"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001031220015-6

SOV/20-120-1-2/63

AUTHOR: Vishik, M.I. and ~~Lyusternik, L.A.~~, Corresponding Member of the Academy of Sciences, USSR

TITLE: The Asymptotic Behavior of the Solutions of Some Boundary Value Problems With Oscillating Boundary Conditions (Asimptotika resheniy nekotorykh krayevykh zadach s ostsilliruyushchimi granichnymi usloviyami)

PERIODICAL: Doklady Akademii nauk SSSR, 1958, Vol 120, Nr 1, pp 13-16 (USSR)

ABSTRACT: The authors consider the parabolic equation

$$\frac{\partial u}{\partial t} + L_{2k}\, u = 0 ,$$

where L_{2k} is an elliptic operator, the hyperbolic equation

$$\frac{\partial^2 u}{\partial t^2} - L_2\, u = 0$$

and similar ones for boundary conditions of the type

$$\left.\frac{\partial^s u}{\partial n^s}\right|_{\Gamma_1} = A_s(\varphi, t)\, e^{i(\omega t + \gamma\varphi)} \qquad s=0,1,\ldots, k-1.$$

The asymptotic behavior of the solutions is investigated with

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The Asymptotic Behavior of the Solutions of Some Boundary Value Problems With Oscillating Boundary Conditions /20-120-1-2/63

the same methods as in [Ref 1,2]. The consideration is carried out in the coordinates φ, ρ, where φ is the running coordinate on the boundary Γ and ρ is the distance from the boundary. It is stated that a strong oscillation of the boundary conditions in t or φ leads to a boundary layer effect. There are 3 Soviet references.

SUBMITTED: February 10, 1958

1. Hyperbolic functions 2. Topology

Card 2/2

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"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001031220015-6

SOV/20-121-5-2/50

AUTHOR: Vishik, M. I., Lyusternik, L. A., Corresponding Member of the Academy of Sciences of the USSR

TITLE: On the Asymptotic Behavior of the Solutions of Boundary Value Problems for Quasilinear Differential Equations (Ob asimptotike resheniya krayevykh zadach dlya kvazilineynykh differentsial'nykh uravneniy)

PERIODICAL: Doklady Akademii nauk SSSR, 1958, Vol. 121, Nr 5, pp 778-781 (USSR)

ABSTRACT: The methods combined with boundary layer considerations used by the authors in earlier papers [Ref. 1, 2] for the establishment of asymptotic developments of solutions of linear boundary value problems now are applied to simplest nonlinear cases. Beside of

(1) $L_\varepsilon y \equiv \varepsilon y'' + \varphi(x, y) y' + \psi(x, y) = 0 \quad y(0) = A, \quad y(1) = B$

the authors consider

(2) $L_0 w \equiv \varphi(x, w) w' + \psi(x, w) = 0$

It is shown that for $\varphi(x, y) \geq \gamma > 0$ and a sufficient smoothness of φ and ψ the solution of (1) has the following development in a certain subdomain M of the strip $0 \leq x \leq 1$

$\tilde{y}_\varepsilon(x) = w_0(x) + v_0(x) + \tilde{R}_0(x) \qquad \tilde{R}_0(x) = O(\varepsilon^{-1} \ln \varepsilon^{-1})$

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On the Asymptotic Behavior of the Solutions of Boundary Value Problems for Quasilinear Differential Equations SOV/20-121-5-2[illegible]

$$y_\varepsilon(x) = \left[w_0(x) + \sum_{s=1}^{n} \varepsilon^s w_s(x)\right] + \left[v_0(x) + \sum_{s=1}^{n-1} \varepsilon^s v_s\right] + R_n(x)$$

$$R_n(x) = O(\varepsilon^{n-1})$$

Here $v_0(x)$ is the principal part of the difference $v(x) = \tilde{y}_\varepsilon(x) - w(x)$ and satisfies the equation

$$\varepsilon v_0'' + \varphi(v_0 + a) v_0' = 0 \quad (v_0(0) = A - a, \quad a = w(0), \quad \varphi(y) = \varphi(0, y))$$

The w_k are determined successively by the solution of certain linear equations. The v_k are of the boundary layer type ($v|_{\infty} = 0$) and are obtained successively too.

If (1) has two solutions $\tilde{y}(x)$ and $\tilde{\tilde{y}}(x)$ then

$$\tilde{y}(x) - \tilde{\tilde{y}}(x) = O(\exp(-\gamma \varepsilon^{-1})),$$

where k may be an arbitrary fixed number between 0 and 1.

Sufficient for the uniqueness in M is: $\varphi > \gamma > 0$, $\frac{\partial \varphi}{\partial y} > 0$, $(A-a)\varphi_y' \geq 0$

There are 4 references 2 of which are Soviet 1 German, and 1 American.

SUBMITTED: May 10, 1958

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"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001031220015-6

Lyusternik, L.A.

16(1) PHASE I BOOK EXPLOITATION SOV/2508

Matematicheskoye prosveshcheniye; matematika, yeye prepodavaniye, prilozheniya i istoriya, vyp. 4 (Mathematical Education; Mathematics, Its Teaching, Application and History, Nr. 4) Moscow, Gostekhizdat, 1959. 15,000 copies printed.

Ed.: I.N. Bronshteyn; Editorial Board of Series: I.N. Bronshteyn, A.I. Markushevich, I.M. Yaglom; Tech. Ed.: S.N. Akhlamov.

PURPOSE: This book is intended for persons without an extensive mathematical education who are interested in trends in contemporary mathematics. The book may be useful to high school mathematics teachers.

COVERAGE: The book consists of articles, reviews, and scientific and methodological reports, some of which are translations from other languages. The state of modern mathematics is covered, including applications, history, teaching of mathematics in schools, and mathematical developments in the USSR and abroad. One section deals with scientific and pedagogical life in the USSR and another contains reviews of certain mathematical publications. Some mathematical background is necessary to understand the book; certain articles require a knowledge of higher mathematics.

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"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001031220015-6

Lyusternik L.A.

16(0) PHASE I BOOK EXPLOITATION SOV/3177

Matematika v SSSR za sorok let, 1917-1957. tom 1: Obzornyye stat'i (Mathematics in the USSR for Forty Years, 1917-1957) Vol 1: Review Articles) Moscow, Fizmatgiz, 1959. 1002 p. 5,500 copies printed.

Eds: A. G. Kurosh, (Chief Ed.), V. I. Bityutskov, V. G. Boltyanskiy, Ye. B. Dynkin, G. Ye. Shilova, and A. P. Yushkevich; Ed. (Inside book): A. F. Lapko; Tech. Ed.: S. N. Akhlamov.

PURPOSE: This book is intended for mathematicians and historians of mathematics interested in Soviet contributions to the field.

COVERAGE: This book is Volume I of a major 2-volume work on the history of Soviet mathematics. Volume I surveys the chief contributions made by Soviet mathematicians during the period 1947-1957; Volume II will contain a bibliography of major works since 1917 and biographic sketches of some of the leading mathematicians. This work follows the tradition set by two earlier works: Matematika v SSSR za pyatnadtsat' let (Mathematics in the USSR for 15 Years) and Matematika v SSSR za tridtsat' let (Mathematics in the USSR for 30 Years). The book is divided into the major divisions of the field, i.e., algebra, topology, theory of probabilities, functional analysis, etc., and contributions and outstanding problems in each discussed. A listing of some 1400 Soviet mathematicians is included with references to their contributions in the field.

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LYUSTERNIK, L. [illegible]

[illegible] values of functions of one variable (co[illegible]).
[illegible]
(Functional analysis)

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"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001031220015-6

16(1),16(2) SOV/42-14-1-27/27

AUTHORS: Leonidov, K.S., and Rakova, E.S.

TITLE: New Publications on Applied Analysis and Numerical Mathematics (Novyye izdaniya po prikladnomu analizu i vychislitel'noy matematike)

PERIODICAL: Uspekhi matematicheskikh nauk, 1959, Vol 14, Nr 1, pp 261-265 (USSR)

ABSTRACT: It is stated that in the USSR there exists no periodical on numerical mathematics and similar domains. The papers of these domains chiefly appear in the serie. "Publications on Applied Analysis and Numerical Mathematics" (BPAVM) and in single collected volumes. The series BPAVM began in 1955 and until now it contained the following monographies: 1. G.S.Salekhov "Calculation of Series"; 2. A.N.Khovanskiy "Application of Continued Fractions in the Approximate Analysis"; 3. V.S.Ryaben'kiy, A.F.Filippov "Stability of Difference Equations"; 4. G.S.Khovanskiy "Nomograms"; 5. S.M.Nikol'skiy "Quadrature Formulas"; 6. M.A.Kartsev "Arithmetic Devices of Electronic Digit Apparats"; 7. Yu.V. Vorob'yev "Momentum Method in Applied Mathematics"; 8. Ye.A. Zhogolev, G.S.Roslyakov, N.P.Trifonov, M.R.Shura-Bura "System of Standard-Subprograms".

There appeared the following collected volumes: "Numerical Mathematics and Computing Technics" (VMVT) since 1953, "Numerical Mathematics" (VM) since 1957, and "Computing Technics" (VT) since 1958. Until now two volumes of VMVT appeared with contributions of V.A.Ditkin, L.A.Lyusternik, A.I.Ivanova, A.A.Abramov, M.R. Shura-Bura, V.I.Shestakov, A.I.Vzorova, G.S.Khovanskiy, L.V. Bochek, Ye.N.Dekanosidze, L.N.Karamzina, V.K.Saul'yev, I.M. Stesin, M.A.Tomson, L.I.Gutenmakher, G.K.Kuz'minok, L.S.Klabukova. The published three volumes of VM contained contributions of L.A.Lyusternik, Yu.V.Vorob'yev, Ye.A.Volkov, V.K.Saul'yev, I.M.Stesin, A.I.Vzorova, Ya.I.Alikhashkin, G.S.Khovanskiy, S.P. Kapitsa, M.R.Shura-Bura, P.I.Chushkin, O.N.Katskova, Yu.D. Shmyglevskiy, V.S.Linskiy, M.G.Rappoport, B.M.Drozdov, A.G.Gesse, V.S.Vladimirov, L.S.Klabukova, A.I.Vzorova, I.M.Sobol', V.K. Kabulov, O.N.Belotserkovskiy. The first volume of VT contains contributions of O.K.Shcherbakov, F.V.Mayorov, P.P.Golovistikov, Ye.A.Volkov, L.N.Korolev, N.Ya. Matyukhin, O.V.Rosnitskiy, Yu.N. Glukhov, Ye.I.Mamonov.

Besides in 1958 Yu.Ya.Bazilevskiy edited the collected volume "Questions of the Theory of Mathematical Machines" ("Voprosy teorii matematicheskikh mashin") with contributions of Yu.Ya. Bazilevskiy, I.Ya.Akushskiy, Yu.A.Shreyder, E.A.Glusberg, I.M. Vitenberg, B.I.Ramayev, V.S.Linskiy, L.A.Kozharskiy.

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16(1) SOV/22-14-2-19/19

AUTHORS: Lapko, A.F., and Lyusternik, L.A.

TITLE: Correction

PERIODICAL: Uspekhi matematicheskikh nauk, 1959, Vol 14, Nr 2, p 262 (USSR)

ABSTRACT: In the paper "Mathematical Congresses and Conferences in the USSR" in Uspekhi matematicheskikh nauk, 1958, Vol 13, Nr 5 the lecture of L.A.Aksent'yev is not mentioned.

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16(1) SOV/42-14-3-18/22

AUTHORS: Lyusternik, L.A., Vishik, M.I.

TITLE: Sergey L'vovich Sobolev (On the Occasion of his 50-th Birthday)

PERIODICAL: Uspekhi matematicheskikh nauk, 1959, Vol 14, Nr 3, pp 203 - 214 (USSR)

ABSTRACT: The paper contains a short biography and a survey of the scientific merits of S.L. Sobolev. He was born in 1908 in Leningrad, matriculation there in 1925, his teachers were Professor V.I. Smirnov and N.M. Gyunter; in 1933 he was elected Corresponding Member of the Academy of Scienes of the USSR. Since 1935 S.L. Sobolev is Professor of the Moscow State University. In 1939 he became Member of the Academy of Sciences. Since 1940 he is member of the Communist Party. A.O. Gel'fond, I.A. Lappo-Danilevskiy and R.A. Aleksandryan are mentioned. A list of the publications from 1929 to 1957 with 86 titles and a photograph of S.L. Sobolev are given.

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"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001031220015-6

16(1) SOV/20-125-2-1/44

AUTHORS: Vishik, M.I., and Lyusternik, L.A., Corresponding Member of the AS USSR

TITLE: Asymptotic Behavior of the Solutions of Differential Equations With Large and Quickly Variable Coefficients (Asimptoticheskoye povedeniye resheniy differentsial'nykh uravneniy s bol'shimi i bystro izmenyayushchimisya koeffitsiyentami)

PERIODICAL: Doklady Akademii nauk SSSR, 1959, Vol 125, Nr 2, pp 247-250 (USSR)

ABSTRACT: Several problems of mathematical physics lead to boundary value problems for equations with large and quickly variable coefficients. Here the solutions mostly change quicker in the direction cross to the boundary than in the direction parallel to the boundary. Therefore, for the approximate investigation, the appearing operator can be split up into two parts, the principal part of which corresponds to the change perpendicular to the boundary and is essentially simpler than the original operator. This method was applied by the authors already for several times [Ref 2,3,4,5] for equations with small coefficients for highest derivatives, problems with oscillating boundary values.

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Asymptotic Behavior of the Solutions of Differential Equations With Large and Quickly Variable Coefficients SOV/20-125-2-1/64

etc. In the present paper the authors show by the example of equations of second order how to apply this method for large and quickly variable coefficients of equations. There are 6 Soviet references.

SUBMITTED: January 10, 1959

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"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001031220015-6

SAUL'YEV, Vladislav Kliment'yevich; LYUSTERNIK, L.A., red.; BIRYUK, G.I., red.; KRYUCHKOVA, V.N., tekhn.red.

[Integration of parabolic equations by the lattice method] Integrirovanie uravnenii parabolicheskogo tipa metodom setok. Pod red. L.A.Liusternika. Moskva, Gos.izd-vo fiziko-matem. lit-ry, 1960. 324 p. (MIRA 13:7)
(Equations)

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"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001031220015-6

VOLYNSKIY, Boris Abramovich; BUKHMAN, Vadim Yevgen'yevich; LYUSTERNIK, L.A., red.; LAPKO, A.F., red.; TUMARKINA, N.A., tekhn.red.

[Models for solving boundary problems] Modeli dlia resheniia kraevykh zadach. Pod red. L.A.Liusternika. Moskva, Gos.izd-vo fiziko-matem.lit-ry, 1960. 451 p. (MIRA 13:7)

1. Chlen-korrespondent AN SSSR (for Lyusternik).
(Boundary value problems)
(Electromechanical analogies)

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"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001031220015-6

S/030/60/000/010/002/018
B021/B058

AUTHORS: Lyusternik, L. A., Corresponding Member AS USSR,
Sobolev, S. L., Academician

TITLE: Problems of Computer Mathematics

PERIODICAL: Vestnik Akademii nauk SSSR, 1960, No. 10, pp. 23-31

TEXT: The authors endeavor to establish only some characteristic trends in the development of computer mathematics. The ever increasing fields of application of mathematics and of problems to be solved led to a great increase of the volume and variety of computations. Special computer installations were necessary therefore. The development of new means of computation techniques was of great influence on computer mathematics, requiring the training of operating personnel. Courses for laboratory assistants, computer operators and programmers are held in a number of organizations in Moscow and Novosibirsk. The first schools with a computer-mathematics trend have been established in Moscow. Statistical data on the Vychislitel'nyy tsentr Moskovskogo universiteta (Computer Center of Moscow University) are given next. The Center had a "Strela" electronic

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Problems of Computer Mathematics

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B021/B058

computer and an "Setun'" machine has now been added. Computer centers were established at the Gosplan SSSR (State Planning Commission USSR) and the Gosplan RSFSR (State Planning Commission RSFSR) and mathematics groups at the sovnarkhozes. A report on functional analysis methods is given next, Chebyshev and L. V. Kantorovich being mentioned. L. V. Kantorovich and his pupils G. P. Akilov and I. P. Mysovskikh are mentioned, as well as the papers by S. M. Lozinskiy, A. F. Filippov, and Chaplygin. Papers by A. G. Vitushkin, N. S. Bakhvalov, A. N. Kolmogorov, and N. M. Korobov on algorithms are mentioned. A number of collectives under the direction of A. A. Lyapunov, M. R. Shura-Bura, and N. A. Krynitskiy are working in the field of computer mathematics and mathematical logic. Arithmetical-logical models are used at present which are realized on mathematical machines. It is underlined that G. M. Adel'son-Vel'skiy discovered observation errors when simulating some decomposition processes of mesons, which are studied at the Institut teoreticheskoy i eksperimental'noy fiziki (Institute of Theoretical and Experimental Physics), by means of the M-2 (M-2) computer. The papers by V. S. Vladimirov are mentioned in connection with the probability methods of the type "Monte Carlo". Finally, it is stated that the development of modern computer mathematics is closely

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connected with various fields of mathematical sciences. By utilizing their results, computer mathematics will influence the future progress of mathematics as a whole.

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SOV/[illegible]

AUTHORS: Lyusternik, L. A., Sa[illegible], V. K.

TITLE: Concerning the Necessity of Publishing an A[illegible] Journal on Calculus

PERIODICAL: Uspekhi matematicheskikh nauk, 1960, Vol. 15, No. 1, pp 257-258 (USSR)

ABSTRACT: Some 150 to 200 papers in applied mathematics [illegible] annually in the USSR become scattered in numerous periodicals because no special journal exists. Papers on computation techniques are scattered similarly. Occasionally-issued symposiums cannot substitute for a periodical. Meanwhile, the situation in foreign countries is favorable. There are 2 such special journals in English and 3 in German. This method of publishing scientific papers on calculus in USSR journals is considered unsatisfactory.

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30210

S/042/60/015/03/01/002

16.15 16.3400

AUTHORS: Vishik, M.I., and Lyusternik, L.A.

TITLE: The Solution of Some Problems on Perturbations in the Case of Matrices and of Selfadjoined and non-Selfadjoined Differential Equations.

PERIODICAL: Uspekhi matematicheskikh nauk, 1960, Vol.15, No.3, pp.3-80

TEXT: The present paper consists of two chapters. The most essential results are already announced in (Ref.12,13). Chapter I: Perturbations of symmetric matrices. The authors consider linear algebraic problems, where they try to give the proofs so that a transfer to analytic problems considered later is possible. § 1. Introduction, § 2. Perturbation of the solution of the inhomogeneous linear system of equations $A_\varepsilon \bar{y}_\varepsilon = h$ is given. If det $A_0 \neq 0$, the problem is elementary. In the other case $\bar{y}_\varepsilon$ as a function of ε has a pole of n-th order for $\varepsilon = 0$, where n is the maximal length of the Jordan chains of the adjoined vectors of the problem. § 3. Perturbations of the eigenvalues [illegible] vectors. The asymptotic behavior of the eigenvalues λ_ε and the [illegible] vectors $\bar{y}_\varepsilon$ of the matrix $A_\varepsilon = A_0 + \varepsilon A_1$ is considered, if to the eigenvalue λ_0

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80210

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The Solution of Some Problems on Perturbations in the Case of Matrices and of Selfadjoined and non-Selfadjoined Differential Equations. I

of the limit matrix A_0 there corresponds a Jordan chain; λ_ε and v_ε are developed with respect to powers of $\varepsilon^{1/2}$, n - length of the Jordan chains of A_0; the general case is treated in the appendix I, Chapter II. Perturbations of selfadjoined and non-selfadjoined boundary value problems for the equation $L_\varepsilon u_\varepsilon = h$. § 4. If the order of the equation is not elevated by the perturbations, the results of § 2 can be transferred to this problem. § 5. (partially contained already in (Ref. 1)). If the order of L_ε is greater than the order of L_0 and if $L_0 u = h$ is solvable for all h, then the asymptotic behavior of the solution is obtained with the aid of two iteration processes for a regular degeneration that leads to functions of the type of boundary layers. § 6. If there exists an eigenfunction u_0, $L_0 u_0 = 0$, then the boundary layer methods of § 5 and the methods of § 2 are combined. In § 7 the perturbation of eigenvectors and eigenfunctions is considered in the general non-adjoined case; correspondingly the methods of § 2 are replaced by the

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The solution of Some Problems on perturbations in the Case of Matrices and of Selfadjoined and non-Selfadjoined Differential Equations.I S/042/60/015/03/01/00

methods of § 3. The case where the order of L_ε is not greater than the order of L_0 is solved completely.

The author mentions M.A.Leontovich, A.L.Gol'denveyzer, Yu.L.Daletskiy, Slobodetskiy, A.B.Shabat and N.M.Leontovich. There are 25 references: 22 Soviet and 3 American.

SUBMITTED: December 1, 1959

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S/042/60/015/04/01/007
C111/C222

AUTHORS: Vishik, M.I., and Lyusternik, L.A.

16

TITLE: Asymptotic Behavior of the Solutions of Linear Differential Equations With Large or Quickly Variable Coefficients and Boundary Conditions

PERIODICAL: Uspekhi matematicheskikh nauk, 1960, Vol. 15, No. 4, pp. 27 - 95

TEXT: The authors consider boundary value problems depending on the parameter ϵ, where for $\epsilon \to 0$ the coefficients of the equations or of the boundary conditions tend to ∞. In chapter I the authors investigate equations defined in the whole space, where the coefficients are finite in a subdomain Q, while in the complement $\overline{Q}$ for $\epsilon \to 0$ they increase infinitely. In chapter II the authors consider problems in which the coefficients of the equation increase unboundedly in an infinitely thin layer T_ϵ around a "singular manifold Γ. In chapter III the authors investigate boundary value problems in a domain Q on the boundary Γ of which there is an oscillation (problems of the type of the Skin - effect). In all these problems the solution $u = u(x, \epsilon)$ distinguishes by the fact that it has a singularity for $\epsilon \to 0$. Similar

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"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001031220015-6

Asymptotic Behavior of the Solutions of Linear Differential Equations With Large or Quickly Variable Coefficients and Boundary Conditions

S/042/60/015/04/01/007
C111/C222

questions were treated by the authors in (Ref. 2) and now the methods developed in (Ref. 2) are applied again. Besides the authors use arrangements of M.A. Leontovich (Ref. 4) and O.A. Oleynik (Ref. 8,9) The principal results of the paper are announced in (Ref. 3). The authors mention A.L. Gol'denveyzer.
There are 23 references : 21 Soviet and 2 American.

SUBMITTED: December 1, 1959

Card 2/2

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"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001031220015-6

81386

S/020/60/132/06/05/068
C111/C222

A 3500

AUTHOR: Vishik, M.I., Corresponding Member of the AS USSR, and Lyusternik, L.A.

TITLE: Initial Jump for Nonlinear Differential Equations Containing a Small Parameter

PERIODICAL: Doklady Akademii nauk SSSR, 1960, Vol. 132, No. 6, pp. 1242-1245

TEXT: The authors consider the Cauchy problem

(1) $L_\varepsilon y = \varepsilon y'' + \varphi(x, y, y') = 0$, $y|_{x=0} = y_0$, $y'|_{x=0} = \frac{C}{\varepsilon B}$ $(B > 0)$.

They seek the geometrical limit value for $\varepsilon \to 0$ of the integral curves y_ε which may contain the straight line $[y_0, y + B]$ of the y-axis. The phenomenon is called an initial jump and is considered for a quasilinear equation in (Ref. 1). With the aid of an asymptotic development of the solution it is stated: If $\varphi(x, y, y')$ for $y' \to \infty$ increases as $|y'|^l$, $0 < l \leq 2$, then there is an initial jump for $0 < \alpha < 1$ for $B = (1-\alpha)^{-1}$,

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Initial Jump for Nonlinear Differential Equations Containing a Small Parameter

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where $l = 1 + \alpha$; the length B can be computed by :

$$(3) \qquad C^{1-\alpha} = (1-\alpha)\int_{y_0}^{y_0+B} \psi_{00}(0,y)\,dy \quad ,$$

where ψ_{00} is taken from the development of , e.g. $\psi(x,y,y') = y'^{1+\alpha}\left[\psi_{00}(x,y) + O(1)y'^{-r}\right]$. If $\alpha = 1$, i.e. $\psi(\ ,y,y') = O(y'^2)$, then the initial jump appears if $y'|_{x=0} = e^{C/\varepsilon}$.

The authors mention S.N. Bernshteyn. There are 5 Soviet references.

SUBMITTED: March 31, 1960

Card 2/2

APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001031220015-6"

"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001031220015-6

LYUSTERNIK, Lazar' Aronovich

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ix, [illegible] diagrs.

Translated from the original Russian: Elementy funktsional'nogo analiza, Moscow, 1951

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[Mathematical analysis; differentiation and integration] Matematicheskii analiz; differentsirovanie i integrirovanie. [By] I.G.Aramanovich i dr. Moskva, Gos. izd-vo fiziko-matem. lit-ry, 1961. 350 p. (MIRA 15:2)

(Mathematical analysis)
(Calculus, Differential) (Calculus, Integral)

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[Mathematical analysis; functions, limits, series, continued fractions] Matematicheskii analiz; funktsii, predely, riady, tsepnye drobi. Moskva, Gos. izd-vo fiziko-matem. lit-ry, 1961. 439 p. (MIRA 14:8)

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DITKIN, Vitaliy Arsen'yevich; PRUDNIKOV, Anatoliy Platonovich; LYUSTERNIK, L.A., red.; YANPOL'SKIY, A.R., red.; LAPKO, A.F., red.; BRUDNO, K.F., tekhn. red.

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Abram Iezekiilovich Plesner; on his 60th birthday. Usp. mat. nauk 16 no.1:213-218 Ja-F '61. (MIRA 14:6)
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(Mathematical statistics)

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[Mathematical analysis; calculation of elementary functions] Matematicheskii analiz; vychislenie elementarnykh funktsii. Moskva, Fizmatgiz, 1963. 247 p. (MIRA 16:6)
(Functions)

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KRINITSKIY, N.A.; MIRONOV, G.A.; FROLOV, G.D.; LYUSTERNIK, L.A., red.; YANPOL'SKIY, A.R., red.; SHUR-BUR, M.R., red.; BEZBORODOV, Yu.M., red.; MURASHOVA, N.Ya., tekhn. red.

[Programming] Programmirovanie. Moskva, Fizmatgiz, 1963. 383 p. (MIRA 16:8)
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[Elements of the theory of functions; functions of real variables, approximation of functions; almost periodic functions] Elementy teorii funktsii; funktsii deistvitel'nogo peremennogo, priblizhenie funktsii, pochti-periodicheskie funktsii. Moskva, Fizmatgiz, 1963. 244 p. (MIRA 16:12)

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LYUSTERNIK, L.A., red.; TIKHONOVSKIY, A.N., red.
MIKHAYLOVA, T.N., red.

[Linear equations in mathematical physics] Lineinye uravneniia matematicheskoi fiziki. [By] V.M.Sabich i dr. Moskva, Izd-vo "Nauka," 1964. 368 p. (MIRA 17:7)

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[Analog methods and techniques for solving boundary value problems; transactions of the All-Union Conference, Moscow, October 1962] Analogovye metody i sredstva resheniia kraevykh zadach; trudy Vsesoiuznogo soveshchaniia, Moskva, oktiabr' 1962 g. Kiev, Naukova dumka. 1964. 354 p. (MIRA 17:12)

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MIKHINA, A.P.; PROSKURYAKOV, I.V.; MASHEVSKIY, I.K., red.; LYUSTERNIK, L.A., red.; YANPOL'SKIY, A.R., red.; [illegible], V.K., red.

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L 36499-66 EWT(d)/T IJP(c)

ACC NR: AP6027050 SOURCE CODE: UR/0042/66/021/002/0225/0226

AUTHOR: Lyusternik, L. A.; Mayzlin, I. Ye.

ORG: none

TITLE: Algorithm for digital computer solution to the problem of the compilation of specifications

SOURCE: Uspekhi matematicheskikh nauk, v. 21, no. 2, 1966, 225-226

TOPIC TAGS: digital computer, algorithm, mathematic matrix

ABSTRACT: Let G be an oriented multigraph without boundaries having n vertices x_1, x_2, ... x_n, where k_j^i is the number of arcs extending from the vertex $x_{e_j^i}$ ($j = 1, \ldots p_i$) to the vertex x_i ($i = 1, \ldots n$). The authors briefly describe an algorithm for the determination of the elements z_{il} of the matrix z, where z_{il} denotes the number of all possible paths leading from x_l to x_i. This is the methematical formulation of the specifications during planning procedures which try to take into account the complex relationships between the various products. In practice one encounters complex products n, labeled $x_1, x_2, \ldots x_n$. The products x_i ($i = 1, \ldots n$) contains k_1^i subproducts $x_{e_1^i}$, $k_2^i - x_{e_2^i}$, etc, and $k_{p_i}^i - x_{e_{p_i}}^i$ subproducts ($1 \leq e_j^i \leq n$). For $1 \leq \alpha, \beta \leq n$

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ACC NR: AP6027050

one should determine y_{α}^{β} representing the number of x_{α} products contained in a single product x_{β}. This quantity y_{α}^{β} is equal to $z_{\alpha\beta}$ defined above as the matrix element of z. [JPRS: 36,364]

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Card 2/2

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LYUSTERNIK, R. Ye.

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SO: U-4934, 29 Oct 53, (Letopis 'Zhurnal 'nykh Statey, No. 16, 1949).

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"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001031220015-6

SOV/120-59-4-30/50

AUTHOR: Lyusternik, V. Ye.

TITLE: ~~An Automatic~~ Calorimeter for Thermal Analysis Studies on Heat-Resisting Steels

PERIODICAL: Pribory i tekhnika eksperimenta, 1959, Nr 4, pp 127-129 (USSR)

ABSTRACT: The instrument (Fig 3) is meant for use in measuring the true specific heat, the enthalpy, and the heats of allotropic transformations over the range 50-1000°C. The calorimeter is heated continuously; the system is made adiabatic by using a thermocouple with a mirror galvanometer to operate a photo-relay (Fig 1). The calorimeter is evacuated, but at high temperatures the temperature of the outer jacket deviates from the temperature of the inner one by too large an amount, so the double jacket system shown in Fig 3 is used; here the middle jacket is light and follows the temperature of the calorimeter very accurately. (Fig 2 shows the response curve of the simple relay of Fig 1 as current vs. galvanometer deflection). Fig 4 shows the correction to be applied to the heating rate on account of exchange with the outside

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An Automatic Calorimeter for Thermal Analysis Studies on Heat-Resisting Steels

world. The table gives c_p in kcal/dg°C for two heating-resisting steels, for Cu and for an ordinary steel (Y-8). The paper contains 4 figures, 1 table and 6 references, 3 of which are Soviet and 3 English.

ASSOCIATION: Vsesoyuznyy teplotekhnicheskiy nauchno-issledovatel'skiy institut (All-Union Heat Engineering Research Institute)

SUBMITTED: May 16, 1958.

Card 2/2

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"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001031220015-6

NEYMARK, B.Ye., kand.tekhn.nauk; LYUSTERNIK, V.Ye., inzh.

Effect of tempering on thermal diffusivity of carbon steel. (MIRA 13:8)
Teploenergetika 7 no.5:16-18 My '60.

1. Vsesoyuznyy teplotekhnicheskiy institut.
(Steel--Thermal properties)
(Tempering)

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LYUSTERNIK, V. Ye., Cand. Tech. Sci. (diss) "Investigation of Heat Volume and Thermal Effects of Transformation of Low-alloy and Heat-resistant Steels to 1100° C. by Method of Continuous Heating in Adiabatic Calorometer," Moscow, 1961, 21 pp. (Moscow Power Engr. Inst.) 150 copies (KL Supp 12-61, 270).

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21780

S/170/61/004/004/012/014
B125/B203

11.3950

AUTHORS: Kogan, V. A., Lyusternik, V. Ye.

TITLE: Study of specific heat and heat of fusion in alloys on the basis of lead

PERIODICAL: Inzhenerno-fizicheskiy zhurnal, v. 4, no. 4, 1961, 105-108

TEXT: The authors determined the true specific heats and heats of fusion of the alloys mentioned in Table 1 between 20 and 500°C in an adiabatic calorimeter by the method of continuous heating of the alloy studied. The study of the specific thermal capacity of the solid and liquid phases of alloys of the system lead - antimony - tin is theoretically and practically very interesting since these alloys are used more and more in machine building, in the polygraphic industry, and as thermophores for heat exchangers. Table 1 gives the chemical compositions of the alloys investigated. The rate of heating in these processes was 3 - 3.5 deg/min. In all experiments, the specific heat, c, slightly decreased in the range of 20-150°C, and then increased rapidly up to the melting point (a sharp peak of the specific heat occurs in melting). In the liquid alloy, the

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21780

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B125/B203

Study of specific heat...

specific heat decreased rapidly from the melting point. The complicated character of temperature dependences of the specific heat near the melting point, found for all alloys and particularly for alloy 1 (Fig. 1), was due to the existence of several components in the alloy. The additive law of specific heats (Neumann-Kopp's rule) satisfied quite well the solid and liquid states of the alloy, but for the liquid phase this law agreed with the experiment only at a considerable distance from the melting region, which was particularly distinct in alloy no. 1. The increase in temperature is much delayed when the melting begins (in the passage through the solidus). For calculating the heat of fusion of the alloy q_{fus} (Table 2), the energy Q (kcal/min) supplied to the specimen is multiplied with the duration $\Delta\tau_{fus}$ (in minutes) determined from the melting thermogram. The fraction of heat used for heating the pot and the calorimeter (having the specific heat A (kcal/deg)) must be taken into account. Thus, $q = (Q\Delta\tau_{fus} - A\Delta t_{fus})/G$, where Δt_{fus} denotes the temperature range $t_{liq} - t_{sol}$, and G the weight of the alloy in g. The determination of the heat amount required for heating the liquid alloy by ~50°C above the

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B125/B203

Study of specific heat...

melting point is interesting for practical purposes. This amount of heat is determined like q_{fus} from the melting thermogram. The authors then calculated the heat content i and the mean specific heat from 20 to $t^{o}C$ on the basis of data of true thermal capacity. $i = \int_{20}^{t} c\,dt$ (2) holds for the alloy in kcal/kg. This integral is determined by graphic integration of the curves in Fig. 1. The mean specific heat (Tables 2,3) is calculated from the formula $c_m = i/(t - 20)$ (3), i being determined from (2). The value of i for the temperature t can be determined from (3); c_m is taken from Table 3 for the temperature t. The authors thank A. A. Semionov for valuable advice. There are 2 figures, 3 tables, and 2 Soviet-bloc references.

ASSOCIATION: Institut polygraficheskoy promyshlennosti g.Moskva (Institute of Printing Trade, Moscow)

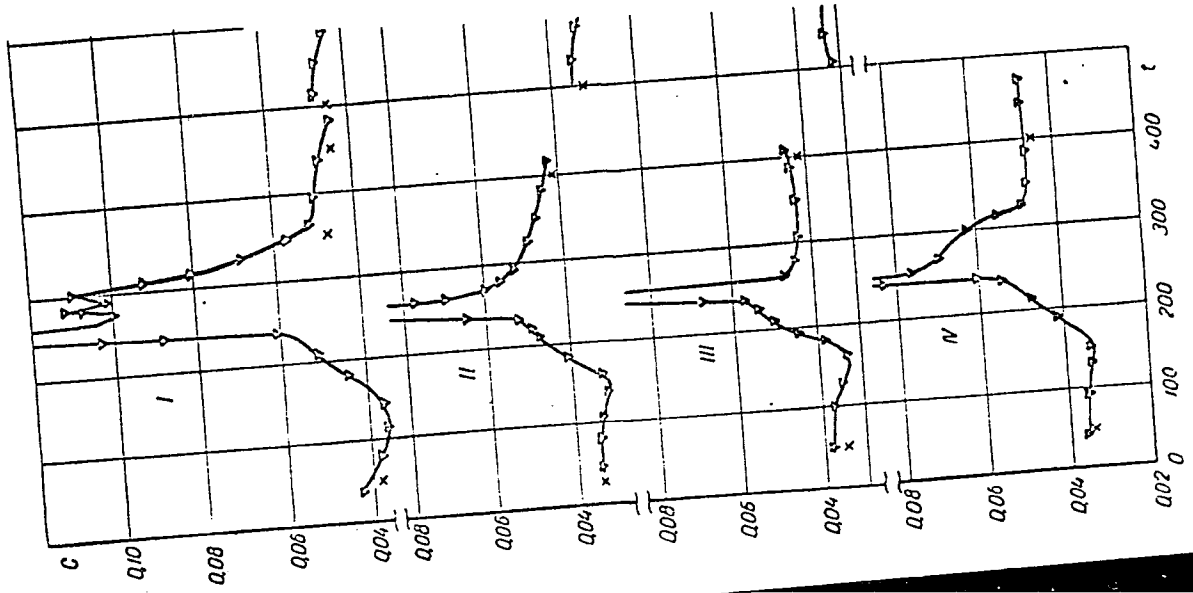
SUBMITTED: July 29, 1960

APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001031220015-6"

"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001031220015-6

21780
S/170/61/004/004/012/014
B125/B203

Study of specific heat...



Card 4/7

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B125/B203

Study of specific heat...

Legend to Fig. 1: True specific heat of alloys nos.1-6 (diagrams I-VI) and lead (VII).

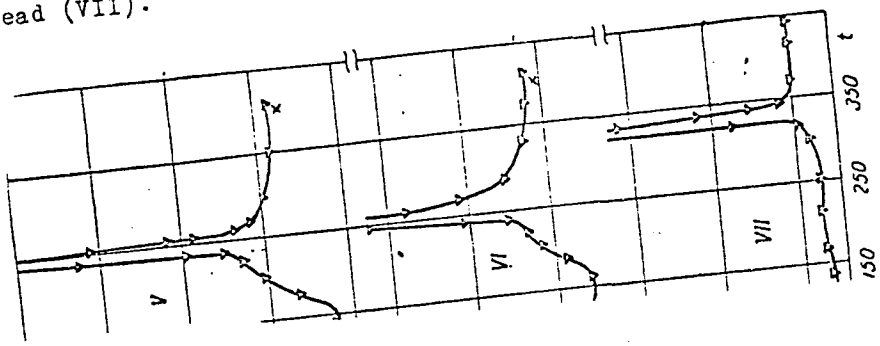

Table 1

Legend to Table 1: (1) Chemical composition of alloys, (2) chemical composition in %, (3) alloy, (4) lead, (5) antimony, (6) tin, (7) lead.

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B125/B203

Study of specific heat...

(TABLE 1)

1 Химический состав исследовавшихся сплавов

2 Химический состав, %	3 Сплав 1	2	3	4	5	6	4 Свинец
5 Сурьма	24,75	15,70	12,62	11,56	15,78	15	—
6 Олово	7,29	6,92	5,03	4,49	2,87	—	—
7 Свинец	—	—	—	—	—	—	100

Legend to Table 2: (1) Alloy, (2) characteristic values, (3) lead, (4) q_{fus} in kcal/kg, (5) $q_{overheat}$ in kcal/kg.

(TABLE 2) Таблица 2

2 Характеристики	1 Сплав 1	2	3	4	5	6	3 Свинец
4 $q_{пл.}$ ккал/кг	10,59	10,50	10,22	9,42	9,33	8,65	5,63
5 $q_{пер.}$ ккал/кг	2,60	2,95	2,60	2,60	2,20	2,55	2,00

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Study of specific heat...

Таблица 3 (TABLE 3)

Средняя теплоемкость сплавов c_m (ккал/кг·°С)

t, °C	1	2	3	4	5	6	1 Свинец
20	0,044	0,036	0,038	0,038	0,034	0,035	0,0305
20+ 50	0,040	0,036	0,037	0,038	0,034	0,034	0,0310
20+100	0,039	0,036	0,0368	0,038	0,0339	0,034	0,0316
20+150	0,0377	0,0355	0,0366	0,0374	0,0331	0,0330	0,0320
20+200	0,0389	0,0366	0,0378	0,0372	0,0346	0,0333	0,0325
20+240	0,0427	0,0390	0,0412	0,0395	0,0383	0,0363	0,0329
20+300	0,0855	0,0805	0,0755	0,0721	0,0710	0,0700	0,0334
20+350	0,0820	0,0760	0,0705	0,0677	0,0674	0,0663	0,0512
20+400	0,0766	0,0721	0,0675	0,0645	0,0644	0,0634	0,0496
20+450	0,0737	0,0693	0,0650	—	—	—	0,0484
20+500	0,0707	0,0670	—	—	—	—	0,0475

Legend to Table 3: Mean specific heat of alloys c_m (kcal/kg·°C).

(1) Lead.

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"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001031220015-6

21217

S/126/61/011/003/003/017
E111/E435

18 8160 n38.1413, 1412

AUTHOR: Lyusternik, V.Ye.

TITLE: Specific Heat of Chromium Stainless Steels

PERIODICAL: Fizika metallov i metallovedeniye, 1961, Vol.11, No.3, pp.368-374

TEXT: The author maintains that the specific heat of high-chromium stainless steels with different heat treatments has been insufficiently studied. He points out that changes in true specific heat through heat effects of structural and allotropic transformations can serve as one of the methods of studying the properties of steel. In the present investigation, the author has used his previously-described (Ref.1 and 2) apparatus to effect a quantitative thermal analysis of three steels, types 2X13 (2Kh13), 4X13 (4Kh13) and 1X16C2MB (1Kh16S2MB). Their analyses are, respectively: 2Kh13 - 0.17% C, 0.35% Si, 0.4% Mn 12.7% Cr; 4Kh13 - 0.38% C, 0.26% Si, 0.68% Mn, 13.1% Cr, 0.6% Ni; 1Kh16S2MB - 0.15% C, 2.0% Si, 0.5% Mn, 16.0% Cr, 0.3% Ni, 0.8% Mo and 1.5 % Nb. Hardening temperatures were 1050, 1100 and 1100°C respectively and all were annealed at 950°C.

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21217

S/126/61/011/003/003/017
E111/E435

Specific Heat of ...

The 1Kh16S2MB steel was also 50% cold drawn and aged at 700°C for 500 hours. Rate of heating in the thermal analysis was about 3°/min, the range being 30 to 1000°C. With the vacuum adiabatic calorimeter used, an accuracy of 1% was obtained. For 2Kh13 steel the specific heat reaches a maximum (0.27 cal/g °C at 720°); by 770°C the value has fallen to 0.18; there is another peak (0.22) at 880°, due most probably to the alpha-gamma Fe transformation and solution of carbides in gamma Fe. The values obtained for the annealed steel agree well with the data of Awbary and Griffits (Ref.4) for 100 to 900°C. Up to 250°C, the specific heat of the steel in the hardened state is somewhat higher than that of the annealed steel (indicating the presence of some residual austenite in the former) and is lower at higher temperatures (250 to 750°C), with minima at 300 - 350, 450 and about 600°C (due to heat evolution accompanying tempering of the hardened structure); above 750°C there is no difference. Annealed 4Kh13 steel has specific heat maxima at 745°C (0.301 cal/g °C) at 820°C (0.34 approx) and 900°C (0.19) and minima at 810°C (0.198), 880°C (0.142) and 915°C (0.16). Up to 200°C there is

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21217
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E111/E435

Specific Heat of ...

little difference between specific heat values for this steel in the annealed and hardened states but at higher temperatures these values are generally lower for the hardened steel, with minima at 300, 450, 600 and 700°C; above the transformation temperature A_{C1} the two specific-heat curves coincide (a similar effect has been found by the author for carbon steels). The author notes that for the Kh13 steels, tempering effects occur in temperature ranges differing from those pertaining to carbon steels. With 1Kh16S2MB steel, which is of the ferritic class, the first maximum for the annealed state is at 642°C (0.238) and there is a smaller peak at 695°C. This may be due to the endothermic transition of $(CrFe)_4C$ into its high temperature modification $(CrFe)_7C_3$ although according to the equilibrium diagram this should occur at about 800°C. There are minima at about 660 and 890°C (0.18 and 0.164 respectively). Up to 650°C, the curve for the hardened steel deviates from that of the annealed steel only slightly (by 2 - 3%) at 170 and 400°C; at 650 to 825°C, the hardened-steel curve shows no maxima and is below the annealed-steel curve. above 825°C, the curves coincide. Ageing has no effect on the specific heat at 20 to 650°C but it gives higher

Card 3/5

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21217

S/126/61/011/003/003/017
E111/E435

Specific Heat of ...

values at 660 to 750°C and a steeper fall at over 765°C, than for the annealed state. Deformation gives higher values than those for annealed steel at 30 to 500 and lower at 500 to 650°C. At 660 to 850°C the temperature dependence of specific heat for the deformed is broadly similar to that of aged specimens but the fall starts at a lower temperature and is steeper: this is probably due to the fact that both deformation and ageing stimulate carbide formation. Neither ageing nor deformation have much effect on specific heat. The author uses his and published (Ref.4,5 and 6) data to show that with increasing chromium content (0 to 44%) of steels the specific heat at 800°C falls (0.170 to 0.150). The author's results agree well with those expected from the iron-carbon-chromium equilibrium diagram (Ref.3) and measurements of the electrical, magnetic and mechanical properties of high-chromium steels subjected to various heat treatments (Ref.7 and 8). There are 3 figures, 2 tables and 8 references: 4 Soviet and 4 non-Soviet.

ASSOCIATION: Vsesoyuznyy teplotekhnicheskiy nauchno-issledovatel'skiy institut im. F.E.Dzerzhinskogo (All-Union Heat Engineering Scientific Research Institute

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E111/E435

Specific Heat of ...

imeni F.E.Dzerzhinskiy)

SUBMITTED: July 11, 1960

Card 5/5

APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001031220015-6"

"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001031220015-6

ACCESSION NR: AP4000396 S/0294/63/001/001/0012/0016

AUTHORS: Neymark, B. Ye.; Lyusternik, V. Ye.; Anichkina, E. Yu.; By*kova, T. I.

TITLE: Thermophysical properties of nickel-chromium-iron alloys

SOURCE: Teplofizika vy*sokikh temperatur, v. 1, no. 1, 1963, 12-16

TOPIC TAGS: thermophysical property, nickel chromium iron alloy, nickel alloy, heat conductivity, resistivity, Lorentz number, thermal expansion, heat capacity, thermal diffusivity, nickel alloy density, iron, nickel, chromium, nickel alloy thermophysical property, nickel alloy heat conductivity, nickel alloy resistivity, nickel alloy thermal expansion

ABSTRACT: An all-inclusive experimental investigation is reported, in the temperature interval 20--900C, of the thermophysical properties of the alloys OKh16N36V3T (EI-855), OKh20N60B and OKh21N78T

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ACCESSION NR: AP4000396

(EI-435), which are all of the nickel-chrome, iron group. The reports published to date contain only data on the physical properties of individual alloys of this type. The research consisted of measuring thermal expansion, specific heat, thermal conductivity, electric resistivity, and the Lorentz number of the alloys. It can be concluded on the basis of these investigations and on the basis of investigations of similar alloys (B. G. Lifshitz, Fiz. Metallov i Metallovedeniye, v. 10, No. 1, 1960) that in the temperature interval 400--600C two types of structural transformations occur during the heating of hardened alloys of nickel-chrome, iron: in the interval 400--500C low-temperature aging, the so-called formation of the K state, and above 500C the precipitation of the second phase is predominant. The first process is characterized by an increase in the electric resistivity and a decrease in the specific volume, while the second is accompanied by a decrease in electric resistivity, an increase in the specific volume, and absorption of heat. The original article has: 2 figures and 2 tables.

Card 2/3

APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001031220015-6"

"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001031220015-6

ACCESSION NR: AP4000396

ASSOCIATION: Teplotekhnicheskiy nauchno-issledovatel'skiy institut im. F. E. Dzerzhinskogo (Heat Engineering Scientific-Research Institute)

SUBMITTED: 16May63 DATE ACQ: 13Dec63 ENCL: 00

SUB CODE: PH, MA NO REF SOV: 008 OTHER: 002

Card 3/3

APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001031220015-6"

"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001031220015-6

LYUSTERNIK, V.Ye.

Reproducibility of the graduation of a cyanoplatinite-platinum thermocouple within a wide temperature range. Teplofiz. vys. temp. 1 no.1:141-144 Jl-Ag '63. (MIRA 16:10)

1. Nauchno-issledovatel'skiy institut vysokikh temperatur.

APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001031220015-6"

"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001031220015-6

LYUSTERNIK, V.Ye.; KORYTINA, S.F.

Young's modulus and internal friction in EI973, OKh20N30 and OKh20N60 alloys. Fiz. met. i metalloved. 17 no.2:310-313 F '64. (MIRA 17:2)

1. Vsesoyuznyy teplotekhnicheskiy institut imeni F.E.Dzerzhinskogo.

APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001031220015-6"

"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001031220015-6

S/0126/64/017/002/0310/0313

ACCESSION NR: AP4017371

AUTHOR: Lyusternik, V. Ye.; Kory*tina, S. F.

TITLE: Young's modulus and the internal friction of alloys EI973, OKh20N80, and OKh20N60

SOURCE: Fizika metallov i metallovedeniye, v. 17, no. 2, 1964, 310-313

TOPIC TAGS: alloy Young modulus, internal friction, EI973 alloy, OKh20N80 alloy, temperature dependence, elasticity, stainless steel, OKh20N60 alloy

ABSTRACT: Results are presented of a study of the temperature dependence of the Young modulus and the internal friction (logarithmic damping decrement) for EI973, OKh20N80, and OKh20N60 alloys, the elastic properties of which are essentially unexplored. The alloys are heat-resistant and iron-based (EI 973) or nickel-based (OKh20N80 and OKh20N60). The EI973 alloy is a high-strength, austeniticmartensitic, age hardenable steel whose austenitic structure is unstable at high temperatures. The curves for the Young's modulus show the highest values for OKh20N80 (78% Ni), followed by those for OKh20N60 (59.64% Ni) and EI973. A sharp minimum appears at 600-650C on the EI973 curve, which suggests a rise in plasticity due to structural rearrangements caused by the formation of carbides. The internal friction of the EI973 steel was found to be higher

Card 1/2

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"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001031220015-6

ACCESSION NR: AP4017371

than that of the two others and to begin to increase sharply at a lower temperature, which suggests its comparatively low heat resistance. The testing procedure is described in detail. Orig. art. has: 1 table and 2 figures.

ASSOCIATION: Vsesoyuzny*y teplotekhnicheskiy institut im. F. E. Dzerzhinskogo (All-Union Institute of Heat Technology)

SUBMITTED: 03Jul63 ENCL: 00

SUB CODE: MM NO REF SOV: 006 OTHER: 001

Card 2/2

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"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001031220015-6

L 14810-65 EWT(d)/EWP(w)/EWA(d)/EWP(t)/EWP(b) BSD/ASD(a)-5/SSD/ASD(d)/AFWL/ESD(gs)/ESD(t) MJW/JD

ACCESSION NR: AP4047376 S/0294/64/002/005/0725/0729

AUTHOR: Neymark, B. Ye.; Lyusternik, V. Ye.; Kory*tina, S. F.

TITLE: Comprehensive study of the physical properties of Kh17N7Yu steel

SOURCE: Teplofizika vy*sokikh temperatur, v. 2, no. 5, 1964, 725-729

TOPIC TAGS: Kh17N7Yu steel, AISI 17 7PH steel, physical property, phase transformation, temperature dependence, heat treatment

ABSTRACT: A comprehensive study has been made of the physical properties of Kh17N7Yu steel [AISI 17-7PH] and of the effect of heat treatment on some of these properties. The study was carried out in the 20—900C range on steel air hardened from 1050C and tempered at various temperatures. Tabulated or diagramed data are given on the coefficient of linear expansion, density, heat capacity, heat conductivity, temperature diffusivity, modulus of normal elasticity, electric resistivity, internal friction, and Lorentz number of the steel studied. Correlation of the obtained data with the results of a previous investigation of the phase transformations in the Kh17N7Yu

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ACCESSION NR: AP4047376

steel showed that the temperature ranges within which the physical property curves have extremum values agree well with the temperature ranges for phase transformations. Hence the procedure described can well be used for determining the nature of changes in the structure and mechanical properties of an alloy, depending on the temperature and heat treatment. Orig. art. has: 4 figures and 1 table.

ASSOCIATION: Vsesoyuznyy teplotekhnicheskiy nauchno-issledovatel'skiy institut im. F. E. Dzerzhinskogo (All-Union Heat Engineering Scientific Research Institute)

SUBMITTED: 16May64 ENCL: 00 SUB CODE: MM

NO REF SOV: 007 OTHER: 000 ATD PRESS: 3180

Card 2/2

APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001031220015-6"

"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001031220015-6

NEYMARK, B.Ye.; LYUSTERNIK, V.Ye.; KO[illegible]INA, S.[illegible].

Comprehensive study of the physical properties of KH[illegible] steel. Tepolfiz. vys. temp. 2 no.5:725-729 S-O '64. (MIRA 17:11)

1. Vsesoyuznyy teplotekhnicheskiy nauchno-issledovatel'skiy institut imeni F.E. Dzerzhinskogo.

APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001031220015-6"

"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001031220015-6

LYUSTGARTEN, Ye. I.; LI, V. P.; PASHKOV, A. B.; SKAKAL'SKAYA, N. B.; DAVYDOVA, T. I.; ZHUKOV, M. A.

Synthesis and analysis of copolymers with a macroporous structure. Plast. massy no. 5:7-10 '64. (MIRA 17:5)

APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001031220015-6"

"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001031220015-6

AUTHOR: Lyustgarten, Ye.I.; [illegible]
Davydova, T.I.; Zhukov, M.A.

TITLE: Synthesis and investigation of copolymers of macroporous structure 13

SOURCE: Plasticheskiye massy, no. 5, 1964, 7-10

TOPIC TAGS: styrene divinylbenzene copolymer, acenaphthylene divinylbenzene copolymer, synthesis, macroporous structure, macroporosity, microporosity, thermal stability, radiation stability, bulk density, chain transfer, chain termination, polymerization, copolymer swelling, cross linkage, ion exchange resin

ABSTRACT: The synthesis and properties of macroporous copolymers of styrene with divinylbenzene (DVB) and of acenaphthylene with DVB which are useful as ion exchange resins, were investigated in solvents in which they swell (toluene, carbon tetrachloride) and in which they do not swell (n-heptane, n-nonane). The structures of the copolymers with improved mechanical and kinetic properties were also examined. Of these two types of copolymers, the acenaphthylene-DVB ion exchange resin probably has a higher thermal and radiation stability. The copolymers made in toluene and CCl_4 were similar in appearance and bulk density to the usual copolymers, but

Card 1/2

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ACCESSION NR: AP4035098

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those synthesized in the aliphatic solvents formed dull granules of lower bulk density, characteristic of macroporous products. Thus, to obtain macroporous structure the solvent should mix with the initial monomer, should not cause chain transfer or termination, and not promote a swelling of the copolymer. The effect of the amount of solvent and of the extent of cross-linkage (DVB content) on the type of porosity was also examined. It was found that the macro- and average-size pores absorb cyclohexane, while all types of pores absorb toluene. The difference in absorption, therefore, determines the microporosity of the copolymers. The results indicated that increases in DVB and in solvent increase the total porosity of the copolymer and the macroporosity simultaneously with decrease in microporosity. The degree of macroporosity depends on the DVB to solvent ratio. For styrene copolymers the optimum ratio is 20-30 wt.% DVB and 50-60% (on weight of monomer) of n-heptane; for acenaphthylene copolymers 30-40% DVB and 40-50% n-nonane. "Work was conducted at the Ural State University under the direction of Prof. A.A. Tager." Orig. art. has: 1 table, 6 figures, and 5 equations.

ASSOCIATION: none

SUBMITTED: 00

NO REF SOV: 003

ENCL: 00

OTHER: 013

SUB CODE: OC, GC

Card 2/2

APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001031220015-6"

"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001031220015-6

L 08791-67 EWT(m)/EWP(j) DS/RM SOURCE CODE: UR/0191/66/000/009/0003/0005
ACC NR: AP6030841

AUTHOR: Pashkov, A. B.; Galitskaya, N. B.; Lyustgarten, Ye. I.

ORG: none

TITLE: Copolymerization of 2-vinylpyridine with divinylbenzene

SOURCE: Plasticheskiye massy, no. 9, 1966, 3-5

TOPIC TAGS: copolymerization, polymerization catalyst, synthetic material, vinyl plastic, high polymer, copolymer, block copolymer

ABSTRACT: Copolymerization of 2-vinylpyridine with divinylbenzene was studied at 80-100°C using benzoyl peroxide, tert-butylperbenzoate, and mixtures of them in various ratios (from 1:3 to 3:1) as initiators. The object of the work was to define the optimum conditions for preparing a highly cross-linked copolymer, a useful anion-exchange resin. The initiator concentration in the reaction mixtures was 0.025-0.1 moles/l and the polymerization process was 15 min to 3 hrs. The yields of both the low molecular material and the highly cross-linked product are tabulated. At a constant temperature an increase in the initiator concentration from 0.025 to 0.1 moles/l was found to result in a 17-27% increase in the yield of the highly cross-linked product. At a constant initiator concentration, an increase in temperature from 80° to 100°C was found to result in a 22-25% increase in the yield of the highly cross-linked product.

UDC: 678.766.22-134.65

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"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001031220015-6

L 08791-67

ACC NR: AP6030841

The lower the copolymerization temperature the higher was the yield of the highly cross-linked product. The maximum yield (97.5%) of the highly cross-linked 2-vinylpyridine-divinylbenzene copolymer was achieved at a 1:1 monomer ratio. The density was 1.1 g/cm^3. Orig. art. has: 5 figures and 2 tables.

SUB CODE: 07/ SUBM DATE: 00/ ORIG REF: 009/ OTH REF: 000

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APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001031220015-6"

"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001031220015-6

TIMOFEYEVA, G.A., kand.med.nauk; BOGDANOVA, S.M.; DANILOVA, V.A.; LYUSTIGMAN, Ye.D.

Etiology and clinical aspects of gastrointestinal diseases in children, especially infants. Sov. med. 25 no.2:42-46 F '62. (MIRA 15:3)

1. Iz kafedry infektsionnykh zabolevaniy u detey (zav. kafedry - dotsent A.T. Kuz'micheva) Leningradskogo pediatricheskogo meditsinskogo instituta (dir. - kand.med.nauk Ye.P. Semenova) i detskoy infektsionnoy bol'nitsy Sverdlovskogo rayona (glavnyy vrach - zasluzhennyy vrach RSFSR N.A. Nikitina).
(GASTROENTEROLOGY)

APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001031220015-6"

"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001031220015-6

GEFTER, Ye.L.; PASHKOV, A.B.; LYUSTGARTEN, Ye.I.

Research in the field of new types of phosphorus-containing cation-exchanging resins. Khim.nauka i prom. 3 no.6:825 '58. (MIRA 12:2)

1. Nauchno-issledovatel'skiy institut plasticheskikh mass.
(Base-exchanging compounds)

APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001031220015-6"

"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001031220015-6

PASHKOV, A.B.; ITKINA, M.I.; BATENINA, N.V.; LYUSTGARTEN, Ye.I.

Comparative thermal stability of anionites. Plast.massy no.5:20-25 '61. (MIRA 14:4)

(Ion exchange resins—Thermal properties)

APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001031220015-6"

"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001031220015-6

UTYAMYSHEV, Rustam Ismailovich; LYUSTIBERG, B.F., red.; VORONIN, K.P., tekhn. red.

[Measuring rate of rotation] Tekhnika izmereniia skorostei vrashcheniia. Moskva, Gos. energ. izd-vo, 1961. 102 p. (MIRA 14:9)

(Tachometer)

APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001031220015-6"

"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001031220015-6

LELIKOV, Sergey Ivanovich; SELEZNEVA, Lidiya Kirillovna; BODRETSOVA, Anastasiya Ivanovna; LYUSTIBERG, V.E., inzh., ved. red.; SEMIBRATOV, M.N., kand. tekhn. nauk, red.; SOROKINA, T.M., tekhn. red.

[Spectral metal-vapor lamps. High-intensity hydrogen GV-3 Geissler tube]Spektral'nye parometa licheskie lampy. Vysokointensivnaia geislerovskaia vodorodnaia trubka GV-3[By]A.I. Bodretsova i S.I.Levikov. Moskva, Filial Vses.in-ta nauchn. i tekhn. informatsii, 1958. 11 p. (Peredovoi nauchno-tekhnicheskii i proizvodstvennyi opyt. Tema 37. No.P58-90/3) (MIRA 16:2)

(Electric lamps) (Optical instruments)

APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001031220015-6"

"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001031220015-6

REEBEN, Vello Avgustovich; LYUSTIBERG, V.F., inzh., ved. red.; LEVIN, G.E., kand. tekhn. nauk, red.; SOROKINA, T.M., tekhn. red.

[FUAZ-2 photometer with automatic protection and linear and logarithmic scales]Avtomaticheski zashchitshchennyi fotometr FUAZ-2 s lineinoi i logarifmicheskoi shkalami. Moskva, Filial Vses. in-ta nauchn. i tekhn. informatsii, 1958. 9 p. (Peredovoi nauchno-tekhnicheskii i proizvodstvennyi opyt. Tema 37. No.P-58-97/4) (MIRA 16:3)

(Photometers)

APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001031220015-6"

"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001031220015-6

VAYNSHTEYN, Boris Konstantinovich, doktor fiz.-mat. nauk; PINSKER, Zinoviy Grigor'yevich, doktor khim. nauk; LYUSTIBERG, V.F., inzh., ved. red.; KHIMCHENKO, N.V., kand.tekhn. nauk; SOROKIN, T.M., tekhn. red.

[Electron diffraction camera for structural studies]Elektronograf dlia strukturnykh issledovanii. Moskva, Filial Vses. inta nauchn. i tekhn. informatsii, 1958. 13 p. (Peredovoi nauchno-tekhn. i proizvodstvennyi opyt. Tema 33. No.P-58-100/5) (MIRA 16:3)

(Electron diffraction apparatus)

APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001031220015-6"

"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001031220015-6

SOLOMONOV, Vasiliy Georgiyevich; LYUSTIBERG, V.F., inzh., ved. red.; YAKOVLEV, D.A., inzh., red.; SOROKINA, T.M., tekhn. red.

[Device for synthesizing characteristics (magazine with various characteristics)]Ustroistvo dlia sinteza kharakteristik (magazin kharakteristik). Moskva, Filial Vses. in-ta nauchn. i tekhn. informatsii, 1958. 34 p. (Peredovoi nauchno-tekhnicheskii i proizvodstvennyi opyt. Tema 36. No.P-58-9/4) (MIRA 16:3)
(Television--Equipment and supplies) (Electric filters)
(Attenuators (Electronics))

APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001031220015-6"

"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001031220015-6

LEBEDEV, Gennadiy Aleksandrovich; ~~LYUSTIBERG, V.F., inzh.~~, ved. red.; DAYCHIK, M.L., inzh., red.; SOROKINA, T.M., tekhn. red.

[Apparatus for testing the characteristics of polymer samples under tensile stress]Ustanovka dlia issledovaniia kharakteristik polimernykh obraztsov pri rastiazhenii. Moskva, Filial Vses. in-ta nauchn. i tekhn. informatsii, 1958. 7 p. (Peredovoi nauchno-tekhnicheskii i proizvodstvennyi opyt. Tema 32. No.P-58-61/10) (MIRA 16:3)

(Polymers--Testing)

APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001031220015-6"

"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001031220015-6

TIMOFEYEV, Yevgeniy Il'ich, kand. tekhn. nauk; URVANTSEV, Lev Alekseyevich, kand. tekhn. nauk; LYUSTIBERG, V.F., inzh., ved. red.; ZAYTSEV, G.Z., inzh., red.; SOROKINA, T.M., tekhn. red.

[Equipment for the impact testing of metals]Ustanovka dlia dinamicheskogo ispytaniia metallov. Moskva, Filial Vses. in-ta nauchn. i tekhn. informatsii, 1958. 17 p. (Peredovoi nauchno-tekhnicheskii i proizvodstvennyi opyt. Tema 32. No.P-58-5/3) (MIRA 16:3)

(Metals--Testing)

APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001031220015-6"

"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001031220015-6

LALENKOV, Ivan Semenovich; LYUSTIBERG, V.F., inzh., ved. red.; DAYCHIK, M.L., inzh., red.; SOROKINA, T.M., tekhn. red.

[Two-channel TIS-4 tensiometer]Dvukhanal'nyi tenzometricheskii izmeritel' TIS-4. Moskva, Filial Vses. in-ta nauchn.i tekhn. informatsii, 1958. 9 p. (Peredovoi nauchno-tekhnicheskii i proizvodstvennyi opyt. Tema 31. No.P-58-106/11) (MIRA 16:3)
(Tensiometers)

APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001031220015-6"

"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001031220015-6

FASTOVSKIY, Izya Abramovich; LYUSTIBERG, V.F., inzh., ved. red.; EL'KIN, A.Yu., inzh., red.; PONOMAREV, V.A., tekhn. red.

[AP-28 interference analyzer]Analizator pomekh AP-28. Moskva, Filial Vses. in-ta nauchn. i tekhn. informatsii, 1958. 21 p. (Peredovoi nauchno-tekhnicheskii i proizvodstvennyi opyt. Tema 36. No.P-58-101/14) (MIRA 16:3)
(Radio measurements) (Interferometer)

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"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001031220015-6

IOGANSEN, Aleksandr Aleksandrovich; LYUSTIBERG, V.F., inzh., ved. red.; SOKOLOV, I.D., inzh., red.; SOROKINA, T.M., tekhn.red.

[800 timer calibrator]Sekundomer-kalibrator tipa 800. Moskva, Filial Vses.in-ta nauchn. i tekhn.informatsii, 1958. 17 p. (Peredovoi nauchno-tekhnicheskii i proizvodstvennyi opyt. Tema 31. No.P-58-34/6) (MIRA 16:3)
(Automatic timers)

APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001031220015-6"

"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001031220015-6

LYAPIDEVSKIY, Viktor Konstantinovich, kand. fiz.-mat. nauk; LYUSTIBERG, V.F., inzh., ved. red.; LEVIN, G.E., kand. tekhn. nauk, red.; SHVETSOV, G.V., tekhn. red.

[Diffusion chamber for determining slight α- and β-activities] Diffuzionnaia kamera dlia opredeleniia malykh α- i β-aktivnostei. Moskva, Filial Vses. in-ta nauchn. i tekhn. informatsii, 1958. 15 p. (Peredovoi nauchno-tekhnicheskii i proizvodstvennyi opyt. Tema 41. No. P-58-77/3) (MIRA 16:3)

(Cloud chamber) (Radioactive fallout)

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"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001031220015-6

KRAYZMER, Leonid Pavlovich; LYUSTIBERG, V.F., red.; SHIROKOVA, M.M., tekhn. red.

[New elements of electronic digital computers] Novye elementy elektronnykh tsifrovykh mashin. Moskva, Gos. energ. izd-vo, 1961. 94 p. (MIRA 15:2)
(Electronic digital computers)

APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001031220015-6"

"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001031220015-6

VISHENCHUK, Igor' Mikhaylovich; KOTYUK, Andrey Fedorovich; MIZYUK, Leonid Yakovlevich; LYUSTIBERG, V.F., red.; YEMZHIN, V.V., tekhn. red.

[Electromechanical and electronic phase meters] Elektromekhanicheskie i elektronnye fazometry. Moskva, Gosenergoizdat, 1962. 206 p. (MIRA 15:7)
(Electric measurements) (Electronic measurements)

APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001031220015-6"

"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001031220015-6

SEMENTOVSKIY, Yuriy Vladimirovich; LYUSTIBERG, V.E., inzh., ved. red.; KHIMCHENKO, N.V., kand. tekhn. nauk, red.; SOROKINA, T.M., tekhn. red.

[Universal rotor-integrator for the quantitative geometrical analysis of rocks and materials]Universal'nyi rotor-integrator dlia kolichestvennogo geometricheskogo analiza gornykh porod i materialov. Moskva, Filial Vses.in-ta nauchn. i tekhn. informatsii, 1958. 8 p. (Peredovoi nauchno-tekhnicheskii i proizvodstvennyi opyt. Tema 33. No.P-58-139/7) (MIRA 16:3)
(Integrators) (Mineralogy, Determinative)

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"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001031220015-6

PROTOPOPOV, Sergey Petrovich; LYUSTIBERG, V.F., insh., ved. red.; KHIMCHENKO, N.V., kand. tekhn. nauk, red.; SOROKINA, T.M., tekhn. red.

[Electronic device for determining residual austenite in steel]Elektronnyi pribor dlia opredeleniia ostatochnogo austenita v stali. Moskva, Filial Vses. in-ta nauchn. i tekhn. informatsii, 1958. 9 p. (Peredovoi nauchno-tekhnicheskii i proizvodstvennyi opyt. Tema 33. No.P58-92/4) (MIRA 16:3)

(Steel--Analysis) (Electronic measurements) (Austenite)

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"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001031220015-6

PETROV, Lev Vasil'yevich; LYUSTIBERG, V.E., inzh., ved.red.; DAYCHIK, M.L., inzh., red.; SOROKINA, T.M., tekhn. red.

[2 TSU-2 strain-measuring unit]Tenzometricheskaia stantsiia 2TSU-2. Moskva, Filial Vses. in-ta nauchn. i tekhn. informatsii, 1958. 11 p. (Peredovoi nauchno-tekhnicheskii i proizvodstvennyi opyt. Tema 31. No.P-58-107/12) (MIRA 16:3) (Electronic instruments) (Strain gauges)

APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001031220015-6"

"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001031220015-6

BRANFENBRENER, Anatoliy Aleksandrovich; ~~LYUSTIBERG, V.F., inzh.,~~ ved. red.; YAKOVLEV, D.A., inzh., red.; SOROKINA, T.M., tekhn. red.

[Central wobbulator for visual slignment of the IF of AM and FM channels of radio receivers]TSentralizovannyi generator kachaiushcheisia chastoty dlia vizual'noi nastroiki AM i ChM traktov promezhutochnoi chastoty radioveshchatel'nykh priemnikov. Moskva, Filial Vses.in-ta nauchn. i tekhn. informatsii, 1958. 13 p. (Peredovoi nauchno-tekhnicheskii i proizvodstvennyi opyt. Tema 36. No.P-58-114/15)
(MIRA 16:3)

(Radio--Receivers and reception)
(Oscillators, Electron-tube)

APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001031220015-6"

"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001031220015-6

SOKOLIK, Anatoliy Ioniasovich; CHARNETSKIY, Konstantin Konstantinovich; FOMICHEV, Aleksey Georgiyevich; LYUSTIBERG, V.F., inzh., ved. red.; YAKOVLEV, D.A., inzh., red.; SOROKINA, T.M., tekhn.red.

[High-voltage OK-19M oscillograph system] Vysokovol'tnaia ostsillograficheskaia ustanovka OK-19M. Moskva, Filial Vses. in-ta nauchn.i tekhn.informatsii, 1958. 15 p. (Peredovoi nauchno-tekhnicheskii i proizvodstvennyi opyt. Tema 35. No.P-58-25/2) (MIRA 16:3)

(Cathode ray oscillograph)

APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001031220015-6"

"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001031220015-6

VASIL'YEVA, Rimma Vasil'yevna, inzh.; ~~LYUSTIBERG, V.F.~~, inzh., ved. red.; DAYCHIK, M.L., inzh., red.; FOMICHEV, P.M., tekhn. red.

[Vibrating stand for calibrating vibrometers and accelerometers in a wide frequency range]Vibrostendy dlia tarirovki vibrometrov i akselerometrov v shirokom diapazone chastot. Moskva, Filial Vses. in-ta nauchn. i tekhn. informatsii, 1958. 20 p. (Peredovoi nauchno-tekhnicheskii i proizvodstvennyi opyt. Tema 31. No.P-58-14/2) (MIRA 16:3)
(Vibration—Measurement) (Electronic instruments)
(Accelerometers—Testing)

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