Quasilinear parabolic equations...

with the conditions $u^{\tau}\big|_S = 0$, $u^{\tau}(t, x) = u_0^{\tau}(x)$ for $-\tau \leq t \leq 0$,

where a_{ij}^{τ}, B_i^{τ}, c^{τ}, f^{τ} are bounded functions, uniformly smooth in τ, converging in R_N in the mean to a_{ij}, $\frac{\partial b_i}{\partial u}$, c, f, where $c(t, x, u)u + f(t, x) \equiv \sum_{i=1}^{n} (b_i)_{x_i} + a$; u_0^{τ} are functions finite in Ω, being uniformly bounded with respect to τ, $u_0^{\tau} \to u_0(x)$ for $\tau \to 0$ in the mean, $f^{\tau} = 0$ on the boundary of Ω; $c^{\tau} \leq c_0$

Adjoining the existence and uniqueness of a generalised solution of the Cauchy problem for (5.1) in $H\{0 \leq t \leq \tau, -\infty < x_i < \infty\}$ with the conditions:

$$u(0, x) = u_0(x), \quad |u_0(x)| \leq \text{Min } E_n\{-\infty < x < +\infty\} \quad (5.16)$$

is proved, where $u_0(x)$ is square-summable in the whole E_n.

§6 contains:
Theorem 19: Let u(x) be in Ω the solution of the elliptic equation

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Quasilinear parabolic equations ..

$$\sum_{i,j=1}^{n} \frac{\partial}{\partial x_i} \left(a_{ij}(x, u) \frac{\partial u}{\partial x_j} \right) + b(x, u, u_x) = 0 \qquad (6.2)$$

satisfying on the boundary S of

$$u|_S = \Psi|_S \qquad (6.3)$$

Let $|u| \leqslant \tilde{M}$; $\Psi(x) \in C^{2+\nu}$, $\Omega \in A^{2+\nu}$. For $x \in \overline{\Omega}$ and $|u| \leqslant \tilde{M}$ let

a.) $a_{ij} = a_{ji}$; $\mu_1 \sum_{i=1}^{n} \xi_i^2 \leqslant \sum_{i,j=1}^{n} a_{ij} \xi_i \xi_j \leqslant \mu_2 \sum_{i=1}^{n} \xi_i^2$; $0 < \mu_1 \leqslant \mu_2$

b.) $|b| \leqslant [\lambda(p) + \varkappa](p^2 + 1)$, where $p = |\operatorname{grad} u|$, $[\lambda(p) + \varkappa]p$ is a positive increasing function for $p \geqslant 0$, $\lambda(p)$ bounded, $\lim_{p \to \infty} \lambda(p) = 0$, $0 \leqslant \varkappa < \tilde{M}$ with $\tilde{M}_1$ defined by the data of the problem (6.2), (6.3) and $\tilde{M}$; $|b_{x_k}| + |b_u| \leqslant B_0(p^2 + 1)$; $|b_{u_{x_k}}| \leqslant B_1(p + 1)$

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c.) in every finite part of the domain $\{x \in \overline{\Omega},\ |u| \leq M,\ -\infty < u_{x_i} < +\infty\}$ holds $a_{ij} \in C_{2+\nu}$ with respect to x and u, $b \in C_{1+\nu}$ in x, u, u_{x_i}.

Then in Ω the apriori estimation holds:

$$|u|_{2+\nu} \leq M, \tag{6.4}$$

where M is determined by the data of the problem (6.2), (6.3).

Theorem 20 states that under the suppositions of theorem 19 there exists a solution of (6.2), (6.3), in case there exists an apriori estimation, uniform with respect to k, $0 \leq k \leq 1$, of the absolute values of the solutions of the equation family

$$\sum_{i,j=1}^{n} \frac{\partial}{\partial x_i} \left(a_{ij}\ (x,\ ku)\ \frac{\partial u}{\partial x_j}\right) + b(x,\ ku,\ ku_x) = 0$$

with the conditions (6.3).

The author mentions S. N. Bernshteyn, A. V. Grekov, A. F. Filippov,

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S/042/61/016/005/002/005
C111/C444

Quasilinear parabolic equations...

Yu. A. Dubinskiy, S. L. Sobolev.

There are 24 Soviet-bloc and 18 non-Soviet-bloc references. The four most recent references to English-language publications read as follows: A. Friedman, On quasi-linear parabolic equations of the second order II, Journ. Math. and Mech. 9, no. 4 (1960), 539 - 555; A. Friedman, Boundary estimates for second order parabolic equations and their applications, Journ. Math. and Mech. 7, no. 5 (1958), 771 - 791; A. Friedman, Mildly non-linear parabolic equations with application to flow of gases through porous media, Arch. Ration. Mech. and Analysis 5, no. 3 (1960), 138 - 248; I. Nash, Continuity of solutions of parabolic and elliptic equations, Amer. Journ. Math. 80, no. 4 (1958), 931 - 954; perevod: Matematika 4, no. 1 (1960), 31 - 52.

SUBMITTED: May 4, 1961

Card 16/16

16.3500 S/038/61/025/001/001/003
C111/C222

AUTHOR: Oleynik, O.A.

TITLE: Boundary value problems for linear equations of elliptic and parabolic type with discontinuous coefficients

PERIODICAL: Akademii nauk SSSR. Izvestiya. Seriya matematicheskaya, v.25, no.1, 1961, 3-20

TEXT: Given the elliptic equation

$$\sum_{i,j=1}^{n} \frac{\partial}{\partial x_i} \left(a_{ij}(x) \frac{\partial u}{\partial x_j}\right) + \sum_{i=1}^{n} b_i(x) \frac{\partial u}{\partial x_i} + c(x)u = f(x) \qquad (1)$$

where $a_{ij} = a_{ji}$; $\sum a_{ij} \alpha_i \alpha_j \geqslant 0$; $c \leqslant 0$ and $c < 0$ if $f \not\equiv 0$; $x=(x_1,\ldots,x_n)$; a_{ij}, b_i, c, f are functions being sufficiently smooth everywhere in the region Ω with the exception of the points of certain smooth $(n-1)$-dimensional surfaces, where they may have discontinuities of first kind. The mentioned surfaces divide Ω into the subregions Ω_i $(i=1,\ldots,m)$. Let S_{kl} be the boundary surface between Ω_k and Ω_l, σ be the boundary of Ω, S be the set of points of all S_{kl} $(k,l=1,\ldots,m)$.

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Boundary value problems....

A function $u(x)$ continuous in $\Omega + \sigma$ which in Ω-S satisfies (1) and which satisfies the conditions

$$u|_{\sigma} = \varphi \tag{2}$$

$$a_k \frac{du}{dN_k} = a_l \frac{du}{dN_l} \quad \text{on } S_{kl} \tag{3}$$

is called the classical solution of the Dirichlet problem for (1). Here φ is a given function continuous on σ; $a_j(x_1,\ldots,x_n)$ $(j=1,\ldots,n)$ is a given smooth positive function in $\overline{\Omega}_j$, $\frac{d}{dN} = \sum_{i,j=1}^{n} a_{ij}\cos(n,x_j)\frac{\partial}{\partial x_i}$, where n is the normal direction of S_{kl}.

A generalized solution is a function $u(x) \in W_2^1(\Omega)$ which satisfies (2) and has the property that for every $F(x) \in W_2^1(\Omega)$ which vanishes on σ

$$\iint_{\Omega}\left[\sum_{i,j=1}^{n} aa_{ij}\frac{\partial u}{\partial x_i}\frac{\partial F}{\partial x_j} + \sum_{i,j=1}^{n}\frac{\partial a}{\partial x_i}a_{ij}\frac{\partial u}{\partial x_j}F - \sum_{i=1}^{n} ab_i\frac{\partial u}{\partial x_i}F - acuF + sfF\right]d\Omega = 0 \tag{4}$$

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is satisfied, where $a(x_1,\ldots,x_n)$ is a function in Ω which is identical with $a_j(x_1,\ldots,x_n)$ in points of Ω_j.

The author proves the uniqueness and existence of the classical and the generalized solutions. Especially it is shown that the generalized solution is classical if the coefficients of (1) outside S have a sufficient number of bounded derivatives. The proofs are given partially under very restricting assumptions (e.g. $b_i \equiv 0$ and a_i constant in Ω_i), but it is pointed out that the assertions can also be proved under more general assumptions. The maximum principle of the author (Ref.7: Matem. sborn. v.30, no.3 (1952),695-702) is used essentially.

Then the author considers the first boundary value problem for the parabolic equation

$$a_0(t,x)\frac{\partial u}{\partial t} = \sum_{i,j=1}^{n}\frac{\partial}{\partial x_i}\left(a_{ij}(t,x)\frac{\partial u}{\partial x_j}\right)+\sum_{i=1}^{n}b_i(t,x)\frac{\partial u}{\partial x_i}+c(t,x)u+f(x) \qquad (10)$$

in the cylinder $Q\{\Omega\times[0,T]\}$, where the coefficients may also be discontinuous on certain surfaces. The author proves the existence and

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Boundary value problems...

uniqueness of the solution.
The results of the present paper are already briefly given in a paper by the author (Ref.5: Uspekhi matem.nauk v.14, no.5,1959,164-166). The author mentions S.N.Bernshteyn and S.M.Nikol'skiy. There are 14 Soviet-bloc and 1 non-Soviet-bloc references. The reference to the English-language publication reads as follows: Friedman A., Boundary estimates for second order parabolic equations and their applications, J.Math. and Mech., v.7,no.5 (1958),771-791.

SUBMITTED: December 24, 1959

Card 4/4

for the Cauchy problem ($t > 0$) for

$$\partial u/\partial t + \partial \varphi(u)/\partial x = 0 \qquad (1)$$

with the condition

$$u(0,x) = u_0(x) \qquad (2)$$

Card 1/5

Convergence of certain difference...

Then the differential-difference scheme of Rothe is considered for the boundary value problem

$$u|_{t=0} = u_0(x), \qquad u|_{x=0} = u_1(t) \tag{5}$$

for the equation (1) in the region $\{t \geq 0,\ x \geq 0\}$; the scheme is described by

$$du^{n+1}/dt + [\varphi(u^{n+1}) - \varphi(u^n)]/l = 0, \tag{6}$$

where $n = 0,1,2,\ldots$; $u^n(t) = u_1(t,nl)$; $u^0(t) = u_1(t)$; $u^n(0) = u_0(nl)$, and $|u_0(x)| \leq M$, $|u_1(t)| \leq M$, $\varphi'(u) > 0$ are assumed for $|u| \leq M$, $t, x \geq 0$.

As a third example the author considers the equation

$$\partial^2 u/\partial x^2 = c\phi(u)/\partial t \tag{10}$$

in $Q\{0 \leq t \leq T,\ 0 \leq x \leq 1\}$ with the conditions $u(0,x) = u_0(x)$, $u(t,0) = u_1(t)$, $u(t,1) = u_2(t)$. $\phi(u)$ is continuous for $u \geq 0$, and $\phi'(u) > 0$ for $u > 0$; $u_0(x)$, $u_1(t)$, $u_2(t)$ are non-negative. The scheme is set up in the form

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Convergence of certain difference...

$$d^2u^k/dx^2 = [\Phi(u^k) - \Phi(u^{k-1})]/h \qquad (11)$$

with

$$u^k(x) = u_h(kh, x),\ k=1,2,\ldots; \qquad u^0(x) = u_0(x),\ u^k(0) = u_1(kh),\ u^k(1) = u_2(kh). \qquad (12)$$

It is easy to show the existence of the solutions u^k of (11),(12) and their uniform boundedness with respect to h. Let v^k be the solution of the same scheme (11),(12) with the step h/2. Let $\bar{u}^k = \sum_{m=0}^{k} u^m h$, $\bar{v}^k = \sum_{m=0,1/2,\ldots}^{k} v^m h/2$. It holds $d^2\bar{u}^k/dx^2 = \Phi(u^k) - \Phi(u^0) + u_0''$, $\frac{d^2\bar{v}^k}{dx^2} = \Phi(v^k) - \Phi(v^0) + u_0'' \frac{h}{2}$, $k=1,2,\ldots$. For $W^k = \bar{u}^k - \bar{v}^k$ one obtains the equation

$$d^2W^k/dx^2 = \Phi'(W^k - W^{k-1})/h + 1/2\ \Phi'(v^{k-1/2} - v^k) + u_0'' h/2;$$

$$W^0 = 0,\ |W^k(0)| \leq M_1 h,\quad |W^k(1)| \leq M_2 h \qquad (13)$$

if it is assumed that $u_1(t)$, $u_2(t)$ are of bounded variation. If

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Convergence of certain difference...

$$v^k - v^{k-1}/2 \leq 0 \qquad (14)$$

is satisfied then

$$d^2w^k/dx^2 - (w^k - w^{k-1})/h \geq u_0''(x)h/2 \geq M_3 h. \qquad (15)$$

From (13) and (15) it follows that $w^h - M_4 h, (\bar{u}^k - 2M_4 h) - (\bar{v}^k - 2M_4 h/2) \leq 0$, i.e. $\bar{u}^k - 2M_4 h$ is a monotonely decreasing function of h. Herefrom there follows the weak convergence of u_h for $h \to 0$. Using (14) then it results that u_h converges almost everywhere in Q (it is assumed that $u_h(t,x) = u^k(x)$ for $(k-1)h \leq t \leq kh$). In an analogous manner the proof of convergence is given in the case

$$v^k - v^{k-1}/2 \geq 0. \qquad (16)$$

There are 3 Soviet-bloc and 1 non-Soviet-bloc references. The reference to the English-language publication reads as follows: P.Lax, Comm. on Pure and Appl.Math., 7, 159 (1954).

21555

S/020/61/137/003/004/030
C111/C222

Convergence of certain difference....

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

PRESENTED: October 28, 1960, by I.G.Petrovskiy, Academician

SUBMITTED: October 27, 1960

Card 5/5

23802
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C 111/ C 222

16,3500

AUTHOR: Oleynik, O. A.

TITLE: Quasilinear parabolic equations with many variables

PERIODICAL: Akademiya nauk SSSR. Doklady, v. 138, no. 1, 1961, 43-46

TEXT: The author proves the existence and uniqueness of the classical solution of the Cauchy and first boundary value problem for a class of quasilinear parabolic equations of first order. An approximate method of solution is given.

The author considers equation

$$\sum_{i,j=1}^{n} \frac{\partial}{\partial x_i}\left(a_{ij}(t,x,u)\frac{\partial u}{\partial x_j}\right) + a(t,x,u,u_x) - \frac{\partial u}{\partial t} = 0 \quad (1)$$

where $0 < \lambda_1(M) \leq \sum_{i,j=1}^{n} a_{ij}\alpha_i\alpha_j \leq \lambda_2(M)$ if $|\alpha| = 1$ for all $x, 0 \leq t \leq T$, $|u| \leq M$. The a_{ij}, a are sufficiently smooth, they and

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Quasilinear parabolic equations ...

their derivatives are bounded for $|u| \leq M$ (M -- arbitrary number) and all $p,x,t \geq 0$; $a_{...} = a_{...}$, $a_{...} \neq 0$.

1. Cauchy problem ... the author seeks a bounded solution of (1) which satisfies

$$u(0,x) = u_0(x), \quad \text{where} \quad |u_0(x)| < M_0 . \qquad (2)$$

Let M_l ($l = 1,2,\ldots$) be positive constants depending only on c, T, M_0, maxima of the amounts of the derivatives of $u_0(x)$, maxima of the amounts of a_{ij}, a and their derivatives for $0 \leq t \leq T$, $|u| \leq M_0 + A|c| = M_1$, where $A = \max |a(t,x,0,u_x)|$. Let u, u_{x_i}, u_t, $u_{x_i x_j}$ be bounded in Q and let them satisfy the Hölder conditions. Then the solution u(x,t) of (1) - (2) satisfies the estimations (lemma 1):

$$|u(t,x)| \leq M_1, \quad |u(t,x) - u_0(x)| \leq M_2 t \qquad (3)$$

Card 2/6

Quasilinear parabolic equations ...

Let $a_{ij} \subset C^{3+\alpha}$, $a \subset C^{2+\alpha}$, $0 < \alpha \leq 1$, $u_0(x) \subset C^3$ for $(t,x) \subset Q$ and $|u| \leq M_1$. Then (lemma 2) in $Q_1 \{ 0 \leq t \leq M_3, -\infty < x < +\infty \}$ it holds

$$|u_{x_i}| \leq M_4, \quad \text{for } i = 1, \ldots, n \quad . \qquad (4)$$

Lemma 3: In $M_3 \leq t \leq T$ it holds

$$|u_{x_i}| \leq M_9 \qquad 8)$$

Lemma 4: In Q the derivatives u_{x_i}, $u_{x_i} u_{x_j}, u_t$ satisfy the Hölder condition the Hölder constants and exponents of which depend only on M_1.

Let $u_0(x) \to 0$ for $|x| \to \infty$ and $a(t,x,0,0) \equiv 0$.

Theorem 1: Under the above assumptions on a_{ij}, a, $u_0(x)$, (1) - (2) has a unique solution u(x,t) in Q, where u, u_{x_i}, u_t, $u_{x_i x_j}$ are

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bounded in Q and satisfy the Hölder condition.

2. Boundary value problem. (1) is considered in D $\{\bar{\Omega} \times [0,T]\}$ where Ω is a region in the space x with a smooth boundary Γ. Let $S = \Gamma \times [0,T]$. The author seeks a solution of (1) satisfying

$$u|_{\Omega+S} = u_0(t,x) \text{ where } |u_0| \leq K_0. \qquad (10)$$

where $u_0(x,t)$ is sufficiently smooth in D and satisfies (1) on Γ.

In two lemmas the author gives a priori estimations being analogous to those of the above lemmas.

Theorem 2: Under the given assumptions with respect to a_{ij}, a, $u_0(t,x)$ and Γ there exists a unique solution u(t,x) of (1), (10) in D, where u_{x_i}, u_t, $u_{x_i x_j}$ satisfy the Hölder condition in D.

The author considers (1) - (2), let $u_0(x)$ be bounded and summable in the square in R($-\infty < x < +\infty$). As an approximate solution

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Quasilinear parabolic equations ...

$u_\tau(t,x)$, $0 < \tau \leq 1$ of (1) - (2) the author takes the solution of

$$\frac{\partial u}{\partial t} = \sum_{i,j=1}^{n} \frac{\partial}{\partial x_i} \left(a_{ij}(t,x,u(t-\tau, x)) \frac{\partial u}{\partial x_j}\right) +$$

$$+ \bar{a}(t,x,u(t-\tau,x), u_x(t-\tau,x))\, u + a(t,x,0,u_y(t-\tau)) = 0 \quad (15)$$

$$u_\tau = u_{o\tau}(x) \text{ for } -\tau \leq t \leq 0 \quad (16)$$

where $u_{o\tau}$ are smooth functions uniformly bounded in τ, where $u_{o\tau} \to u_o(x)$ in $L_2(R)$ for $\tau \to 0$. The function $u(t,x) = \lim_{\tau \to 0} u_\tau$ is a generalized solution of (1), (2), since 1) $u(t,x)$ is bounded in Q and has generalized derivatives u_{x_i} of $L_2(Q)$; 2) $u(t,x)$ satisfies the Hölder condition for $t \geq t_o > 0$ for every t_o; 3) for every t_o for

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Quasilinear parabolic equations ...

every smooth finite $F(t,x)$ it holds

$$\int_{T \geq t \geq t_0} \int \left[\frac{\partial F}{\partial t} u + \sum_{i,j=1}^{n} a_{ij} u_{x_i} F_{x_j} + a_i \right] dxdt + \int_{t=t_0} F(t_0, x) u(t_0 x) dx = 0$$

4) $u(t,x)$ converges in the mean to $u_0(x)$ for $t \to 0$.

Theorem 3: The generalized solution $u(t,x)$ of (1) - (2) exists, is finite and is the limit value of the solutions u_τ of (15), (16).

There are 2 Soviet-bloc and 4 non-Soviet-bloc references. The three references to English-language publications read as follows: J. Nash, Am.J. Math., 80, no.4, 931 (1958). A. Friedman, J.Math. and Mech., 9, no. 4, 539 (1960), A. Friedman, J. Math. and Mech.,7,no.5,771 (1958).

PRESENTED: December 14, 1960, by J. G. Petrovskiy, Academician
SUBMITTED: December 13, 1960

Card 6/6

OLEINYNIK, O. A.

"On the equations of a boundary layer"

report submitted at the Intl Conf of Mathematics, Stockholm, Sweden, 15-22 Aug 62

OLEYNIK, O. A.

"Sur certaines equations paraboliques degenerees de la mecanique."
Report to be submitted for the International Colloquim on Partial Differential Equations (CNRS) Paris France, 25-30 June 1962.

S/042/62/017/003/001/002
B125/B104

AUTHORS: Il'in, A. M., Kalashnikov, A. S., Oleynik, O. A.

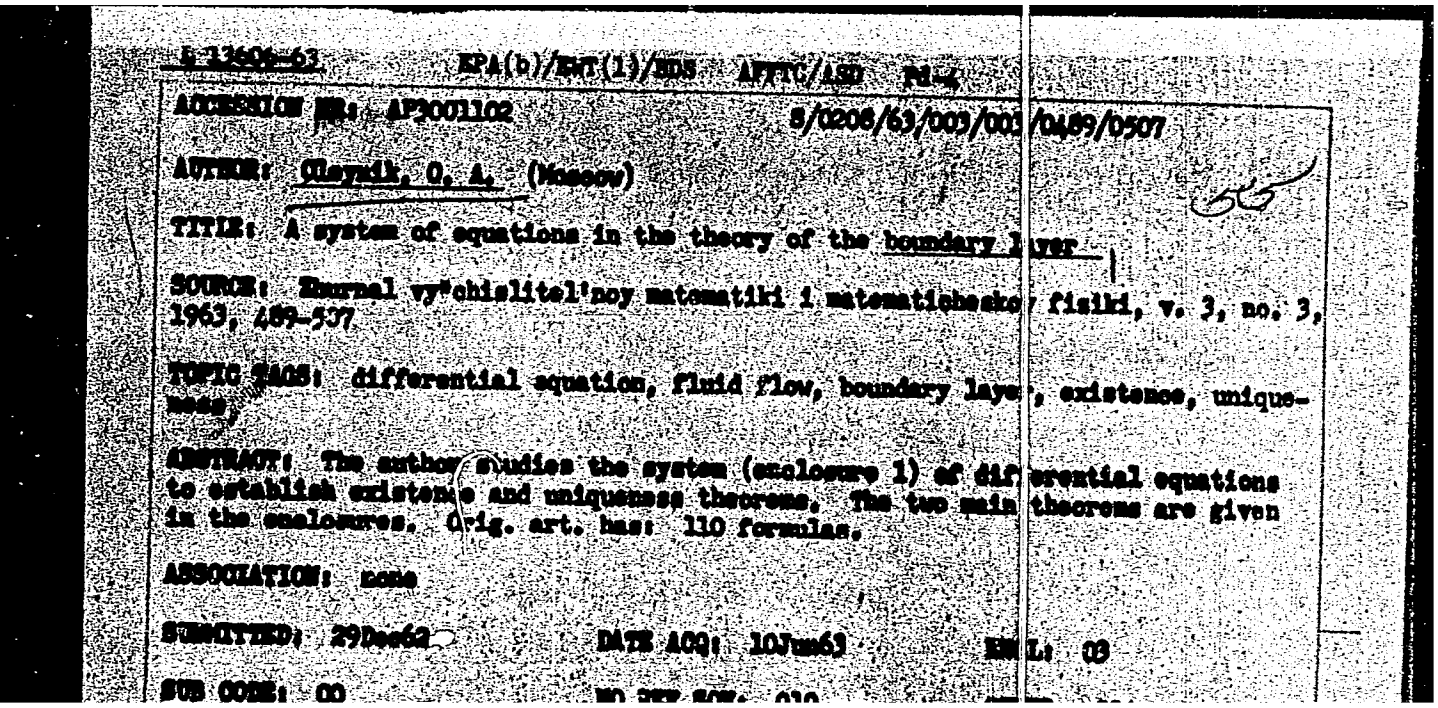
TITLE: Linear second-order parabolic equations

PERIODICAL: Uspekhi matematicheskikh nauk, v. 17, no. 3(105), 1962, 3-146

TEXT: This is a review of original papers on the theory of linear second-order parabolic equations published between 1906 and 1962. The classical and the generalized solutions of the boundary value problems and of the Cauchy problem are considered in particular. The most important English-language reference is: J. Nash, Continuity of solutions of parabolic and elliptic equations, Amer. Journ. Math. 80, no. 4 (1958), 931-954.

SUBMITTED: December 19, 1961

Card 1/1



L 13604-63 EPA(b)/EWT(1)/EDS AFFTC/ASD Pd-4

ACCESSION NR: AP3001102 S/0208/63/003/003/0489/0507

AUTHOR: Oleynik, O. A. (Moscow)

TITLE: A system of equations in the theory of the boundary layer

SOURCE: Zhurnal vychislitel'noy matematiki i matematicheskoy fiziki, v. 3, no. 3, 1963, 489-537

TOPIC TAGS: differential equation, fluid flow, boundary layer, existence, uniqueness

ABSTRACT: The author studies the system (enclosure 1) of differential equations to establish existence and uniqueness theorems. The two main theorems are given in the enclosures. Orig. art. has: 110 formulas.

ASSOCIATION: none

SUBMITTED: 29Dec62 DATE ACQ: 10Jun63 ENCL: 03

SUB CODE: MM NO REF SOV: 010

OLEYNIK, O.A.

International Colloquium on Partial Differential Equations held in Paris. Usp.mat.nauk 18 no.1:217-230 Ja-F '63. (MIRA 16:2)

(Mathematics—Congresses)
(Differential equations, Partial)

OLEYNIK, O.A., inzh.

Specialization of classification yards in areas of petroleum tank loading. Zhel.dor.transp. 45 no.8:51-53 Ag '63. (MIRA 16:9)
(Railroads--Yards) (Petroleum--Transportation)

AUTHOR: Oleynik, O. A.

TITLE: Prandtl's system of equations in the theory of a boundary layer

SOURCE: AN SSSR. Doklady, v. 150, no. 1, 1963, 28-31

TOPIC TAGS: boundary layer theory, Prandtl's system of equations

ABSTRACT: The author considers a system of equations of a boundary layer for incompressible liquids

$$u\frac{\partial u}{\partial x}+v\frac{\partial u}{\partial y}=\nu\frac{\partial^2 u}{\partial y^2}-\frac{dp}{dx},\quad \frac{\partial u}{\partial x}+\frac{\partial v}{\partial x}=$$

in a region $D_A\{0<x<A,\ 0<y<\infty\}$ satisfying the conditions

$$u|_{y=0}=0,\quad v|_{y=0}=v_0(x),\quad u|_{x=0}=u_0(y),\quad u(x,y)\to U(x)$$

uniformly in x as $y\to\infty$ where $U^2(x)+2p(x)=C$ (Bernoulli's law). It is indicated that no solution for the system may exist in the region D_A and for a sufficiently large A. However assuming that $\frac{dp}{dx}\le 0$ and $v_0(x)\le 0$ and by imposing further restrictions on the boundary condition, the author establishes existence and uniqueness theorems for the solution of the system in the region D_A for an

Card 1/2

ASSOCIATION: (Moscow State University)

OLEYNIK, O.A. (Moscow)

"On the system of Prandtl equations in the boundary layer theory"

Report presented at the 2nd All-Union Congress on Theoretical and Applied Mechanics, Moscow 29 Jan - 5 Feb 64.

PETROVSKIY, Ivan Georgiyevich; MYSHKIS, A.D.; GLEYNIK, O.A.; GAL'PERIN, S.A.; LYUBIC, Ye.M.; MOROZOVA, I.Ye., red.

[Lectures on the theory of ordinary differential equations] Lektsii po teorii obyknovennykh differentsial'nykh uravnenii. Izd.5., dop. Moskva, Nauka, 1964. 272 p. (MIRA 18:1)

OLEYNIK, O.A., inzh.

Organization of the transportation of liquid cargo. Zhel.dor.transp. 46 no.11:88 N '64. (MIRA 18:1)

PAKHMAN, T.A., kand. ekonom. nauk; MEZHOVA, R.V., kand. tekhn. nauk; OLEYNIK, O.A., inzh.; YUDINA, N.V.; BERNGARD, I.A., doktor tekhn. nauk, prof.; FROLOV, I.A., inzh.; TIKHONCHUK, Yu.N., kand. ekon. nauk; Prinimali uchastiye: AVAK'YANTS, N.M., inzh.; SHCHERBINA, R.M., inzh.; PETROVA, V.L., red.

[Organization of the railroad transportation of petroleum and chemical liquid cargo.] Organizatsiia zheleznodorozhnykh perevozok neftianykh i khimicheskikh nalivnykh gruzov. Moskva, Transport, 1964. 119 p. (Trudy Vsesoiuznogo nauchno-issledovatel'skogo instituta zheleznodorozhnogo transporta no.279). (MIRA 17:12)

OLEYNIK, O.A.

Smoothness of solutions to degenerate elliptic and parabolic equations. Dokl. AN SSSR 163 no.3:577-580 Jl '65. (MIRA 18:7)

1. Moskovskiy gosudarstvennyy universitet im. Lomonosova. Submitted November 23, 1964.

OLEYNIK, O.A. (Moskva)

Linear equations of the second order with a nonnegative characteristic form. Mat. sbor. 69 no.1:111-14 Ja '66. (MIRA 19:1)

1. Submitted July 23, 1965.

L 46723-66 EWT(1)/EWP(m) WW/DJ

ACC NR: AP6022520 SOURCE CODE: UR/0040/66/030/003/0417/0423

AUTHOR: Oleynik, O. A. (Moscow)

ORG: none

TITLE: On the stability of the solution of a system of boundary layer equations for nonstationary flow in incompressible fluids

SOURCE: Prikladnaya matematika i mekhanika, v. 30, no. 3, 1966, 417-423

TOPIC TAGS: incompressible fluid, incompressible flow, Prandtl boundary layer, DIMENSIONAL FLOW

ABSTRACT: The behavior of the solution of the system of nonstationary boundary layer equations for the two-dimensional flow of an incompressible fluid over an unlimited time is studied. The equations under consideration are

$$\frac{\partial u}{\partial t}+u\frac{\partial u}{\partial x}+v\frac{\partial u}{\partial y}=-\frac{1}{\rho}\frac{\partial p}{\partial x}+\nu\frac{\partial^2 u}{\partial y^2},\qquad \frac{\partial u}{\partial x}+\frac{\partial v}{\partial y}=0 \quad (1)$$

in the region $D\,(0\leqslant t<\infty,\ 0\leqslant x\leqslant x_0,\ 0\leqslant y<\infty)$

with the conditions

$$u|_{t=0}=u_0(x,y)$$

$$u|_{y=0}=0,\quad v|_{y=0}=v_0(t,x),\quad u|_{x=0}=u_1(t,y),\quad \lim_{y\to\infty}u(t,x,y)=U(t,x)$$

Card 1/3

It is assumed that the stationary solutions to (1), u^∞ and v^∞ have the following properties:

1. $\frac{\partial u^\infty}{\partial y} > 0$ when $0 \leq y < \infty$
2. u^∞ and $\frac{\partial u^\infty}{\partial y}$ have continuous and bounded first order partial derivatives with respect to x and y in the region

$$D^\infty \{0 \leqslant x \leqslant x_0,\ 0 \leqslant y < \infty\}$$

3. The derivatives $\partial^3 u^\infty/\partial y^3$ and $\partial u^\infty/\partial y$ exist.

It is also assumed that the nonstationary solutions have the following properties:

1. $\partial y/\partial u > 0$ for $0 \leq y < \infty$
2. u and $\partial u/\partial y$ have continuous and bounded partial derivatives of first order in t, x, and y.
3. the derivatives $\frac{\partial^3 u}{\partial y^3}$, $\frac{\partial u}{\partial y}$ exist and are continuous.
4. in D there holds the inequality

$$\left[\frac{\partial^3 u}{\partial y^3}\frac{\partial u}{\partial y} - \left(\frac{\partial^2 u}{\partial y^2}\right)^2\right]\left(\frac{\partial u}{\partial y}\right)^{-3} < K$$

L 46723-66

ACC NR: AP6022520

where K is some constant. These conditions are always fulfilled under natural restrictions on the given problem if x_0 is sufficiently small. Under these conditions it is shown that

$$\lim_{t\to\infty} u(t, x, y) = u^{\infty}(x, y)$$

for all x, y in D^{∞}, which means simply that the solution u of the system of equations for the boundary layer for nonstationary flow of a viscous incompressible fluid tends to the solution u^{∞} of the corresponding stationary problem as $t\to\infty$. The author thanks G. I. Barenblatt for reviewing the results of the article. Orig. art. has: 21 formulas.

SUB CODE: 20/ SUBM DATE: 22Feb66/ ORIG REF: 002/ OTH REF: 001

Card 3/3 ZC

L 03020-67 EWT(d) IJP(c)

ACC NR: AP6027949 SOURCE CODE: UR/0020/66/169/003/0525/0528

AUTHOR: Oleynik, O. A.

ORG: Moscow State University im. M. V. Lomonosov (Moskovskiy gosudarstvennyy universitet)

TITLE: The Cauchy problem and the boundary value problem for second order hyperbolic equations degenerate in a region and on its boundaries

SOURCE: AN SSSR. Doklady, v. 169, no. 3, 1966, 525-528

TOPIC TAGS: Cauchy problem, boundary value problem, hyperbolic equation, partial differential equation

ABSTRACT: The equation

$$L(u) \equiv -u_{tt} + (a^{ij}(t,x)u_{x_i})_{x_j} + b^i(t,x)u_{x_i} + b^0(t,x)u_t + c(t,x)u = f(t,x), \quad (1)$$

is studied, first in the case of the Cauchy problem in a region G, and under given initial conditions. The following theorem is proved: Theorem 1. Let the following inequality hold for the coefficients of equation (1):

$$Aa^{ij}\zeta_i\zeta_j + a_1^{ij}\zeta_i\zeta_j - \alpha(b^i\zeta_i)^2 > 0$$

Card 1/2 UDC: 517.946

L 47052-66 EWT(d)/EWT(l)/EWP(m) IJP(c) WW/JT
ACC NR: AP6019522 (A,N) SOURCE CODE: UR/0020/66/168/004/0751/0754

AUTHOR: Oleynik, O. A.

ORG: Moscow State University im. M. V. Lomonosov (Moskovskiy gosudarstvennyy universitet); Institute of Mechanical Problems, Academy of Sciences SSSR (Institut problem mekhaniki Akademii nauk SSSR)

TITLE: System of boundary-layer equations for a nonstationary flow of an incompressible fluid

SOURCE: AN SSSR. Doklady, v. 168, no. 4, 1966, 751-754

TOPIC TAGS: boundary layer equation, incompressible fluid, incompressible flow, nonstationary flow, viscous flow

ABSTRACT: The author describes a system of boundary-layer equations for a nonstationary two-dimensional flow of a viscous incompressible fluid

$$u_t + uu_x + vu_y = -p_x + \nu u_{yy}, \quad u_x + v_y = 0 \tag{1}$$

in the domain $D\{0 \leqslant t < t_0,\ 0 \leqslant x < x_0,\ 0 \leqslant y < \infty\}$, where $t_0 \leqslant \infty$, $x_0 \leqslant \infty$, with the conditions

UDC: 517.946

Card 1/2

$$u|_{t=0} = u_0(x, y), \quad u|_{y=0} = 0, \quad v|_{y=0} = v_0(t, x), \quad u|_{x=0} = u_1(t, y), \quad (2)$$
$$\lim_{y\to\infty} u(t, x, y) = U(t, x). \quad (3)$$

The functions p(t, x) and U(t, x) are related by the Bernoulli law $U_t + UU_x = -p_x$. It can be proved that the constructed solution of u(t, x, y) in problem (1)-(3) is stable when $t\to\infty$ in the sense that if the assigned functions p(t, x), U(t, x), v_0(t, x) tend respectively toward certain functions p(x), U(x), v_0(x) uniformly with respect to x when $t\to\infty$, and u_1 (t, y) at sufficiently large values of t does not depend upon t, then when $t\to\infty$ the function u(t, x, y) tends toward the longitudinal component of velocity u(t, x) of a stationary boundary layer corresponding to the limit functions p(x), U(x), v_0(x), U_1(y). The paper was presented by Academician Petrovskiy, I. G., 6 Mar 66. Orig. art. has: 11 formulas.

SUB CODE: 20/ SUBM DATE: 01Mar66/ ORIG REF: 005/ OTH REF: 001

VIL'YAMS, O.S.; BOL'SHOVA, N.M.; OLEYNIK, O.V.

Effect of the type of the sample on the mechanical properties indices of pipes made from 1810T steel. Zav.lab. 30 no.3: 350-351 '64. (MIRA 17:4)

1. Nikopol'skiy yuzhnotrubnyy zavod.

ACCESSION NR: AP4020049 S/0032/64/030/003/0350/0351

AUTHORS: Vil'yams, O. S.; Bol'shova, N. M.; Oleynik, O. V.

TITLE: The effect of sample form on the mechanical properties of steel Kh18N10T pipes

SOURCE: Zavodskaya laboratoriya, v. 30, no. 3, 1964, 350-351

TOPIC TAGS: steel pipe, steel Kh18N10T, mechanical property, elastic property, cold rolled pipe, high temperature treatment, elongation, rupture

ABSTRACT: Tensile tests of cold rolled pipes showed that their mechanical properties depend on the sample form. This relation was studied in samples 260 mm long and in segments 8 mm wide cut from the pipes produced of steel Kh18N10T (%: 0.09 C; 18.10 Cr; 10.22 Ni; 1.17 Mn; 0.50 Si; 0.011 S; and 0.035 P). The samples were treated thermally (700-1100C) before being tested in a 30-T machine at the rate of 4 mm/min before the metal flow started, and of 20 mm/min thereafter. The results revealed that the mechanical properties of the segments were better than those of the pipe samples, except for the local elongation (measured in the necked area) which was 3-6% larger in the pipe samples than in the segments. The plastic properties (elongation) of segments increased regularly

Card 1/2

ANIKIN, Yu.A.; OLEYNIK, P.F.; NESENENKO, V.V.

Epidemiology of an outbreak of epidemic encephalitis of unknown etiology in Leninogorsk, East Kazakhstan Province. Zhur.mikrobiol.,epid.i immun. 30 no.12:121 D '59. (MIRA 13:5)

1. Iz Leninogorskoy sanitarno-epidemiologicheskoy stantsii.
(LENINOGORSK--ENCEPHALITIS)

OLEYNIK, P.P.

Effect of environmental conditions on sugar accumulation in sweet sorghum. Agrobiologiia no.4:612-614 Jl-Ag '61.
(MIRA 14:7)

1. Nauchno-issledovatel'skiy institut sel'skogo khozyaystva TSentral'no-chernozemnoy polosy imeni V.V. Dokuchayeva, Voronezhskaya oblast'.
(Sorghum)

CLEYNIK, P.P., aspirant

Sowing legumes along with sugar sorgo as a stubble crop. Zhivotnovodstvo 23 no.6:60-64 Je '61. (MIRA 16:2)

1. Institut sel'skogo khozyaystva TSentral'no-chernozemnoy polosy imeni V.V.Dokuchayeva.
(Legumes) (Sorghum)

OLEYNIK, P.P.

Sowing sugar sorghum on stubble. Zemledelie 23 no.6:71-73 Je '61. (MIRA 14:6)

1. Nauchno-issledovatel'skiy institut sel'skogo khozyaystva TSentral'no-chernozemnoy zony imeni V. V. Dokuchayeva.
(Sorghum)

KOTOV, P.F., kand.sel'skokhozyaystvennykh nauk; OLEYNIK, P.P.

Aftermath and capacity of shoot reproduction of sweet sorghum.
Agrobiologiia no.5:791-793 S-O '62. (MIRA 15:11)

1. Nauchno-issledovatel'skiy institut sel'skogo khozyaystva
TSentral'no-chernozemnoy polosy imeni V.V.Dokuchayeva,
Voronezhskaya oblast'.
(Sorghum)

OLEYNIK, P.Z.; SOLOV'YEVA, N.T.; KUDRYASHEVA, N.I.

Finds of remains of the large gerbil in the northwestern Caspian Sea region. Sbor. nauch. rab. Elist. protivochum. sta. no. 1:167-171 '59. (MIRA 13:10)

(CASPIAN SEA REGION--GERBILS)

OLEYNIK, R.N.; SAKALI, L.I.

Total evaporation in Moldavia and the Ukraine. Trudy UkrNIGMI no.31:114-132 '62. (MIRA 16:11)

VITKOVSKIY, B.I.; GOYSA, N.I.; KONSTANTINOV, A.R.; KUDINA, A.V.; OLEYNIK, R.N.; SAKALI, L.I.

Meteorological conditions and heat balance of the underlying surface during the work of the expeditions of the Ukrainian Scientific Research Hydrometeorological Institute and the Main Geophysical Observatory in the summer of 1960 and 1961. Trudy UkrNIGMI no.35:3-17 '63. (MIRA 17:1)

KONSTANTINOV, A.R.; OLEYNIK, R.N.

Evaporation from the waste land of the Ukrainian steppes in the summer. Trudy UkrNIGMI no.35:109-115 '63.
(MIRA 17:1)

SAKALI, L.I.; OLEYNIK, R.N.

Heat consumption and evaporation in Moldavia and the Ukraine.
Trudy UkrNIGMI no.35:116-139 '63. (MIRA 17:1)

KONSTANTINOV, A.R.; KUDINA, A.V.; OLEYNIK, R.N.

Method for taking into account the effect of the sea on the temperature and moisture of the air above land. Trudy UkrNIGMI no.35:140-152 '63. (MIRA 17:1)

KONSTANTINOV, A.R.; GOYSA, N.I.; OLEYNIK, R.N.

Relation of transpiration to the spectral composition of irradiation. Trudy UkrNIGMI no.41:126-134 '64.

(MIRA 18:1)

KONSTANTINOV, A.R.; OLEYNIK, R.N.

Determining the evaporativity (maximum possible evaporation) from farm fields. Trudy UkrNIGMI no.41:135-153 '64.

(MIRA 18:1)

VOLYNETS, L.M.; ZHELEZNYAKOVA, T.V.; OLEYNIK, R.N.; PERILET, N.A.

Recording the intensity of direct solar radiation by individual portions of the spectrum. Trudy UkrNIGMI no.41:116-192 '64.
(MIRA 18:1)

OLEYNIK, S.A.

DEMIDOV, I.N., inzhener (st. Osnova); OLEYNIK, S.A., inzhener (st. Osnova).

Improving the braking of cars in hump yards. Zhel.dor.transp. 39 no.6:73 Je '57. (MLRA 10:7)
(Railroads--Hump yards)

OLEYNIK, S. F.

Oleynik S. F. - "Blood transfusion in nephrosis therapy," Vrach-eb. delo, 1949, No. 2, columns 143-48

SO: U-3566, 15 March 53, (Letopis 'Zhurnal 'nykh Statey, No. 14, 1949).

OLEYNIK, S.F.

OLEYNIK, S. F.

Preparation of the system of tubes for blood transfusion. Med. sestra, Moskva No. 12, Dec. 50. p. 23-4

1. Vinnitsa.

CIML 20, 3, March 1951

OLEYNIK, S.F.

OLEYNIK, S.F.; BOZHINSKIY, A.A.

History of blood transfusion in Russia. Klin.med., Moskva 18 no.11:91-92 Nov 50. (CIML 20:5)

1. Of the Department of Faculty Therapy (Head--Prof.V.A.Azletskiy), Vinnitsa Medical Institute.

1. OLEYNIK, S. F.

2. USSR (600)

4. Physicians

7. V. V. Sutugin., Akush. i gin., No. 1, 1952 Iz Vinnitskogo Meditsinskogo Instituta (Dir. - Prof. I. YA Deyneka)

9a. Monthly List of Russian Accessions, Library of Congress, March 1952, UNCLASSIFIED

OLEYNIK, S.P.

Blood transfusion in the treatment of endocarditis. Ter. arkh., Moskva 25 no.2:39-45 Mar-Apr 1953. (CIML 24:3)

1. Candidate Medical Sciences. 2. Of the Department of Faculty Therapy of Vinnitsa Medical Institute (Director -- Prof. I. Ya. Deyneka).

OLEYNIK, S. F.; PLIPENKO, V. A.

Blood Pressure

Nycto-hemeral variations of blood pressure in hospitalized patients. Klin. med. 31, No. 1, 1953.

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

OLEYNIK, S.F.:

OLEYNIK, S.F.: "Material on the characteristics of cardiac noise". Odessa, 1955. Odessa State Medical Inst imeni N. I. Pirogov. (Dissertations for the Degree of Candidate of Medical Sciences.)

So. Knizhnaya letopis'. No. 49, 3 December 1955. Moscow.

OLEYNIK, S.F.

[Blood transfusion in Russia and the U.S.S.R.; data on history, methods, and technics] Perelivanie Krovi v Rossii i SSSR; materialy k istorii, metodike i tekhnike. Kiev, Gos. med. izd-vo USSR, 1955. 418 p. (MLRA 10:2)
(BLOOD--TRANSFUSION)

OLIYNIK, S.F., kandidat meditsinskikh nauk

Clinical aspects of thrombosis of the superior vena cava. Terap. arkh. 27 no.1:75-77 '55. (MLRA 8:7)

1. Iz kafedry fakul'tetskoy terapii (zav. prof. B.S.Shklyar) Vinnitskogo meditsinskogo instituta.

(THROMBOSIS,
vena cava)
(VENA CAVA, diseases,
thrombosis)

OLEYNIK, S.F.

DEYNEKA, I.Ya, professor; OLEYNIK, S.F., kandidat meditsinskikh nauk

Modification of cardiac sounds during goiter surgery. Vest.khir. 75 no.3:73-80 Ap '55. (MLRA 8:7)

Iz kliniki obshchey khirurgii (zav.-prof. I.Ya.Deyneka) i kliniki gospital'noy terapii (zav.-prof. M.A.Yasinovskiy) Odesskogo gosudarstvennogo meditsinskogo instituta im. N.I.Pirogova.

(GOITER, surgery,
preop. cardiac sounds)
(CARDIAC MURMURS AND SOUNDS,
in goiter surg.)

Oleynik, S.F.

USSR/Human and Animal Physiology - Blood Circulation. R-5

Abs Jour : Referat Zhur - Biol., No 16, 1957, 70738

Author : Oleinik, S.F.
Title : Graphic Registering of Arterial Pressure by the Method of Krotkov-Yanovski.

Orig Pub : Klinich. Medizina, 1956, 34, No 7, 80-85

Abstract : A graphic method is proposed for the registering of sound phenomena in the peripheral arteries. (Phonosphigmography). Krotkov's tones were received by a microphone in the region of the elbow bend. To magnify the sound we used Magnitophone 'Dnieper I". Kymograph writing was produced by a lever connected by a rod to the membrane of the electromagnetic telephone. The cuff pressure was registered by a mercury manometer.

Card 1/1 - 3 -

Country : USSR
Category= : Human and Animal Physiology. T
Blood Circulation. The Heart.
Abs. Jour. : Ref Zhur-Biol., No 23, 1958, 106422

Author : Cleynik, S. F.
Institut. : Ukrainian Scientific Research Institute of
Title : Evaluating the Course of Heart Disease on the Basis of Heart Murmurs.

Orig. Pub. : Latriky po obmenu nauchn. inform. Ukr. n.-i. in-t klinich. meditsiny, 1957, vyp. 1, 122-123

Abstract : No abstract.

Card: 1/1
*Clinical Medicine.

OLEYNIK, S.F.

Priority of the description of two symptoms in cardiology. Sov.med. 21 Supplement:19 '57. (MIRA 11:2)

1. Iz gospital'noy terapevticheskoy kliniki i kafedry patologicheskoy fiziologii Odesskogo meditsinskogo instituta.
(HEART--DISEASES)

OLEYNIK, S.F., kand.med.nauk

Relation of cardiac murmurs to sounds as a differential sign. Terap. arkh. 29 no.1:63-70 Ja '57. (MIRA 10:12)

1. Iz gospital'noy terapevticheskoy kliniki (zav. - prof. M.A. Yasinovskiy) i kafedry patologicheskoy fiziologii (zav. - prof. N.N. Zayko) Odesskogo meditsinskogo instituta imeni N.I.Pirogova.
(CARDIAC MURMURS AND SOUNDS,
relation of murmurs to sounds as differential sign (Rus))

OLEYNIK, S.F., doktor med.nauk; BALABAYEVA, P.N.

Clinical features of necronephrosis. Vrach.delo no.2:143-145 F '58.
(MIRA 11:3)

1. Kafedra terapii (zav.-doktor med. nauk S.F.Oleynik) Zaporozhskogo instituta usovershenstvovaniya vrachey.
(KIDNEYS--DISEASES)

OLEYNIK, S.F., kand.med.nauk

Auscultation and palpation in determining maximum and minimum pressure in the brachial, temporal, femoral and common iliac arteries.
Sov.med. 22 no.11:116-118 N'58 (MIRA 11:11)

1. Iz kafedry terapii (zav. - kand.med.nauk S.F. Oleynik) Zaporozhskogo instituta usovershenstvovaniya vrachey imeni Gor'kogo (dir. - dotsent V.T. Karpukhin).
(BLOOD PRESSURE, determ
auscultation & palpation in determ. of brachial temporal, femoral & iliac artery pressure (Rus))

OLEYNIK, S.F., prof.

Rest and cardiac precautions in myocardial infarction. Terap. arkh. 30 no.12:3-15 D '58. (MIRA 12:1)
(MYOCARDIAL INFARCT, ther.
rest. & cardiac precautions (Rus))

OLEYNIK, S.F., prof.

Auscultation of heart murmurs at the mesocardial point. Vrach. delo no.1:93 '59. (MIRA 12:4)

1. Kafedra gospital'noy terapii (zav. - prof. S.F. Oleynik) Dnepropetrovskogo meditsinskogo instituta.
(HEART--SOUNDS) (AUSCULTATION)

GLEYNIK, S.P., kandidat meditsinskikh nauk (Odessa)

Frequency components of cardiac murmurs and sounds. Klin.med. 35 no.3:93-98 Mr '57. (MLRA 10:7)

1. Iz gospital'noy terapevticheskoy kliniki (zav. - zasluzhennyy deyatel' nauki prof. M.A.Yasinovskiy) i kafedry patologicheskoy fiziologii (zav. - prof. N.N.Zayko) Odesskogo meditsinskogo instituta imeni N.I.Pirogova (dir. - prof. [illegible].Ya.Deyneka)
(CARDIAC MURMURS AND SOUNDS
frequency components of (Rus))

OLEYNIK, S.F.

Cuff skin flap. Eksper. khir. 5 no. 2:51-60 Mr-Ap '60. (MIRA 14:1)

(SKIN GRAFTING)

OLEYNIK, S.F., prof. (L'vov)

Mesocardial point for the auscultation of the heart. Kaz. med. zhur. no.6:32-35 N-D '60. (MIRA 13:12)
(AUSCULTATION)

OLEYNIK, Stepan Fedorovich; KOSITSKIY, G.I., red.; LYUDKOVSKAYA, N.I., tekhn. red.

[Theory of heart sounds] Teoriia serdechnykh shumov. Moskva, Medgiz, 1961. 232 p. (MIRA 15:7)
(HEART—SOUNDS)

OLEYNIK, S.F., prof.

Resistance reactions in a healthy state and in pathology. Nauch. trudy L'vov.obl.terap.ob-va no.1:41-48 61. (MIRA 16:5)

1. Kafedra fakul'tetskoy terapii lechebnogo fakul'teta L'vovskogo meditsinskogo instituta.
(PHYSIOLOGY) (PHYSIOLOGY, PATHOLOGICAL)

OLEYNIK, S.F., prof.; BALABAYEVA, P.N.

Nature and mechanism of the cardiac impulse. Nauch.trudy L'vov. obl.terap.ob-va no.1:62-65 '61. (MIRA 16:5)

1. Kafedra fakul'tetskoy terapii lechebnogo fakul'teta L'vovskogo meditsinskogo instituta (zav. kafedroy - prof. S.F. Oleynik). (HEART BEAT)

OLEYNIK, S.F., prof.; ZUBOVA, R.F., assistent

Fluctuation of cholesterol content in the blood following a cholesterol load. Nauch. trudy L'vov. obl. terap. ob-va no.1: 66-70 '61. (MIRA 16:5)

1. Kafedra fakul'tetskoy terapii lechebnogo fakul'teta L'vovskogo meditsinskogo instituta (zav. kafedroy - prof. S.F. Oleynik).
(CHOLESTEROL)

OLEYNIK, S.F., prof.

Emotional impact on the patient of cardiovascular disorders. Kaz. med. zhur. no.6:7-10 N-D '61. (MIRA 15:2)

1. Gospital'naya terapevticheskaya klinika (zav. - prof. M.A.Yasinovskiy) Odesskogo meditsinskogo instituta i fakul'tetskaya teraprevticheskaya klinika (zav. - prof. S.F.Oleynik) L'vovskogo meditsinskogo instituta.
(CARDIOVASCULAR SYSTEM--DISEASES--PSYCHOSOMATIC ASPECTS)

OLEYNIK, S.F., prof.; BALABAYEVA, P.N., kand.med.nauk

Isovoluminal phases of the heart. Vrach.delo no.4:11-16 Ap'63.
(MIRA 16:7)

1. Kafedra fakul'tetskoy terapii lechebnogo fakul'teta L'vovskogo meditsinskogo instituta.
(HEART) (BLOOD-CIRCULATION)

ACC NR: AP7005684 SOURCE CODE: UR/0413/67/000/002/0156/0157

INVENTOR: Semenov, V. N.; Kutepov, M. A.; Oleynik, S. I.

ORG: None

TITLE: A double-chamber shock absorber. Class 62, No. 190787

SOURCE: Izobreteniya, promyshlennyye obraztsy, tovarnyye znaki, no. 2, 1967, 156-157

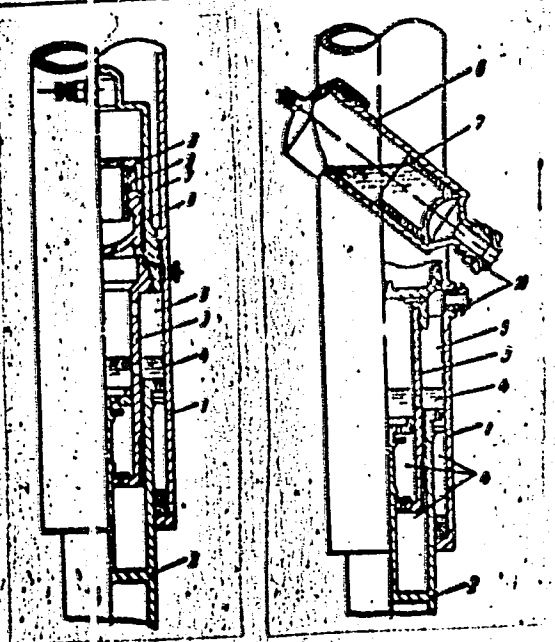
TOPIC TAGS: shock absorber, hydraulic equipment

ABSTRACT: This Author's Certificate introduces a double-chamber shock absorber which contains a cylinder, piston with seal and a diffuser tube fastened inside the cylinder. The cylinder also contains main air and hydraulic chambers. The installation is designed for increased operational reliability and provision is made for variation in the characteristics of shock absorption with simultaneous reduction in overloads. The device contains an auxiliary chamber which is separate from the main chamber and is made in the form of a cylinder equipped with a floating piston which has a control nut and washer. This auxiliary chamber is located in the shock absorber cylinder above the main fluid-air chamber, or outside the cylinder and connected to it by a pipeline. The air charge in this auxiliary chamber is greater than in the main chamber.

UDC: 629.135/138

Card 1/2

ACC NR: AP7005684



1--cylinder; 2--piston; 3--diffuser tube; 4--fluid cavity; 5--air cavity; 6--cylinder of the auxiliary chamber; 7--piston with seals; 8--nut; 9--washer; 10--fitting for the connecting pipeline

SUB CODE: 13/ SUBM DATE: 09Jun65

Card 2/2

OLEYNIK, S.U., kand. ekon. nauk.

Technical norms in Soviet machinery manufacturing. Trudy Khar'. inzh.-ekon. inst. 9:57-91 '57. (MIRA 11:6)
(Machinery industry--Product standards)

MAKSAKOV, V.; OLEYNIK, T.; ABRAMZON, B.

Device for determining meat tenderness. Mias.ind.SSSR 33 no.5:48-49 '62. (MIRA 15:12)

1. Nauchno-issledovatel'skiy institut zhivotnovodstva lesostepi i poles'ya UkrSSR (for Maksakov, Oleynik). 2. Nauchno-issledovatel'skiy institut maslo-zhirovoy promyshlennosti UkrSSR (for Abramzon).
(Meat—Testing)

MAKSAKOV, V.Ya.; MOSOLOV, N.I.; OLEYNIK, T.N.

Possibility of a direct-observation evaluation of cattle carcasses. Izv.vys.ucheb.zav.; pishch. tekh. no.:167-170 '63. (MIRA 16:8)

1. Nauchno-issledovatel'skiy institut zhivotnovodstva Lesostepi i Poles'ya UkrSSR.

(Meat industry)

UGNYACHEV, N.Ya., kand.tekhn.nauk; OLEYNIK, T.V.

Separate determination of sulfur dioxide and nitrogen oxides in the manufacture of sulfuric acid by the chamber process. Khim.prom. no.8:577-580 Ag '61. (MIRA 14:8)
(Sulfur dioxide) (Nitrogen oxide) Sulfuric acid)

AID P - 5043

Subject : USSR/Engineering

Card 1/1 Pub. 103 - 14/22

Authors : Oleynik, V. and V. Kapitel'man

Title : High speed milling of large steel plates

Periodical : Stan. i instr., 4, 40-41, Ap 1956

Abstract : For machining larger plates, e.g. 80x150x1050 or 60x1100x2180 mm, a special milling cutter 1130 mm in diameter and weighing 200 kilograms was designed and used in the 6662 model plano-milling machine manufactured by the Gor'kiy Milling Machine Plant. The authors give a concise description of the cutter, illustrating it with 3 drawings and 1 table.

Institution : As above

Submitted : No date

S/073/62/028/005/004/005
B103/B203

AUTHORS: Shen Ch'in-nang, Oleynik, V.A., and Polimarskiy Yu.K.

TITLE: Decomposition voltages of titanium, molybdenum, and tungsten oxides dissolved in fused borax

PERIODICAL: Ukrainskiy khimicheskiy zhurnal, v.28, no.5, 1962, 599-604

TEXT: This is a continuation of the work published in volume 27 of this journal, page 454, 1961. The decomposition voltages for various concentrations of the above oxides were investigated at 800°C and 900°C. The decomposition voltages for both pure TiO_2 and WO_3 and for their solutions in fused borax were theoretically calculated. The calculated decomposition voltages for pure TiO_2 are a little higher than those obtained in this work; this is believed to be due to cathodic depolarization. For WO_3 the calculated decomposition voltages are considerably lower than those obtained experimentally; this is explained by the co-deposition of tungsten and sodium on the cathode. There are 3 tables.

Card 1/2

DELIMARSKIY, Yu.K.; [illegible], I.G.; ZARUBITSKIY, O.G.; OLEYNIK, V.I.

Electrochemical processes in melts involving intermetallic compounds. Zhur. prikl. khim. 38 no.4 816-82[illegible] Ap '65.
(MIRA 18:6)

1. Institut obshchey i neorganicheskoy khimii AN UkrSSR.

S/0073/64/030/004/0370/0376

ACCESSION NR: AP4033699

AUTHOR: Kotorlenko, L. A.; Gardenina, A. P.; Oleynik, V. O.

TITLE: Oxidative destruction of polyamides I. Investigation of thermal and radiation oxidation of polycaprolactam by IR spectroscopy

SOURCE: Ukrainskiy khimicheskiy zhurnal, v. 30, no. 4, 1964, 370-376

TOPIC TAGS: polyamide, oxidative destruction, oxidation, thermal oxidation, radiation oxidation, polycaprolactam, IR spectra, methylene bond rupture, peptide bond rupture, stabilization, cross linkage, carbonyl containing compound formation

ABSTRACT: Polycaprolactam films were subjected to thermal oxidation at 120-200C in an atmosphere of oxygen, and to radiation oxidation at 30C; radiation was effected with cobalt-60, 25 roentgens/sec, and maximum exposure of 400 hours. The changes in the IR spectra were examined and interpreted. In both types of oxidation approximately the same decrease occurred in the relative optical density of the bands for the valency vibration C-H of the methylene groups, the amide I and amide II, indicating rupture of the methylene and the peptide groups. Increase, on oxidation, in the optical density of the 1713 cm^{-1} band of the C=O vibration

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ACCESSION NR: AP4033699

indicated the formation of carbonyl-containing compounds. Increase in the absorption in the 800-1200 cm^{-1} range, especially in radiation oxidation, corresponds to the formation of hydroperoxide, ether and different cross-linked structures. The stabilizing effect of 0.1, 0.5 and 3% N,N'-di-α, β'-naphthyl-p-phenylenediformylamide depends on its concentration: in thermal oxidation 0.5% offered the best antioxidant action, in radiation oxidation 3% gave better stabilization. "The authors thank AN USSR academician A. I. Brodskiy for assistance and junior coworker Ye. A. Mel'nichuk for preparing the melts." Orig. art. has: 4 figures and 3 formulas.

ASSOCIATION: Institut fizicheskoy khimii im. L. V. Pisarzhevskogo AN USSR (Institute of Physical Chemistry, AN USSR)

SUBMITTED: 23Apr63 ENCL: 00

SUB CODE: OC, NP NO REF SOV: 009 OTHER: 002

Card 2/2

L 27334-66 EWT(m)/EWP(j)/T IJP(c) RM

ACC NR: AP6008967 SOURCE CODE: UR/0190/65/007/011/1877/1883

AUTHORS: Goykhman, A. Sh.; Nosov, M. P.; Tret'yakov, Yu. N.; Oleynik, V. G. 36 B

ORG: Scientific Research Institute of Synthetic Fibers, Kiev Division (Kiyevskiy filial nauchno-issledovatel'skogo instituta iskusstvennogo volokna)

TITLE: Stretching mechanism of caprone fibers (10th report in the series "Study of stretching process in synthetic yarns")

SOURCE: Vysokomolekulyarnyye soyedineniya, v. 7, no. 11, 1965, 1877-1883

TOPIC TAGS: synthetic fiber, caprone, x ray diffraction study

ABSTRACT: The relationship between the behavior and mechanical properties and between the crystallinity and crystallite orientation occurring during stretching of caprone fiber was investigated at various temperatures. The study involved an x-ray diffraction method described by A. Sh. Goykhman, M. P. Nosov, and Yu. P. Tret'yakov (Khimich. volokna, 1965, No. 6). It was established that the orientation of monoclinic crystallites, which is characterized by the average orientation angle τ, is practically completed at λ (elongation multiplying factor) = 3 to 3.2 (see Fig. 1). Crystallinity of the polymer increases with enhanced degree of

UDC: 678.01:53+678.675

Card 1/2

L 27334-66

ACC NR: AP6008965

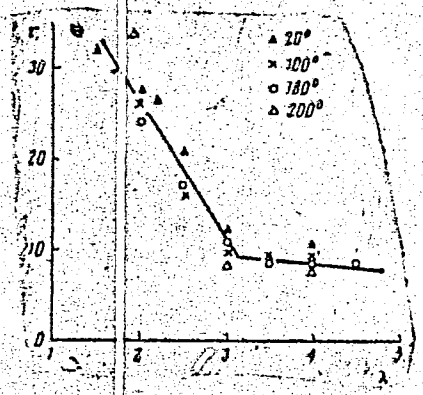

Fig. 1. Average orientation angle γ as a function of the stretching multiplying factor λ at various temperatures.

stretching. A definite connection was found between the magnitude of equilibrium axial swelling and fiber structure. Fibers with λ from 1.0 to 2.0 stretch while swelling. Fibers with λ = 2.0 to 2.5 do not change their linear dimensions to any pracical extent. When $\lambda > 2.5$, only shrinkage is observed. Orig. art. has: 6 figures.

SUB CODE: 07,11/ SUBM DATE: 01Dec64/ ORIG REF: 005/ OTH REF: 003

Card 2/2

S/262/62/000/012/006/03[illegible]
I007/I207

AUTHOR Oleynik, V I

TITLE The temperature effect of supercharging air on the thermal condition of a Д70 (D70) engine

PERIODICAL Referativnyy zhurnal, otedelny vypusk 42. Silovyye ustanovki, no 12, 1962 76 abstract 42 12.479. "Tr Khar'kovsk. in-ta inzh. zh.-d transp." no 43, 1961, 75-79

TEXT From a study of the effect of increasing the superch[illegible]rging-air temperature on the thermal condition of an engine permit the following conclusions to be drawn: The temperature of supercharging air has its maximum effect on the temperature of the exhaust valve and the piston crown. 2 The temperature of supercharging air has a negligible effect on the engine performance if the engine is operating with gas turbine [illegible]ss power

[Abstracter's note Complete translation.]

Card 1/1

OLEYNIK, V.I., inzh.

Possibility of using non-cooled pistons in the D70 engine. Trudy KHIIT no.50:66-77 '61. (MIRA 15:12)
(Diesel engines—Design and construction)

S/273/63/000/001/006/013
A052/A126

AUTHORS: Shokotov, N.K., Oleynik, V.I.

TITLE: Supercharge pressure selection as a reserve to raise the combined engine economy

PERIODICAL: Referativnyy zhurnal, otdel'nyy vypusk, 39. Dvigateli vnutrennego sgoraniya, no. 1, 1963, 17, abstract 1.39.103 (Tr. Khar'kovsk. in-ta inzh. zh.-d. transp., no. 50, 1961, 88 - 98)

TEXT: The problem of the effect of the excess air coefficient α on the economy of a turbocharged diesel is considered for the case when α changes as a result of the charge pressure. The investigations have established that the increase in the economy of a combined unit with the increase of α results from an improved indicated process of the piston engine

[Abstracter's note: Complete translation]

Card 1/1

DRABKIN, Ya.I., kand.tekhn.nauk; SHOKOTOV, N.K., inzh.; OLEYNIK, V.I., inzh.

Effect of fuel supply advance angle on the operating process of a composite system. Teplovoz.i sud.dvig. no.3:263-268 '62. (MIRA 16:2)

(Diesel engines)

ZASLAVSKIY, G.N., inzh.; SIMSON, A.E., inzh.; OLEYNIK, V.I., inzh.

Methods for improving the idling of the D50 diesel engine. Elek. i teplovoz. tiaga 7 no.1[illegible]-42 Ja '63. (MIRA 16:2)
(Diesel engines)

CLEYNIK, V. I.

Seed Industry

Transition of seed farms to continuous planting of high-quality perennial grasses and legumes, sel. i sem., 19, No. 7, 1952.

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