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the total production of excavators amounted to more than 2,600, manufactured at 4 factories. Since 1947, some developments in this field have taken place. E.g. the Kovrov factory produced a diesel-powered excavator, E-505, the Perm' factory the OM-201 and the Voronezh factory the E-1003, with 1m³ bucket capacity. The Novokramatorskiy factory designed and produced a mobile crane excavator, RSh4/40 with 4m³ bucket capacity, also an excavator mounted on four trucks with 1m³ capacity. Figure 4 shows excavator SE-3 of 3m³ bucket capacity manufactured by the Uralmashzavod (factory). Table 1 shows the production of cranes from 1932 to 1955. The output of the excavator industry reached 5,250 units per year by 1955. During the present five-year plan a further expansion in the manufacture of cranes has taken place, e.g. during 1956, 6,800 excavators were produced. Table 2 gives a comparison between the various makes of cranes up to 1941 and after 1945. Figure 5 illustrates excavator E-5010, produced by the Kovrov factory, with 0.5m³ bucket capacity and powered by a D-54 diesel engine. The Voronezh factory modified the excavator E-1003 to the E-2001 by increasing the bucket capacity to 2m³ (Figure 6). The Uralmashzavod (factory) produced a

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mobile excavator with $25m^3$ capacity and arm length of 100m. The importance of excavators to the building industry is shown by the amount of excavation in hand, amounting to $700,000,000m^3$ with 20,000 excavator operators. There are six figures and two tables.

1. Earth moving equipment--USSR 2. Earth moving equipment--Production 3. Earth moving equipment--Design

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PETERS, Ye. K.

KOKH, Petr Ivanovich; PETERS, Ye.K., kand.tekhn.nauk, retsenzent; VOSKRESENSKIY, N.N., inzh, redaktor; TIKHANOV, A.Ya., tekhnicheskiy redaktor.

[Excavating machinery; design, operation, and repair]. Ekskavatory; ustroistvo, ekspluatatsiia, remont. Moskva, Gos.nauchno-tekhn.izd-vo mashinostroit. lit-ry, 1957. 327p. (MIRA 11:5)
(Excavating machinery)

GRIGORENKO, M.G.; KOZLOVSKIY, G.B.; MUSTAFIN, G.A.; FEYGIN, L.A.; SHIKALOV, A.G.; PETERSA, Ye.R., kandidat tekhnicheskikh nauk, redaktor; FAYNBERG, G.M., inzhener, redaktor.

[Road machinery] Dorozhnye mashiny. Pod obshei red. E.R.Petersa i G.M. Faimberga. Moskva, Ministerstva avtomobil'nogo transporta i shosseinykh dorog SSSR. Pt.1. 1954.366 p. (Microfilm) (MLRA 9:6)
(Road machinery)

PETERS, Ye.R., kandidat tekhnicheskikh nauk.

New excavator with a bucket capacity of .5 cubic meters produced by the Kovrovskii plant. Mekh.stroi. 4 no.2:1-5 F '47.(MLRA 9:2)

1.Tekhsovet po mekhanizatsii trudoyemkikh i tyazhelykh rabot pri Sovete Ministrov.
(Excavating machinery)

PETERS, Ye.R., kandidat tekhnicheskikh nauk.

Working equipment for small excavators. Mekh.stroi.4 no.8:3-6 Ag '47. (MLRA 9:2)

1.Tekhsovet pri Sovete ministrov.
(Excavating machinery)

PETERS, Ye.R.

BORODACHEV, I.P., kandidat tekhnicheskikh nauk; GARBUZOV, Z.Ye., inzhener; redaktor; GOROKHOV, B.N. laureat Stalinskoy premii, inzhener; KOSTIN, M.I., inzhener; POPOV, N.I., inzhener; PRUSSAK, B.N., inzhener; SHIMANOVICH, S.V., inzhener; PETERS, Ye.R., kandidat tekhnicheskikh nauk, retsenzent; KRIMERMAN, M.N., inzhener, redaktor; MODEL', B.I., tekhnicheskiy redaktor.

[Machines for constructing irrigation systems] Mashiny dlia sooruzheniia orositel'nykh sistem. Pod red. Z.E.Garbuzova. Moskva, Gos.nauchno-tekhn.izd-vo mashinostroitel'noi lit-ry, 1951. 236 p. (MLRA 9:1)
(Irrigation)

PETERS, Ye.R., kandidat tekhnicheskikh nauk.

"Internal combustion engines for building and road machinery." [kandidat tekhnicheskikh nauk] N.V.Pul'manov. Reviewed by E.R.Peters. Mekh.stroi.11 no.4:31-32 Ap '54. (MLRA 7:4)
(Gas and oil engines) (Pul'manov, N.V.)

PETERS, Ye.R., kandidat tekhnicheskikh nauk; GRECHIN, N.K., laureat Stalinskoy premii, inzhener, redaktor; KRIMERMAN, M.N., inzhener redaktor; POPOVA, S.M. tekhnicheskiy redaktor.

[Principles of the theory of single-bucket excavator]Osnovy teorii odnokovshovykh ekskavatorov. Pod red.N.K. Grechina. Moskva, Gos. nauchno-tekhn. izd-vo mashinostroit.lit-ry, 1955. 259 p. (MLRA 8:8)
(Excavating machinery)

PETERS, Ye. R.

AVERIN, N.D., inzhener, laureat Stalinskoy premii; PETERS, Ye.R., kandidat tekhnicheskikh nauk; SHIMKEVICH, N.A., inzhener.

New machinery for working frozen ground. Mekh.stroi. 11 no.7: 9-11 Jl '54. (MLRA 7:7)
(Frozen ground) (Earthmoving machinery)

AVERIN, N.D., laureat Stalinskoy premii, inzhener; PETERS, Ye.R., kandidat tekhnicheskikh nauk; FEYNBERG, G.M., inzhener.

Concerning the type of self-propelled scraper. Mekh.stroi. 10 no.7:6-10 Jl '53. (MLRA 6:7)
(Excavating machinery)

AVERIN, N.D., laureat Stalinskoy premii, inzhener; PETERS, Ye.R., kandidat tekhnicheskikh nauk; BARON, F. Ya.

Bucket vibrators for single-bucket excavators. Mekh.stroi. 10 no.6:12-12 Je '53. (MLRA 6:6)

(Excavating machinery)

GOROKHOV, N.V., doktor tekhnicheskikh nauk; PETERS, Ye.R., kandidat tekhnicheskikh nauk.

Power drive of single-bucket excavators and the prospects of its development. Mekh.stroi. 10 no.11:13-16 N '53. (MLRA 6:11)
(Excavating machinery)

PUT 27, [illegible].

Excavating Machinery

Output of an excavator [illegible] of [illegible]
9, No. 3, 1953.

9. Monthly List of Russian Accessions, Library of Congress, [illegible] 1953, Uncl.

ANOKHIN, A.I., professor, doktor tekhnicheskikh nauk; PETERS, Ye.R., kandidat tekhnicheskikh nauk.

Prospects of Russian construction of excavators. Stroi. dor. 10 no.7:5-7 Jl-Ag '47. (MLRA 6:12)
(Excavating machinery)

PETERS, Ye R

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Osnovy teorii odnokovshovykh ekskavatorov (Foundations of the theory of single bucket excavators) Moskva, Mashgiz, 1955.
259 p. diagrs., tables.

ALBUL, S.P.; PETERSEL', L.Kh.

Results of geochemical studies of fluvial sediments in a drainage network in the regions of complex metal occurrences in the Estonian S.S.R. Trudy VITR no.3:304-316 '61. (MIRA 15:7)
(Estonia—Geochemical prospecting)

PETERSEN, I.

Convergence of gradient methods for determining the local conditional minimum of a nonlinear functional under linear conditions in Hilbert space. Dokl. AN SSSR 151 no.1:45-47 Jl '63. (MIRA 16:9)

1. Institut kibernetiki AN Estonskoy SSR. Predstavleno akademikom A.A.Dorodnitsynym.
(Hilbert space) (Functional analysis)

PETERSE , I.

Use of the method of principal components in describing hydrological processes with correlated input parameters. Izv. AN Est. SSR. Ser. fiz.-mat. i tekh. nauk 14 no. 4:540-547 '65 (MIRA 19:2)

1. Institut kibernetiki AN Estonskoy SSR. Submitted May 5, 1965.

PETERSEN, I.

The construction of the products of two permutable groups. In Russian. Eesti tead akad tehn fuus 9 no.4:296-300 '60.
(EEAI 10:7)

1. Institut kibernetiki Akademii nauk Estonskoy SSR.
(Groups, Theory of)

L 18508-63 EWT(d)/FCC(w)/BDS AFFTC/IJP(C) S/0023/63/000/002/0123/0131

ACCESSION NR: AP3002971

54

AUTHOR: Petersen, I. (Candidate of physical and mathematical sciences) 53

TITLE: Runge-Kutta method for solving nonlinear equations in Hilbert space 16 16

SOURCE: AN EstSSR. Izvestiya. Seriya fiziko-matematicheskikh i tekhnicheskikh nauk, no. 2, 1963, 123-131

TOPIC TAGS: Runge-Kutta method, successive approximation, Hilbert space, nonlinear equation, rate of convergence

ABSTRACT: Consider the problem of an approximate solution of the equation $P(x) = 0$, (1), where $P(x)$ is a nonlinear operation from the Hilbert space H into the same space, and $x'(t) = -P(x(t))$, $x(0) = x_0$, (2). Theorem 1. If the operator $P(x)$ is differentiable in the closed sphere $S[x_0, r]$, where $r \geq M\| P(x_0)\|$ and satisfies, in this sphere, a Lipshitz condition and the condition

$$(P'(x)y, y) \geqslant \frac{1}{M}\|y\|^2, \quad (M > 0),$$

for any $y \in H$, then equation (1) (quoted above in the abstract) has a unique solution x^* in the sphere $S[x_0, r]$. Here the differential equation (2) has, for $t > 0$, the

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solution $x(t) \in S(x_0, r)$, $\lim_{t \to +\infty} x(t) = x^*$, and the following estimates hold:

$$\| P(x(t)) \| \leqslant \| P(x_0) \| e^{-\frac{t}{M}},$$

$$\| x(t) - x(t_1) \| \leqslant M \| P(x_0) \| (e^{-\frac{t_1}{M}} - e^{-\frac{t}{M}}) \ (0 \leqslant t_1 < t);$$

$$\| x(t) - x^* \| \leqslant M \| P(x_0) \| e^{-\frac{t}{M}}.$$

Notation: Let $p(\delta)$ be a polynomial of degree s-2 with positive coefficients,

$$q(h, \delta) = e^{-\frac{h}{M}} + A h^s p(\delta),$$

$$r(h, \delta) = \frac{M(1 - e^{-\frac{h}{M}}) + h^s p(\delta)}{1 - q(h, \delta)} \delta,$$

where A and M are positive constants, and for any $\delta_0 > 0$ and $h > 0$ let the sequence $\{\delta_n\}$ be defined by the formula

$$\delta_{n+1} = q(h, \delta_n) \delta_n \qquad (n = 0, 1, \ldots).$$

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Theorem 2. Let the operator P(x) be differentiable in the sphere $S[x_0, r(h, \delta_0)]$, where $\| P(x_0) \| \leq \delta_0$, and let it satisfy, in this sphere, condition (3) and a Lipshitz condition with constant A. Further, let h* be the positive root of the equation

$$q(h, \delta_0) = 1,$$

where h is a number $0 < h < h^*$, and the sequence $\{x_n\}$ of elements of the space H is constructed by the recursion formula

$$x_{n+1} = F(x_n, h) \qquad (n = 0, 1, \ldots),$$

where for all n the following condition is satisfied

$$\| F(x_n, h) - z_n(h) \| \leqslant h^s p(\| P(x_n) \|) \| P(x_n) \| \qquad s > 2,$$

where $z_n(t)$ is the solution of the problem

$$z'(t) = -P(z(t)), \quad z(0) = x_n.$$

Then $x_n \in S[x_0, r(h, \delta_0)]$ and the sequence $\{x_n\}$ converges to the unique solution x* of equation (1) in the sphere $S[x_0, r(h, \delta_0)]$ for any h such that $0 < h < h^*$ at the

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rate $\|x_{n+1}-x^*\| \leqslant [h'p(\|P(x_n)\|)+Me^{-\frac{h}{M}}]\|P(x_n)\| \leqslant [h'p(\delta_n)+Me^{-\frac{h}{M}}]\delta_n$. Orig. art. has: 29 formulas.

ASSOCIATION: Institut kibernetiki akademii nauk Estonskoy SSR (Institute of Cybernetics, Academy of Sciences, Estonian SSR)

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ACCESSION NR: AP3003502 S/0020/63/151/001/045/0047

52

AUTHOR: Petersen, I.

TITLE: Convergence of gradient methods for determining a local relative minimum of a nonlinear functional under linear conditions in a Hilbert space

SOURCE: AN SSSR. Doklady, v. 151, no. 1, 1963, 45-47

TOPIC TAGS: approximate solution, differential equation, local relative minimum, Hilbert space

ABSTRACT: Let f(x) be a functional in a convex region D of a real Hilbert space H. A theorem is established connecting the solution of the differential equation shown in the enclosure with the point x^* at which f(x) attains a local relative minimum. This allows the construction and investigation of the convergence of different methods for determining x^*, based on the methods of approximate solutions of the differential equation. Orig. art. has: 28 formulas. This report was presented by Academician A. A. Dorodnitsyn 23Jan 1963.

ASSOCIATION: Institut kibernetiki Akademii nauk ESSR (Institute of Cybernetics, Academy of Sciences, ESSR)

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PETERSEN, I., kand.fiz.-matem.nauk

Convergence of approximate methods of the interpolation type for ordinary differential equations. Eesti tead akad tehn fuus 10 no.1:3-12 '61.

1. Institut kibernetiki AN Estonskoy SSR.

PETERSEN, I.; REYTSAKAS, A. [Reitsakas, A.]

Conference on problems concerning the M-3 computer. Eesti tead. akad.tehn.füüs. no.1:76 '62.

PETERSEN, I., kand.fiz.-matem.nauk

Runge-Kutta type methods for solving nonlinear equations in Hilbert space. Izv. AN Est. SSR. Ser. fiz.-mat. i tekh. nauk 12 no.2: 123-131 '63. (MIRA 16:10)

1. Institut kibernetiki AN Estonskoy SSR.

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AUTHOR: Petersen, I., Candidate of Physico-Mathematical Sciences

TITLE: On the convergence of approximation methods of the interpolation type for ordinary differential equations

PERIODICAL: Akademiya nauk Estonskoy SSR. Izvestiya. Seriya fiziko-matematicheskikh i tekhnicheskikh nauk, no. 1, 1961, 3 - 12

TEXT: The purpose of this article is to solve the differential equation

$$L x \equiv x^{(2m)}(t) - \lambda[p_1(t)x^{(2m-1)}(t) + \ldots + p_{2m}(t)] = y(t) \qquad (1.1) \qquad (1.1)$$

with the boundary conditions

$$x(-1) = x'(-1) = \ldots = x^{(m-1)}(-1) = 0. \quad x(1) = x'(1) = \ldots = x^{(m-1)}(1) = 0. \qquad (1.2)$$

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The approximate solution will be a polynomial satisfying the boundary conditions

$$\tilde{x} = (1 - t^2)^m \sum_{i=1}^{N} c_i t^{i-1}, \qquad (1.3)$$

where c_1, c_2, ... c_N are determined by the condition that (1.1) is satisfied in a given system of nodal points t_1, t_2, ... t_n of the interval [-1; 1]. These approximate methods are called interpolation methods. Conditions of convergence of the coincidence method were established by E.B. Karpilovskaya (Ref. 2: Uspekhi matem. nauk (Progress in Math.Sc.) t. VIII, vyp. 3(55), 1953, 111-118), i.e. interpolation method in a special case N = n, where n coefficients of c_i are determined by n equations

$$[L\tilde{x} - y]_{t=t_j} = 0 \qquad (j = 1, 2, \ldots, n). \qquad (2.1)$$

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K.B. Bitsenko and R. Grammel' submitted a method of subregions in which N = n - 1 and condition (2.1) is replaced by

$$\int_{t_j}^{t_{j+1}} (L\tilde{x} - y)\, dt = 0 \qquad (j = 1, 2, \ldots n - 1), \quad (2.2)$$

(Ref. 3: Tekhnicheskaya dinamika (Technical Dynamics) t.I, Gostekhizdat, 1950). Following are 3 further methods of the interpolation type: A) Take N = 2n - 1 and the coefficients c_i are determined by Eqs. (2.1) and (2.2). B) Take N = 2n and the coefficients c_i are determined by the Eqs. (2.1) and

$$\left[\frac{d}{dt}(L\tilde{x} - y)\right]_{t=t_j} = 0 \qquad (j = 1, 2, \ldots, n). \quad (2.3)$$

C) Take N = 2n and the coefficients c_i are determined by Eqs. (2.1)

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and

$$\left[\frac{d^{2m+1}\tilde{x}}{dt^{2m+1}}\right]_{t=t_j}=0 \qquad (j=1, 2, \ldots, n). \qquad (2.4)$$

For simplicity, only Chebyshev's interpolation nodes are examined in this article. According to L.V. Kantorovich's ideas (Ref. 1: Funktsional'nyy analiz v normirovannykh prostranstvakh (Functional Analysis in Normalized Spaces), Fizmatgiz, 1959) (1.1) - (1.2) are considered as a functional equation

$$Lx \equiv Gx - \lambda Tx = y, \qquad (3.1)$$

where

$$Gx=\frac{d^{2m}x}{dt^{2m}}, \qquad Tx=\sum_{l=1}^{2m} p_l \frac{d^{2m-l}x}{dt^{2m-l}}, \qquad (3.2)$$

the operators G and T transform a normalized region X into a norma-

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lized region Y while X consists of a function satisfying the boundary conditions (1.2) and

$$\|x\|_X = \|Gx\|_Y. \qquad (3.3)$$

The equations for determining the coefficients c_i in (1.3) give an "approximate" equation

$$G\tilde{x} - \lambda\Phi T\tilde{x} = \Phi\tilde{y}. \qquad (3.4)$$

where x and y are the elements of certain subregions $\tilde{X} = \tilde{X}(n) \subset X$ and $\tilde{Y} = \tilde{Y}(n) \subset Y$ respectively, while $G(\tilde{X}) = \tilde{Y}$ and $\Phi = \tilde{\Phi}(n)$ is a certain linear operator of the projection Y on $\tilde{Y}$. If the operators T and L^{-1} are linear and for every $x \in X$ there is such $\tilde{y} \in \tilde{Y}$, that

$$\|Tx - \tilde{y}\|_Y \leqslant \mu_1 \|x\|_X. \qquad (3.5)$$

and $\tilde{y} \in \tilde{Y}$ such that

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$$\|y-\tilde{y}\| \leqslant \mu_2, \qquad (3.6)$$

and

$$\lim_{n\to\infty} \mu_1\|\Phi\| = \lim_{n\to\infty} \mu_2\|\Phi\| = 0, \qquad (3.7)$$

then according to Kantorovich (Ref. 1: Op.cit.), Eq. (3.4) for all sufficiently large n has a single solution $\tilde{x}^*$ converging towards the solution x^* of (3.1) with $n \longrightarrow \infty$ at the rate of

$$\|x^*-\tilde{x}^*\|_X = O(\varepsilon\|\Phi\|), \qquad (3.8)$$

where ε is such that there is $\tilde{x}\varepsilon\tilde{X}$ which has

$$\|x^*-\tilde{x}\|_X \leqslant \varepsilon. \qquad (3.9)$$

The following conditions are introduced: I. Λ is not a special case of (1.1) - (1.2). II. $p_1(t) = 0$. III. Coefficients $p_2(t)$, ...,

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$p_{2m}(t)$ and the free term y(t) in [-1; 1] are r times continually differentiable and their derivatives of the r-th order satisfy the Lipshits condition with an index α. IV. There exists a constant A such, that in [-1; 1]

$$\frac{|p_2(t)|}{\sqrt{1-t^2}} \leqslant A. \qquad (4.1) \qquad (4.1)$$

V. Nodes t_1, t_2, ... t_n are the zeros of Chebyshev's polynomial $T_n(t)$. Theorem 1. If the conditions I-V are satisfied then with $r \geqslant 1$, $\alpha > 0$, Eqs. (2.2) for determining the n-th approximation of (1.1) - (1.2) by the method of subregions have a single solution for all sufficiently large n. The approximations and their derivatives up to 2m - 1 order inclusive, converge uniformly to [-1; 1], and the derivatives of the 2m'th order converge uniformly throughout the whole internal [a; b] $\subset$ (-1; 1) towards the solution of (1.1) - (1.2) and towards its corresponding derivatives. Or more

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exactly,

$$\max_t \left| \frac{d^k x^*}{dt^k} - \frac{d^k \bar{x}^*}{dt^k} \right| = O\left(\frac{\ln n}{n^{r+\bullet-1}}\right) \quad (k = 0, 1, \ldots, 2m-1),$$

$$\max_t \left(\left| \frac{d^{2m} x^*}{dt^{2m}} - \frac{d^{2m} \bar{x}^*}{dt^{2m}} \right| \sqrt{1-t^2} \right) = O\left(\frac{\ln n}{n^{r+\bullet-1}}\right), \quad (4.2) \qquad (4.2)$$

where x^* is the exact solution of (1.1) - (1.2), and $\bar{x}^*$ is the n-th approximation by the method of subregions. A proof of this theorem is given which shows that the expression (4.2) follows from

$$\max_t |x^{(k)}(t)| \leqslant A_k \|x\|_{x_1} \quad (k = 0, 1, \ldots, 2m-1). \quad (4.5) \qquad (4.5)$$

and

$$\|\Phi\| = O(n \ln n). \quad (4.10) \qquad (4.10)$$

which follows from the Bernstein theorem. According to Jackson's

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theorem there exists a polynomial $\tilde{y}\varepsilon\tilde{Y}$ such that

$$\|Tx-\tilde{y}\|_{Y_1} \leqslant \max_t |Tx-\tilde{y}| = O\left(\frac{1}{n^{1+\alpha}}\right)\|x\|_{X_1}. \qquad (4.12) \qquad (4.12)$$

From III with $r \geqslant 1$, $\alpha > 0$ it follows that also for the free term $y(t)$ there is $\tilde{y}\varepsilon\tilde{Y}$, such that

$$\|y-\tilde{y}\|_{Y_1} \leqslant \max_t |y-\tilde{y}| = O\left(\frac{1}{n^{1+\alpha}}\right). \qquad (4.13) \qquad (4.13)$$

Expressions (4.12), (4.13) and (4.10) show that conditions (3.5), (3.6) and (3.7) are satisfied. To prove (4.2) it is noted that from III there follows a (2m + r)-fold continuous differentiability of the solution x^* of this problem, and its derivative of the (2m + r) -th order satisfies the Lipshits condition with the index α. According to Jackson's theorem there exists $\tilde{x}\varepsilon\tilde{X}$ such that

$$\|x^*-\tilde{x}\|_{X_1} \leqslant \max_t \left|\frac{d^{2m}x^*}{dt^{2m}} - \frac{d^{2m}\tilde{x}}{dt^{2m}}\right| = O\left(\frac{1}{n^{r+\alpha}}\right). \qquad (4.14) \qquad (4.14)$$

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Therefore (4.2) follows from (3.8), (4.5) and (4.10). Based on the above analysis ,particularly on (4.12) - (4.14) and on

$$\| \Phi \| = O(n). \qquad (5.4) \qquad (5.4)$$

is Theorem 2 which states that if the conditions I - V are satisfied then with $r \geqslant 1$, $\alpha > 0$ Eqs. (2.1) - (2.3) for determining the n-th approximation of the problem (1.1) - (1.2) by method A have a single solution for all sufficiently large n, and these approximations x^* converge to an exact solution x^* at the rate

$$\max_t \left| \frac{d^k x^*}{dt^k} - \frac{d^k \tilde{x}^*}{dt^k} \right| = O\left(\frac{1}{n^{r+\alpha-1}}\right) \quad (k = 0,1,\ldots, \quad 2m-1),$$

$$\max_t \left(\left| \frac{d^{2m} x^*}{dt^{2m}} - \frac{d^{2m} \tilde{x}^*}{dt^{2m}} \right| \sqrt{1-t^2} \right) = O\left(\frac{1}{n^{r+\alpha-1}}\right).$$

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On investigating the coincidence method for (1.1) - (1.2) it was established in (Ref. 1:Op.cit.) that

$$\max_t |x^{(k)}(t)| \leqslant A_k \max |x^{(2m)}(t)| \quad (k = 0, 1, \ldots, 2m). \quad (6.3) \qquad (6.3)$$

Based on III in this particular case in (3.9) is the expression

$$\varepsilon = O\left(\frac{1}{n^{r+\alpha-1}}\right).$$

This proves Theorem 3 which states that if the conditions I - V are satisfied, then with $r \geqslant 2, \alpha > 0$ Eqs. (2.1) - (2.3) for determining the n-th approximation of the problem (1.1) - (1.2) by method B have a single solution for all sufficiently large n and these approximations x^* converge to an exact solution x^* at the rate

$$\max_t \left| \frac{d^k x^*}{dt^k} - \frac{d^k \tilde{x}^*}{dt^k} \right| = O\left(\frac{1}{n^{r+\alpha-2}}\right) \quad (k = 0, 1, \ldots, 2m).$$

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$$\max_t\left(\left|\frac{d^{2m+1}x^*}{dt^{2m+1}}-\frac{d^{2m+1}\tilde{x}^*}{dt^{2m+1}}\right|\sqrt{1-t^2}\right)=O\left(\frac{1}{n^{r+\alpha-\frac{1}{2}}}\right).$$

Theorem 4 states that if λ is not a special case of the problem (1.1) - (1.2), $p_1(t)$, ..., $p_{2m}(t)$ and $y(t)$ in [-1; 1] are continuous and satisfy the Lipshits condition with a positive index α, then method C is applied with the Chebyshev nodes to an approximate solution of this problem with all sufficiently large n. Approximate solutions converge to an exact solution at the rate

$$\max_t\left|\frac{d^kx^*}{dt^k}-\frac{d^k\tilde{x}^*}{dt^k}\right|=O\left(n^{-\frac{\alpha}{2}}\right)\quad(k=0,1,\ldots,2m). \tag{7.1}$$

For (3.9) $\varepsilon = O(n^{-\frac{\alpha}{2}})$ so that (7.1) follows from (3.8) and (6.3). This proves the theorem. There are 5 Soviet-bloc references.

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On the convergence of ... D203/D305

ASSOCIATION: Institut kibernetiki akademii nauk Estonskoy SSR (Institute of Cybernetics AS Estonian SSR)

SUBMITTED: July 15, 1960

Card 13/13

PETERSEN, I. F.

PETERSEN, I. F.- "On the Construction of Groups Generated by Rearrangement Groups." Tartu State U, Tartu, 1955 (Dissertations For the Degree of Candidate of Physicomathematical Sciences)

SO: Knizhnaya Letopis' No. 26, June 1955, Moscow

KUDRYAVTSEV, I.; LEETS, K. [Laats, K.];PETERSEN, L.

Synthesis of primary alcohols by hydroxymethylation of alkenes.
Izv. AN Est. SSR. Ser. fiz.-mat. i tekh. nauk 14 no. 4:635-641
'65 (MIRA 19:2)

1. Institut khimii AN Estonskoy SSR. Submitted May 22, 1965.

PETERSON, O.P.; POZLOVA, I.A.; MEL'NIKOVA, L.A.

Initial stage of interaction of the smallpox vaccine virus and sensitive cells. Vop. virus 8 no.5:553-555 S-O'63
(MIRA 17:1)

1. Institut virusologii imeni D.I. Ivanovskogo AMN SSSR, Moskva.

PETERSEN, P.

"Harvesting Sugar Beets by Use of a Combine" Tr. from the Russian, p. [illegible]
(ZA SOCIALISTICKE ZEMEDELSTVI, Vol. 2, no. 8, August 1952, Praha, Czechoslovakia).

SO: Monthly List of East European Accessions, LC, Vol. 2, No. 11, Nov. 1953, Uncl.

PETERSEN, P. P.

Beets and Beet Sugar

Over-all mechanization of the cultivation of sugar beets. P. P. Petersen. Sov. agron [illegible] No. 8 1952.

9. Monthly List of Russian Accessions, Library of Congress, September, 1955, Uncl.

PETERSEN, P.

Beets and Beet Sugar

Effectiveness of lengthwise and crosswise row cultivation of sugar beets; from experimental data of the All-Union Scientific-Research Institute of Beet Culture. Sots. sel'khoz. 23, No. 1, 1952

Monthly List of Russian Accessions, Library of Congress, June 1952. Unclassified.

PETRUSEV, P. P.

"The Effectiveness of New Agrotechnical and Mechanical Methods in the Cultivation of Sugar Beets," Cand Agr Sci, Voronezh Agricultural Inst, Min Higher Education USSR, Voronezh, 1954. (KL, No 1, Jan 55)

Survey of Scientific and Technical Dissertations Defended at USSR Higher Educational Institutions (13)
SO : Sum, No. 598, 29 Jul 55

SOLOVEY, F.M., kand.sel'skokhozyaystvennykh nauk; PETERSEN, P.P., kand.sel'skokhozyaystvennykh nauk

Machinery for cultivating and harvesting sugar beets in continuous operations. Mekh. i elek. sots. sel'khoz. 19 no.4:8-15 '61. (MIRA 14:11)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut mekhanizatsii sel'skogo khozyaystva.
(Sugar beets)
(Agricultural machinery)

GORSTKA, V.N.; PETERSIL'YE, I.A.; PRIPACHKIN, V.A.

Combustible gases in the rocks of the contact zone in the Khibiny alkali massif. Dokl. AN SSSR 162 no.6:1386-1389 Je '65. (MIRA 18:7)

1. Geologicheskiy institut Kol'skogo filiala im. S.M.Kirova AN SSSR. Submitted March 13, 1965.

LEBEDEV, V.I.; PETERSIL'YE, I.A.

Isotopic composition of the carbon of carbonaceous gases and siderite in the eruptive rocks of the Kola Peninsula. Dokl. AN SSSR 158 no.5: 1102-1104 O '64. (MIRA 17:10)

1. Predstavlena akademikom F.S.Kozlinskim.

PETERSIL'YE, I.A.

Origin of hydrocarbon gases and trace bitumens of the Khibiny alkali massif [with summary in English]. Geokhimiia no.1:15-29 '62. (MIRA 15:2)

1. Geological Institute of the Kola Branch of the Academy of Sciences, U.S.S.R.
(Khibiny Mountains--Hydrocarbons)

PETERSIL' F, I.A.

Is there a flow of combustible gases coming from deep [illegible] the Khibiny Mountains? Izv.AN SSSR Ser.geol. 26 no.12 [illegible] D '61. (MIRA 14 12)

1. Kol'skiy filial AN SSSR, Apatitovaya gora, Murmanskaya oblast'.

(Khibiny Mountains--Gas, Natural)

PETERSIL'YE, I.A.; ANDR[illegible]; SVESHNIKOVA, Ye.V.

Organic matter in the rocks of some alkali massifs in Siberia.
Izv. AN SSSR. Ser. geol. 30 no.6:26-38 Je '65.
(MIRA 18:6)

1. Geologicheskiy institut Kol'skogo filiala im. S.M. Kirova AN SSSR, g. Apatity, i Institut geologii rudnykh mestorozhdeniy, petrografii, mineralogii i geokhimii AN SSSR, Moskva.

PETERSIL'YE, I.A.

[Gases and dispersed bitumens in rocks and certain intrusive massifs of the Kola Peninsula] Gazy i rasseiannye bitumy gornykh porod nekotorykh intruzivnykh massivov Kol'skogo poluostrova. Apatity, Akad.nauk SSSR. Kol'skii filial im. S.M.Kirova, 1960. 41 p. (MIRA 14:4)
(Kola Peninsula--Gas, Natural--Geology)
(Kola Peninsula--Bitumen--Geology)

PETERSIL'YE, I.A.; PROSKURYAKOVA, Ye.B.

Scattered bitumens in alkaline rocks of the Khibiny pluton. Izv. AN SSSR. Ser. geol. 26 no. 4:74-84 Ap '61. (MIRA 14:5)

1. Kol'skiy filial AN SSSR, Apatitovaya gora, Murmanskoy oblasti.
(Khibiny Mountains--Bitumens)

PETERSIL'YE, I.A.; ANDREYEVA, Ye.D.; SVESHNIKOVA, Ye.V.

Hydrocarbon gases and disseminated bitumens in the rocks of some alkali massifs in Siberia. Dokl. AN SSSR 161 no.3:670-672 Mr '65. (MIRA 18:4)

1. Institut geologii rudnykh mestorozhdeniy, petrografii, mineralogii i geokhimii AN SSSR i Geologicheskiy institut Kol'skogo filiala AN SSSR. Submitted November 24, 1964.

PETERSIL'YE, I.A.

Gas component and dispersed bitumens in rocks of the Khibiny Mountains. Mat. po min. Kol'. poluost. 2:74-79 '62.
(MIRA 16:4)
(Khibiny Mountains—Rocks—Analysis)

I. A. PETERSILIE (USSR)

"Organic substance in igneous and metamorphic rocks."

Report presented at the Conference on Chemistry of the Earth's Crust, Moscow, 14-19 Mar 63.

PETERSIL'YE, I.A.

Hydrocarbon gases and bitumens in intrusive massifs of the central part of the Kola Peninsula. Izv.AN SSSR.Ser.geol. 24 no.1:56-62 Ja '59. (MIRA 12:3)

1. Vsesoyuznyy nauchno-issledovatel'skiy geologorazvedochnyy neftyanoy institut Ministerstva geologii i okhrany nedr SSSR, Moskva.
(Kola Peninsula--Rocks, Igneous)

PETERSIL'YE, I.A.

Hydrocarbon gases in the Khibiny Mountains. Geol.nefti 2 no.10:62-68 O '58. (MIRA 11:11)

1. Vsesoyuznyy nauchno-issledovatel'skiy geologo-razvedochnyy neftyanoy institut.
(Khibiny Mountains--Gas, Natural)

3(0)
AUTHOR: Peterail'ye, I. A.

SOV/20-122-6-37, 9

TITLE: Hydrocarbon Gases in the Intrusive Massifs of the Central Part of the Kola Peninsula (Uglevodorodnyye gazy intruzivnykh massivov tsentral'noy chasti Kol'skogo poluostrova)

PERIODICAL: Doklady Akademii nauk SSSR, 1958, Vol 122, Nr 6, pp 1066 - 1069 (USSR)

ABSTRACT: In the years 1951 and 1954 combustible gases explored in adits of two apatite mines (Yuksporskiy and Rasvumchorrskiy S.M. Kirov). According to a report of B.M.Melent'yev the composition of the gas was: methane and homologs 82,4%, hydrogen 12,2%, oxygen 3,4%, nitrogen and inert gases 2,2%. In 1956-57 the author studied the gases of the Khibinskiy alkalic massifs. The gas in the fractures and pores of the rocks is a mixture of natural gases and atmospheric gases that have penetrated through by means of circulation from ex. The gases consist of a whole series of gas mixtures; methane, ethane, propane, n-butane and the next homologs of

Card 1/3

Hydrocarbon Gases in the Intrusive Massifs of the Centr... S/V, ...
Part of the Kola Peninsula

hydrogen. The gases of various ... different ... del (Diagram 2). ... of the ... gases found in the ... closed-in pores of the rocks are shown in table 1. Surprisingly the content of the hydrocarbon gases is dependent upon the aluminium content of the rock (Diagram 3). Luminescent studies of the bitumen of the eruptive rocks of Khibiny made possible determination of the bitumen ... in single outcrops. The ... and fine pores. The results ... are given in table 2. The ... determined the composition of the gases in the neighboring massifs of Lovozerskiy and ... The ... the following observations: 1) That ... of the occurring gases migrated in "free" ... trated, and collected in the rock in ... offered best collector characteristics. 2) The ... of the Khibinskiy and Lovozerskiy massifs prevented the penetration of hydrocarbon gases into their eruptive ... from any of the ... formations.

Card 2/3

Hydrocarbon Gases in the Intrusive Massifs of the Central SOV/20-122-[illegible]
Part of the Kola Peninsula

3)The contents of the gas in the Khibinskiy and Lovozero massifs depends upon the mineral composition of the massifs and proves without a doubt that the gas is of inorganic origin. 4) In the eruptive rocks of Khibiny a reduced bitumen was confirmed. There are 3 figures and 2 tables.

PRESENTED: May 31, 1958, by S.I.Mironov, Academician

SUBMITTED: May 31, 1958

Card 3/3

PETERSIL'YE, I. A.

"Gas-containing intrusive massives of the Kola peninsula" (Kol'skiy poluostrov).

report presented at a Conference in the Dept. of Geological and Geographical Sci., on Geochemical and Radiometrical Methods of Search and Prospecting for Deposits, 21-26 April 1958.
(Vest. Ak Nauk SSSR, 1958, No. 7, pp. 125-26)

AUTHOR: Petersil'ye, I.A. SOV/11-59-1-7/16

TITLE: The Hydrocarbon Gases and Bitumen of the Intrusive Blocks of the Central Part of the Kola Peninsula (Uglevodorodnyye gazy i bitumy intruzivnykh massivov tsentral'noy chasti Kol'skogo poluostrova)

PERIODICAL: Izvestiya Akademii nauk SSSR, Seriya geologicheskaya, 1959, Nr 1, pp 56 - 62 (USSR)

ABSTRACT: The author investigated the content of fuel gases and bitumen in the eruptive rocks which form the Khibiny, Lovozero and Monchegorsk massifs in the central part of the Kola peninsula. The first two massifs were composed of alkali rocks, and the third - of basic and ultrabasic rocks. The Khibiny massif of nephelinic syenites is a complicated intrusive body of bedded structure and, like the Lovozero massif, was formed by successive intrusions. The Monchegorsk massif belongs to the same tectonic zone as the other two, and is composed of Archeian gneisses and of sedimentary, tuffaceus and effusive Proterozoic rocks. The intrusive layers between these two parts are composed of pyroxenites, periodites, babbro-norites and norites. Different labora-

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The Hydrocarbon Gases and Bitumen of the Intrusive Blocks of the Central Part of the Kola Peninsula

tory tests showed that the alkali eruptive rocks of Khibiny and Lovozero plutonic massifs contain hydrocarbon gases almost similar to those of the gas-oil fields. These gases were composed of 80-90% methane and 20-22% - of heavy hydrocarbons C_2 and C_4. The basic and ultrabasic rocks of the Monchegorsk massif contained only a small quantity of methane and no hydrocarbon. It can be assumed that the different content of hydrocarbons in these massifs was caused by the different composition of magmata. The rocks of Khibiny and Lovozero also contain small concentrations

The Hydrocarbon Gases and Bitumen of the Intrusive Blocks of the Central Part of the Kola Peninsula

(0,00015 to 0,0012) of oily and resinified bitumen, and only traces of it were found in the Monchegorsk rocks. There are 4 tables, 2 graphs and 7 Soviet references.

ASSOCIATION: Vsesoyuznyy nauchno-issledovatel'skiy geologorazvedochnyy neftyanoy institut ministerstva geologii i okhrany nedr SSSR, Moskva (the All-Union Scientific-Research Geological Prospecting Oil Institute) (VNIGNI) of the Ministry of Geology and Conservation of Mineral Resources of the USSR, Moscow

SUBMITTED: March 5, 1958

Card 3/3

PETERSIL'YE, Iosif Abramovich; TOCHILIN, M.S., prof., otv. red.; ZHUKOVA, T.P., red.izd-va; VINOGRADOVA, N.F., tekhn.red.

[Geology and geochemistry of natural gases and disseminated bitumens of some geological formations in the Kola Peninsula] Geologiia i geokhimiia prirodnykh gazov i dispersnykh bitumov nekotorykh geologicheskikh formatsii Kol'skogo poluostrova. Moskva, Izd-vo "Nauka," 1964. 169 p. (MIRA 17:4)

BEDA, E., inzh.; PETERSON, A., inzh.; BEGUNOV, I.; KALENT'YEV, V., inzh.; PRIKHOD'KO, V., inzh.; CHERTKOV, V., inzh.; KOLOMYYCHENKO, V., inzh.; BIKEYEV, V., inzh.; KOGUYENKO, B.

Exchange of experience. Avt. transp. 43 no.1:49-54 Ja '65. (MIRA 18:3)

OGANYAN, V.; FILIPENKO, T.; GERMAS, M., inzh.; PETERSON, A., inzh.; BEN'YAMINOV, S., inzh.; GLEBOV, V., inzh.

Exchange of experience. Avt. transp. 43 no.4:49-52 Ap '65. (MIRA 18:5)

PETERSON, A., inzh.

Organization of log handling in bundles in the Baltic Sea basin. Mor.flot 19 no.11:30-32 N '59. (MIRA 13:3)

1. Leningradskiy port.
(Baltic Sea region--Cargo handling)
(Lumber--Transportation)

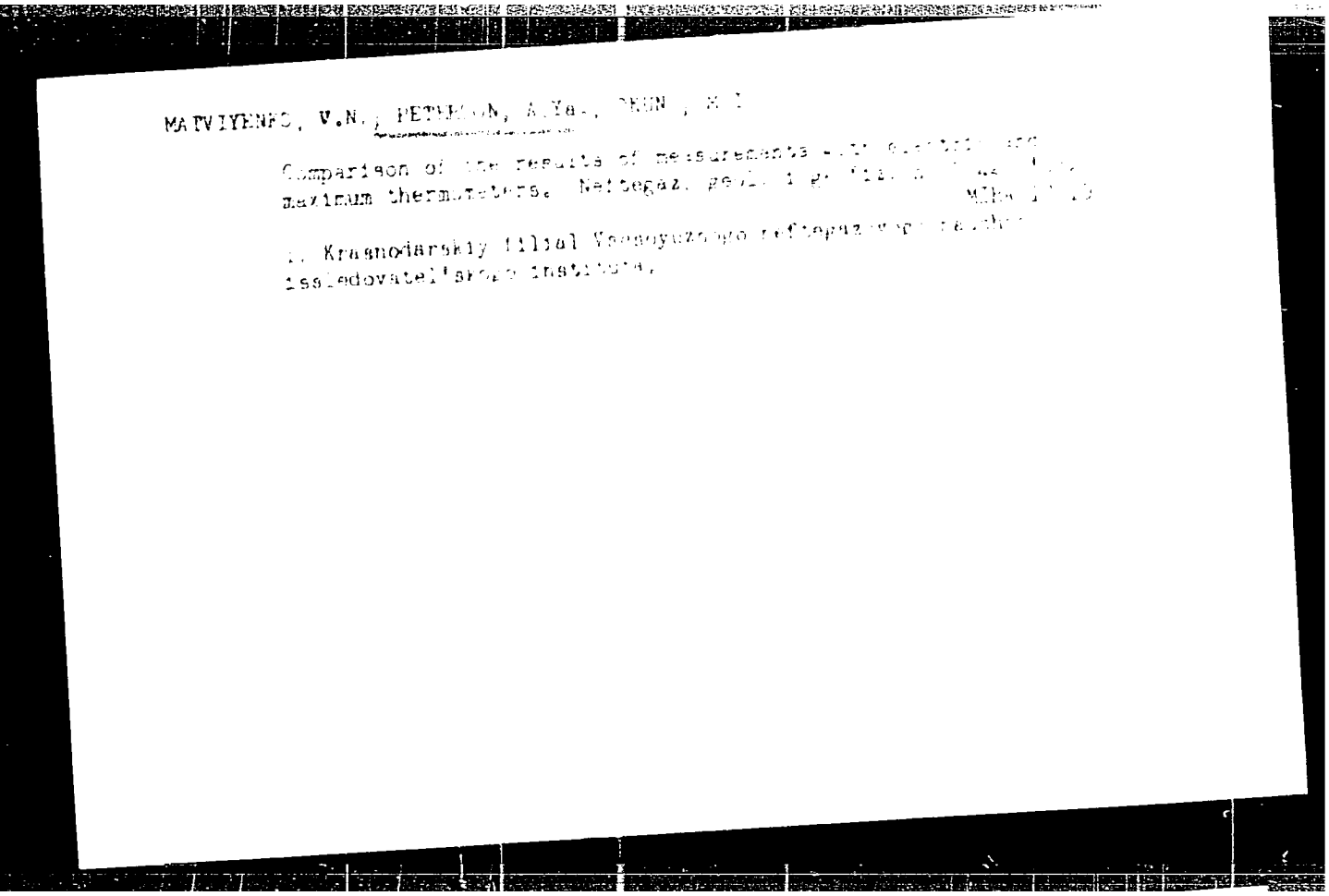
PETERSON, A.

442

Sel'skokhozyaistuennaya arrel' "Sarkanays Oktobris" Tsesisskogo Rayona. Riga, Largosizdat, 1954. 100 s S ill. 20 sm. (O pyt peredouikov sel'skogo Khozyaystua). 3,000 ekz. 1 4. 40 K. Na latysh. yaz. (54-55020) 338.1K (47.43)

SO: Knizhanaya, Letopis, Vol. 1, 1955

PETERSON, A.M.
L.A. MANNING, U.R.S.I. PROC. IXth Gen Assembl., 8, Pt II,1950,
191-2



MATVIYENKO, V.N.; PETRENKO, A.Ya., [illegible]

Comparison of the results of measurements [illegible] maximum thermometers. Neftegaz. geol. i geofiz. [illegible]

1. Krasnoyarskiy filial Vsesoyuznogo neftegazovogo nauchno-issledovatel'skogo instituta.

PETERSON, A.Ya.

Estimating the oil saturation of mudded off reservoir rocks.
Izv. vys. uchob. zav., neft' i gaz 7 no.9:15-18 '64. (MIRA 17:1

1. Groznenskiy neftyanoy institut.

PETERSON, A.Ya.

Experience in the preparation and investigation of artificial rock specimens. Izv.vys.ucheb.zav.; neft' i gaz 6 no. 12:51-56 '63. (MIRA 17:5)

1. Groznenskiy neftyanoy institut.

PETERSON, A. Yu.

"Sbor i obrabotka etnograficheskim materialov po narodam [illegible] v Gosudarstvennom etnograficheskom muzee Estonskoy SSR v [illegible]."

report submitted for 9th Intl Cong, Anthropological & Ethnological Sciences, Moscow, [illegible] Aug 73.

PETERSON, B.

Labor reserves in a seasonal industry. Sots.trud.no.9:102-104 S '56. (MLRA 9:12)

1. Ekonomist Petrovskogo spirtozavoda Kalininskogo spirtotresta.
(Distilling industries)

PETERSON, B. (Shillingaryud, Shvetsiya).

Receiving foreign telecasts in Sweden. Radio no.12: 35-36 D '56. (MLRA 10:2)

(Sweden--Television)

T-7

USSR/Human and Animal Physiology - Digestion.

Abs Jour : Ref Zhur - Biol., No 7, 1958, 31883

Author : Peterson, B.Ye., Khamov, Yu.
Inst :
Title : Morphological Changes in the Small Intestinal Mucosa after Full Removal of the Stomach in Experiment.

Orig Pub : Byul. nauchn. rabot. Gor'kovsk. med. in-ta, Gor'kiy, 1957, 104-107.

Abstract : No abstract.

Card 1/1

PETERSON, B.Ye. (Gor'kiy)

Apparatus for local infiltration anesthesia. Eksp. khir. 3 no.6:57 N-D '58. (MIRA 12:1)

(LOCAL ANESTHESIA--EQUIPMENT AND SUPPLIES)

PETERSON, B.Ye., dotsent

Epiphysial cartilage of child cadavers as plastic material for reconstructive operations. Ortop.travm.i protez. 20 no.4:29-34 Ap '59. (MIRA 13:4)

1. Iz kliniki fakul'tetskoy khirurgii (zav. - zasl.deyatel' nauki prof. Ye.L. Berezov) Gorkovskogo instituta (dir. - dots. N.N. Mizinov).

(CARTILAGE, transpl.
epiphysial cartilage from child cadavers as plastic material for reconstructive surg. (Rus))
(SURGERY, PLASTIC
same)

PETERSON, B.Ye.

Two unusual cases of cranial foreign bodies. Zhur. nevr. i psikh. 59 no.5:593-594 '59. (MIRA 12:7)

1. Fakul'tetskaya khirurgicheskaya klinika (dir. - prof. Ye.L. Berezov) Gor'kovskogo meditsinskogo instituta.
(BRAIN, for. bodies, causing schizophrenia (Rus))
(SCHIZOPHRENIA, etiol. & pathogen. brain for. bodies (Rus))

PETERSON, B. Ye. Doc Med Sci -- "Comparative evaluation of esophagus-intestinal and esophagus-gastric anastomoses from the point of view of inadequacy of sutures." Mos, 1960 (Acad Med Sci USSR). (KL, 1-61, 205)

KRAKOVSKIY, N.I., prof.; PETERSON, B.Ye., dotsent (Moskva)

Some problems in esophageal and gastric surgery in cancer. Sov. med. 25 no.8:148-149 Ag '61. (MIRA 15:1)
(STOMACH--CANCER) (ESOPHAGUS--CANCER)
(ALIMENTARY CANAL--SURGERY)

PETERSON, Botis Yevgen'yevich; DEKHTYAR', Ye.G., red.; BASHMAKOV, G.M., tekhn. red.

[Anastomoses in gastrectomies and resection of the esophagus] Anastomozy pri gastrektomii i rezektsii pishchevoda. Moskva, Medgiz, 1962. 166 p. (MIRA 15:11)
(STOMACH--SURGERY) (ESOPHAGUS--SURGERY)
(INTESTINES--SURGERY)

SHABAD, L. M.; PETERSON, B. Ye.

Nikolai Nikolaevich Blokhin (on his 50th birthday). Vop. onk. 8 no.4:115-117 '62. (MIRA 15:4)

(BLOKHIN, NIKOLAI NIKOLAEVICH, 1912-)

PETERSON, B.Ye.; KALININA, T.V.

Immediate results of gastrectomy for cancer of the stomach using the PKS-60 apparatus for applying an esophago-intestinal anastomosis. Vest.AMN SSSR 17 no.6:35-41 '62. (MIRA 15:8)

1. Institut eksperimental'noy i klinicheskoy onkologii AMN SSSR i Institut eksperimental'noy khirurgicheskoy apparatury i instrumentov Ministerstva zdravookhraneniya SSSR.
(STOMACH--SURGERY) (SURGICAL INSTRUMENTS AND APPARATUS)
(STOMACH--CANCER)

PETERSON, B.Ye.

Experience in using the UKL-60 apparatus in operations on the stomach and esophagus. Trudy NIIEKHAI no.5:81-84 '61. (MIRA 15:8)

1. Iz kliniki fakul'tetskoy khirurgii Gor'kovskogo meditsinskogo instituta im. S.M.Kirova.
(SUTURES) (STOMACH--SURGERY) (ESOPHAGUS--SURGERY)

PETERSON, B.Ye., dotsent

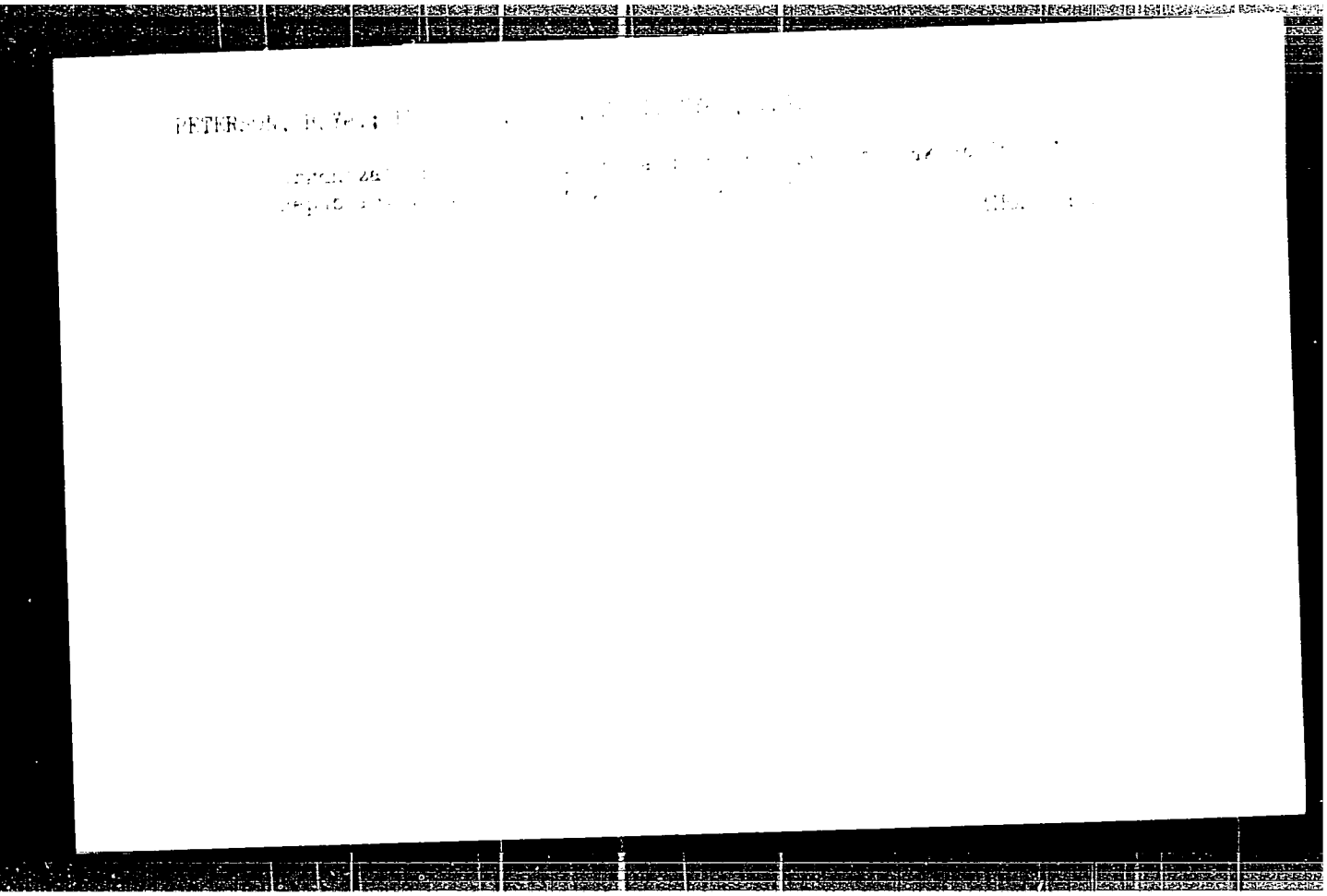
Adequacy of sutures in esophago-gastric and esophago-intestinal anastomosis. Khirurgiia no.10:58-63 '61. (MIRA 14:10)

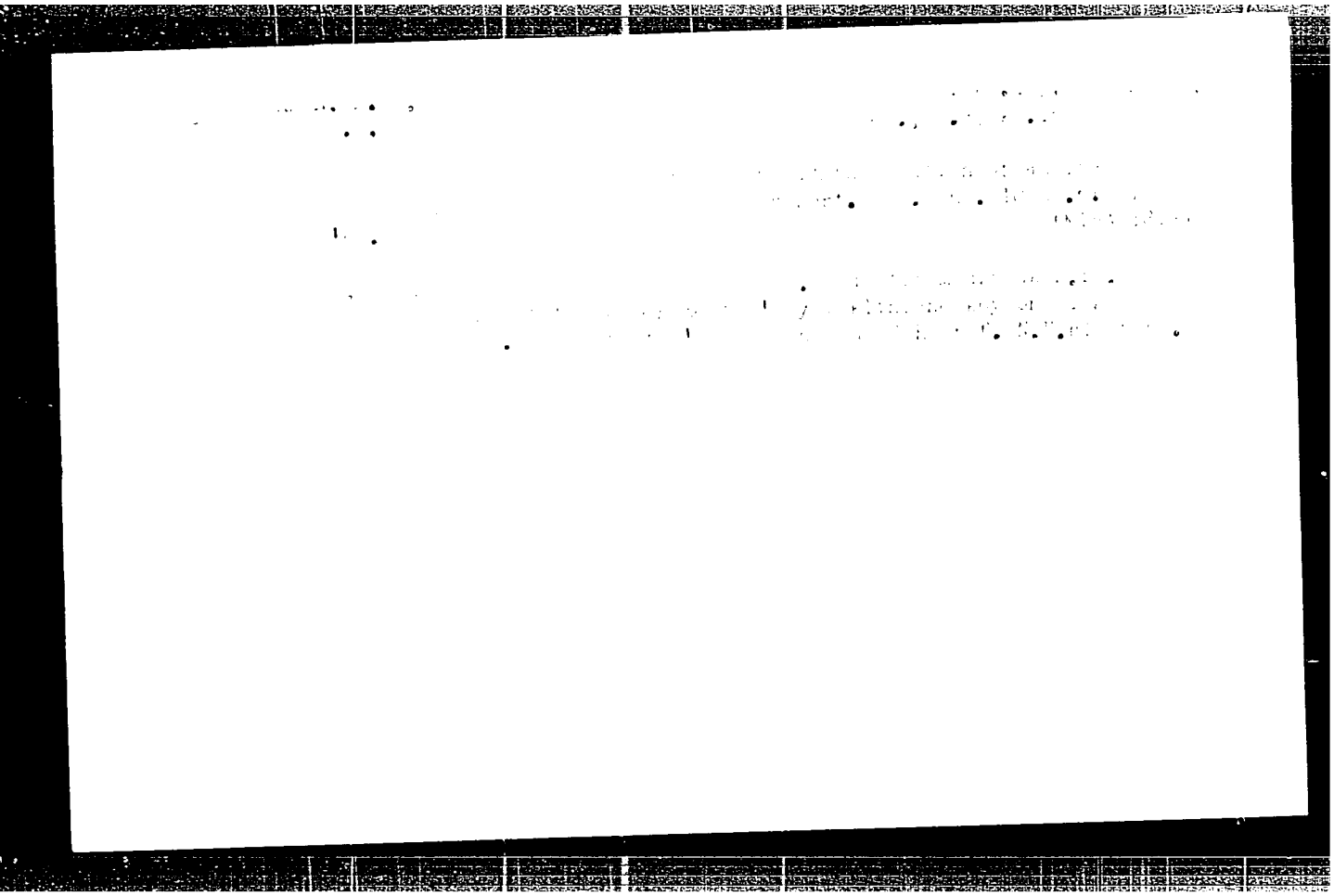
1. Iz kliniki fakul'tetskoy khirurgii (i.o. zav. - doktor med. nauk S.A. Zarubin) Gor'kovskogo meditsinskogo instituta.
(ALIMENTARY CANAL--SURGERY) (SUTURES)

PETERSON, B.Ye.; PROKOV, A.I.; SMULEVICH, V.B. (Moskva)

Simultaneous bilateral superior lobectomy in bilateral [illegible] cancer of the lungs. Grud. khir. 5 no.5:90-92 S-O '63. (MIR 17:8)

1. Adres avtorov: Moskva I-307, Volokolamskoye shosse, d.3, Institut onkologii.





PETERSON, B.Ye.; ABISATOV, Kh.A.

Pleuroplastic surgery on the bronchial stump in lung resection as a method of preventing a pleurobronchial fistula. Grud. khir. 6 no.5:75-81 S-O '64. (MIRA 18:4)

1. Khirurgicheskaya klinika (zav. - doktor med.nauk B.Ye.Peterson) Instituta eksperimental'noy i klinicheskoy onkologii (dir. - deystvitel'nyy chlen AMN SSSR prof. N.N.Blokhin) AMN SSSR, Moskva. Adres avtorov: Moskva, D-367, Volokolamskoye shosse, d.30, Institut eksperimental'noy i klinicheskoy onkologii.

PETERSON, B.Ye.

Discussions at the joint scientific session of the Section of Clinical Medicine of the Academy of Medical Sciences of the U.S.S.R. and the Ministry of Public Health of the Ukrainian S.S.R. on the problem "Cancer of the stomach." Vest. AMN SSSR 20 no.1:63-72 '65. (MIRA 19:1)

PETERSON, D. F.

PA 37/49T25

USSR/Engineering
Steam Boilers
Steam Engineering

Jul/Aug 48

"Plan for Organizing Intraboiler Processes With an Automatic Water Level in the Drum," S. I. Mochan, D. F. Peterson, Engineers Cen Sci Res Boiler and Turbine Inst imeni I. I. Polzunov, 4½ pp

"Kotloturbostroy" No 4

Examines some systems of boiler arrangement. Shows that wash-drum system can furnish pure steam under severe initial conditions. It is free from drawbacks of systems now used. Scheme has the merit of

37/49T25

USSR/Engineering (Contd) Jul/Aug 48

automatic control of water level in the drum feeding the circulation tubes. Includes five diagrams.

37/49T25

CA PETERSON D. F.

/7

Investigation of water tube boiler characteristics ... and D. F. Peterson (Central Boiler and Turbine Research Inst., Leningrad). *Eng. and Boiler House* ... 65, 74-7. Various methods for securing min. steam contamination by appropriate design of the boiler circuit are discussed, and a description is given of a novel method of steam purification involving double washing of the boiler steam. R. W. Ryan

PETERSON, D. F.

2

3914. USE OF NATURAL CIRCULATION IN 165 ATH BOILERS. Peterson, D.F. and Krasyakova, L.Yu. (Energomashinostroenie (Power Mach., U.S.S.R.), Feb. 1956, (2), 1-10). Basic problems of circulation efficiency encountered in examining the first boilers to operate at 165 kg/sq.cm pressure are touched upon in the article, which also discusses the circulation system of extra high pressure boilers, circulation in the baffles during the first period of operation, measures for preventing the trapping of steam in water supply pipes, circulation after elimination of trapped steam, and the effect of slagging on circulation efficiency. C.E.A.

Cand. Tech. Sci.

Peterson, D. F.

3

799. [illegible]DINATION OF WATER IN BOILERS. Mochan, S.I., Peterson, D.F., and Ginsey, B.D. (Energomashinostroenie (Pwr Mach., U.S.S.R.), May 1956, (5), 1-6). The procedure used in the detection of breakdown of circulation resulting from the occurrence of stagnant conditions of water in the rising tubes of a boiler permits water velocity measurement of [illegible] 0.002 m/s. The ratio of useful pressure heads to the rate of circulation and the results of investigation of temperature conditions in the tube on failure are noted.

O.R.A.