestone and marble with hard-alloy saws] Pilenie izvest-
niakov i mramorov tverdosplavnymi pilami. Moskva, Gos.izd-vo lit-ry
po stroit. i arkhit., 1955. 71 p. (MLRA 8:8)
(Saws) (Stonecutting)

MARTYNYUK, Ye.I.

Operations at the Korets Sugar Refinery: Sampling juice in the
laboratory; automatic feed of clarified juice to main defecation.
Sakh.prom. 29 no.8:29-30 '55. (MLRA 9:2)

1.Keretskiy sakharanyy zaved.
(Kerets--Sugar industry)

MARTYNYUK, Yu. A.
Category : USSR/Solid State Physics - Structural Crystallography

E-3

Abs Jour : Ref Zhur - Fizika, No 2, 1957 No 3692

Author : Konobeyevskiy, S.T., Levitskiy, B.M., Martynuk, Yu, A.
Title : New Method for X-ray Structural Investigation of Radioactive Material

Orig Pub : Zh. tekhn. fiziki, 1956, 26, No 4, 870-873

Abstract : A setup for the investigation of highly radioactive materials was constructed around a Norelco type ionization x-ray spectrometer. A beam of x-rays is incident on a flat specimen. The diffraction ray, passing through the entrance slit, is reflected by a monochromator and is recorded with a counter. The kinematic setup permits automatic recording of the x-ray pattern with a potentiometer over a range of Vul'f-Bragg angles from 0° to 45° , or else to plot the diffraction lines from the number of pulses counted by a mechanical counter. Lead shields 90 cm thick protect the counter from the radioactive radiation of the specimen. The monochromator used was a rock salt crystal, bent plastically by Johann's method. If the specimen is highly active it is possible to use a second order reflection from the monochromator, thus resulting in an increase of the shielding. If the shielding is reinforced, the setup

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