APPROVED FOR RELEASE: 06/14/2000

CIA-RDP86-00513R000825830007-8

KCZLOV, C. M.

Cand Phys-Math Sci - (diss) "Fractional degrees of self-conjugate expansions of operators and several boundary problems." Moscow, 1961. 9 pp; (Ministry of Higher and Secondary Specialist Moscow, tion USSR, Moscow State Univ imeni M. V.Lomonosov); 200 copies; price not given ; bibliography on pp 8-9 (15 entries); (KL,

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APPROVED FOR RELEASE: 06/14/2000

CIA-RDP86-00513R000825830007-8

3/044/62/000/006/024/127 B158/B112 AUTHOR: Kozlov, O. M. TITLE: The expansion of operators and the second boundary problem PERIODICAL: Referativnyy zhurnal. Matematika, no. 6, 1962, 68, abstract 6B208 (Sb. "Funktsional'n. analiz i ego primeneniye! Baku, AN AzerbSSR, 1961, 146 - 151) TEXT: For the elliptic equation - <u>></u> $\frac{\partial}{\partial x_i} (a_{ik}(x) \frac{\partial u}{\partial x_k}) + o(x)u = f(x)$ 1, k=1 (1)in a bounded domain G with a sufficiently smooth boundary Γ is sought a solution satisfying the boundary condition <u>ð 11</u> ð **y** + ou -, = O. (2) Here o is a certain operator which is possibly non-linear. It is noted that even in the simplest case $\sigma u = \sigma(x)u(x)$ condition (2) cannot be ful-

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The expansion of operators ...

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filled for functions u(x) smooth in G + i if function f'(x) is not smooth. The question of a generalized interpretation of condition (2) is discussed in this connection. The author introduces suitable definitions derived from concepts of the theory of general boundary problems of M. I. Vishik (Tr. Mosk. matem. o-va, 1952, v. 1, 187-246). The existence of a generalized solution to problem (1), (2) is established for certain classes of f'operators. [Abstracter's note: Complete translation.]

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s/0041/64/016/002/0143/0156 AP4026831 ACCESSION NR: AUTHOR: Kozlov, O. M. (Kiev) TITLE: Solutions of certain boundary value problems with discontinuous coefficients involved in the boundary conditions SOURCE: Ukrainskiy matematicheskiy zhurnal, v. 16, no. 2, 1964, 143-156 TOPIC TAGS: boundary value problem, discontinuous coefficient, boundary condition, second boundary value problem, second order elliptic equation, smooth coefficient, conormal derivative, enclosure theorem, boundary operator, generalized solution ABSTRACT! As is known, the "second boundary value problem" for a second order elliptic equation (1) $1 - \sum_{l=1}^{n} \frac{\partial}{\partial x_{l}} \left(a_{lk}(x) \frac{\partial f}{\partial x_{k}} \right) + c(x) f = g.$ (2) $\frac{\partial f}{\partial \mathbf{v}}|_{\mathbf{r}} + \sigma(\mathbf{x})f|_{\mathbf{r}} = 0$ in the case of sufficiently smooth coefficients $a_{ik}(x)$, $c(x) \ge 0$, $\sigma(x) \ge 0$ has a Card 1/3

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ACCESSION NR: AP4026831

solution, for any $g \in L_2$, belonging to $W_2^{(2)}$. Here, in condition (2), the boundary value of the conormal dérivative is taken in the sense of an enclosure theorem. For non-smooth coefficients for the boundary conditions, δ , the following assertion seems to be valid: even for continuous σ problems (1), (2), as examples show, may not have a solution in $W_2^{(2)}$. Thus, in many papers the formulation of problem (1), (2) should be generalized. For example, for constructing a generalized solution one can first extend the boundary condition (2) with the help of the special boundary operators γ_1, γ_2 introduced by M. I. Vishik. With such an approach to the construction of a solution of (1), (2), as with the other approach, the existence of 116 and satisfaction of (2) is guaranteed only in a very conditional sense. The JVIn author proposes a different generalized formulation of problem (1), (2) and constructs a solution satisfying the boundary condition in a certain "strong" sense. He also extends the boundary condition (2) immediately, but in a different fashion, without using boundary operators. For existence of a generalized solution it is required of the coefficient & in the boundary condition, that instead of being smooth, only that it be summable by some degree of 6. All constructions are made under weaker assumptions than those of other authors, on smoothness of the coefficients of the differential equation (1), and are also applicable for investigation of problems with certain nonlinear boundary conditions. "This work was completed . • _Card _2/3

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"APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R000825830007-8

ACC NR: AM6023687	Monograph	59 B+1 WR/
Chernetskiy, Aleksandr Vasil'yev Vasil'yevich	vich; Zinov'yev, Oleg Anato	l'yevich; Kozlov, Oleg
pparatus and methods for <u>plasma</u> Moscow, Atomizdat, 65. 0363 p	9M <u>a s</u> tudies (Apparatura i met p. illus., biblio. 3,190	ody plazmennykh issledovaniy) copies printed.
OPIC TAGS: plasma measurement,	, plasma radiation, plasma	research, plasma diagnostics
URPOSE AND COVERAGE: The techn parameters of a <u>plasma</u> ; e.g., ch of ionization, etc, are consider plasma, superhigh frequency tech	narged particle density, pa red. After a brief discuss miques and apparatus are d	rticle temperature, degree ion of the properties of a escribed, including antenna.
Aveguide, and oscillator system submillimeter regions are discus the final section of the book is neutral and charged particle flu	ns. Measurements of plasma used together with the inst devoted to corpuscular pr x, pressure, and compositi	radiation in the radio and rumentation requirements. operties of a plasma: on of the plasma. The use
of tritium, atomic, and molecula concludes with two appendices; t clasma measurements, the second nergy tables.	the first contains tables d	escribing equipment used for
ABLE OF CONTENTS Zabridged7:		_

APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R000825830007-8"

L 01999-67 Ο ACC NR: ALI6023687 Foreword - - 3 Section I. General problems of superhigh frequency diagnostics of plasma - - 13 Introduction - - 9 Ch. 1. Electromagnetic properties of plasma - - 13 Ch. 2. Basic superhigh frequency units of diagnostic apparatus - - 21 Bibliography for Section I - - 46 Section II. Superhigh frequency apparatus for active diagnostics of plasma - - 54 Ch. 3. Measurement of plasma parameters by the cutoff and "two-frequency" methods -Ch. 4. Measurement of plasma electron density by the resonator method - - 66 Ch. 5. Phase-measuring devices for studying plasma parameters with carrier phase measurement - - 74 Ch. 6. Phase-measuring devices with frequency conversion - - 93 Ch. 7. Plasma locators - - 131 Bibliography for Section II - - 142 Supplementary bibliography for Section II - - 146 Section III. Apparatus for measuring natural plasma radiation - - 149 Introduction - - 149 Ch. 8. Measurements in the radio region - - 154 Ch. 9. Measurements in the submillimeter region - - 198 Bibliography for Section III - - 210 Section IV. Apparatus and methods of corpuscular diagnostics of plasma - - 212 Ch. 10. Investigation of corpuscular fluxes of plasma - - 213 Card 2/3

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CCESSION NR: AT4025310	8/0000/63/000/003/0199/0211
UTHORS: Kozlov, O. V.; Rodin, A. .; Chernetskiy, A. V.	M.; Rusanov, V. D.; Skoblo, Yu.
TITLE: Plasma diagnostics by atom	and ion beams
SOURCE: Diagnostika plazmy* (Plas Moscow, Gosatomizdat, 1963, 199-21	ma diagnostics); sb. statey. l
TOPIC TAGS: plasma interaction, d magnetic analysis, charge exchange beam	ischarge plasma, gas discharge, , plasma research, ion beam, atom
a strend for the attomustion of 100	changed atom beams. Formulas are
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ACCESSION NR: AT4025310 \rightarrow He, H⁺ \rightarrow H₂, He⁺ \rightarrow Ar and others. The discrepancy between the experimental and calculated data becomes appreciable at high pressures. The limiting pressure amounted to $(2--3) \times 10^{15}$ cm⁻² for the pair $Ar^+ \rightarrow Ar$ with Ar^+ energy 10 keV and about 10¹⁶ cm⁻² for the $H^+ \rightarrow H_2$ pair. Analogous results were obtained by measuring the broadening of the lines of the magnetic-analyzer spectrum. Measurements were also made of the dependence of the ion density on the discharge current. Apparatus was developed for the study of magnetosonic resonance and used to measure the attenuation of atomic argon beams in a hydrogen plasma, atomic helium beams in a helium plasma, and atomic argon beams in helium plasma. It is concluded that in spite of certain difficulties, the method of determining plasma parameters by means of beams of fast particles is worthy of serious attention, since it has undisputed advantages (practical elimination of contacts, locality of probing, wide range of measured quantities, and possibility of quantitative determination of the plasma composition). It is also concluded that atomic beams are Card

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focusing voltages). Further technical details on equipment and testing procedure, along with experimental results and their interpretation. are discussed in the article. For all its simplicity of manufacture and operation, the ion source described in this paper was found to possess rather good characteristics and to be capable of utilization not only in plasma studies but in many other branches of science as well: accelerator engineering, semiconductor property studies, and other physics research arcss. Orig. art. hast 4 figures.

ASSOCIATION: none

SUBMITTED: 10Nov6S ENCL. 00 SUB CODE: IP, PR

NO REF SOVI 002 OTHERS 006

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KOZLOV, P.

Control over the utilization of working time. Sots. trud 8 no.9: 76-80 S '63. (MIRA 16:10)

1. Inspektor Komitata partiyno-gosudarstvannogo kontrolya Moskovskogo promyshlannogo oblastnogo komitata Kommunisticheskoy partii Sovatskogo Soyuza i Moskovskogo oblastnogo ispolnital'nogo komitata.

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KOZLOV, P.A.; SPEKTOR, G.A.

Modernizing the BS-24 automatic machine. Stek. i ker. 22 no.3:40 Mr 465. (MIRA 18:10)

 Direktor Klyevskogo zavoda khudozhestvennogo stekla (for Kozlov).
Glavnyy tekhnolog Klyevskogo zavoda khudozhestvennogo stekla (for Spektor).

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KOZLOV P.D.: YAKOVLEVA, S.A.; CHAP\$KIY, O.U., redaktor; MOLODTSOVA, M.G., tekhnicheskiy redaktor.

[Operation of the "Belarus'" tractor] Ekspluatatsiia traktora "Belarus'" Moskva, Gos.izd-vo sel'khoz.lit-ry, 1957. 177 p. (MLRA 10:6)

(Tractors)

APPROVED FOR RELEASE: 06/14/2000



SOY/112-58-2-1942

Translation from: Referativnyy zhurnal, Elektrotekhnika, 1958, Nr 2, * pp 25-26 (USSR)

AUTHOR: Kozlev, P. F.

TITLE: Standardized Projects of Locomobile Electric Stations Using Waste Heat (Tipovyye proyekty lokomobil'nykh elektrostantsiy s ispol'zovaniyem strabotavshego tepla)

PERIODICAL: V sb.: Teplosnabzheniye i teploenerg. ustanovki s. kh. Minsk, AN BSSR, 1956, pp 63-76

ABSTRACT: Giprosel'elektro Design Institute has released standardized projects of electric stations with P-75, ST-125, SK-125, and SK-250 locomobiles (selfpropelled steam engines). Engineering-economic estimates show that a 15% increase in initial investment, as compared to the electric stations not using waste heat, cuts the cost of 1 kwh by 40% and increases the efficiency up to 45-50%. Of 674,000 kilocalories/h entering the P-75 locomobile furnace, 348,000 kilocalories/h can be supplied to consumers; for the ST-125 locomobile,

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SOY/112-58-2-1942

Standardized Projects of Locomobile Electric Stations Using Waste Heat

this quantity is 580,000 kilocalories/h. The projects are worked out in such a way that additional equipment for waste-heat utilization can be installed without expanding the main building. A steam oil separator, steam distributor, heat exchangers, network supply pumps, and other auxiliary equipment must be installed. Heating-and-electricity stations should be designed on the basis of their heating-load curve. Operation of such stations in combination with local hydroelectric stations and in parallel with the power system is particularly advantageous. The standardized projects do not provide for utilization of wastegas heat because no suitable equipment exists for the tail end of small plants. LPU-1, 25-kw installations as well as MOTsKTI 100-hp installations are not economical because they lack a heating load, work on direct exhaust, and have higher fuel consumption than that of locomobiles. It is necessary: (1) to raise the steam pressure and to cut the amount of metal used for locomobiles; (2) to organize production of STK locomobiles with surface condensers; (3) to curstruct small-size farmaces for burning peat and anthracite; (4) to construct

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s/0000/63/000/000/0173/0181 AT4025307 ACCESSION NR: AUTHORS: Bogdanov, G. F.; Kozlov, P. L.; Maksimenko, B. P. TITLE: Use of the field of the 'Ogra' itself for mass and energy analysis of fast ions emerging from a mirror SOURCE: Diagnostika plazmy* (Plasma diagnostics); sb. statey. Moscow, Goastomizdat, 1963, 173-181 TOPIC TAGS: plasma injection, plasma research, plasma instability, magnetic mirror, ionized plasma, mass spectrometer, ion mass analyzer, plasma density ABSTRACT: A simple ion mass analyzer was developed for the stream of fast ions emerging from a mirror. In addition, a spectrometer was developed for the measurement of the energy spectrum of the ions. The two instruments were located in the region of maximum of the magnetic field of the "Ogra" apparatus, which was also used to separate 1/5 Card

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AT4025307 ACCESSION NR: The analyzer was used to measure the distributions of the 0 fluxes of atomic and molecular ions over the radius of the chamber at azimuth angles 0 and 180°. The spectrometer was used to obtain analogous distributions for 70 and 250°. These data were used to determine the fluxes of the ions emerging from the "Ogra" through. determine the fluxes of the fluxes of the H_1^+ and H_2^+ ions are proportional to the current of the injected ions, and that the density of the atomic ions is higher in the unstabilized mode than would follow from data obtained with the aid of neutral-particle detector after turning off the injected current. The spectrometer was also used to investigate the spectra of atomic and molecular ions leaving the mirror. At plasma densities above 10^6 cm⁻³ the ion spectra have an anomalously great width which has not yet been explained. The construction and adjustment of the apparatus are described in detail. Orig. art. has: 4 figures and 2 tables. 2/5 Card

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KOZLOV, Petr Mikhaylovich; PEKELIS, V., red.; KURLTKOVA, L., tekhn.red. [Invasion of s myth] Vtorzhenie mifa. Moskva, Izd-vo TaK VLKSM, "Molodais grandiia," 1960. 76 p. (MIRA 13:6) (Chemical engineering)

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Forlow, M.M.

USSR/Chemical Technology. Chemical Products and Their I-23 Application--Synthetic polymers. Plastics.

Abs Jour: Ref Zhur-Khimiya, No 3, 1957, 9818

Author : Kozlov, P. M.

Inst : Not given

Title : The Expansion and Improvement of the Production of Plastics and the Improvement of Their Mechanical Processing

Orig Pub: Khim. prom-st. 1954, No 7, 18-23

Abstract: The expansion of the production of thermoplastics must be achieved by improved compression-molding and continuous extrusion-molding methods as well as by the introduction of automatic assembly lines starting at the batching of the components and on through the final mechanical processing of the finished articles. The thermoplastic materials currently being produced exhibit great variations in their plastic properties, in the light of which

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Koglov, USSR/Chemis	P/ try	ව. - Plastics	FD-961
Card 1/1		Pub. 50 - 4/19	
Author	:	Kozlov, P. M.	
Title	:	Problems of improving efficiency and technological procedures working and mechanical treatment of plastics	in the
Periodical	:	Khim. prom., No 7, 402-407 (18-23), Oct-Nov 1954	
Abstract	:	Advocates automatically controlled continuous procedures in the duction of objects from thermosetting resins, improvement in p molding and continuous extrusion processes in the production jects from thermoplastic resins, use of plastometers and therm ical devices in production control, consideration of flow cha tics, and other measures designed to achieve higher efficiency prove quality. Emphasizes the use of plastics in the constru- machines. Discusses in part properties of viniplast sheets, rene, and fluorine-containing plastics from the standpoint of tion procedures. Nine references, all USSR, 7 since 1940. O one graph.	pressure- pof ob- nomechan- racteris- y and im- ction of polysty- produc-

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Gorina, A. A., Kargin, V. A., Kozlov, P. M., 54-8-2/19 AUTHORS: Kotrelev, V. N. Production of Goods From Fluoroplast-4 (Pererabotka TITLE: ftoroplasta-4 v izdeliya). Investigation of the Preforming Process (Issledovaniye protsessa tabletirovaniya). PERIODICAL: Khimicheskaya Promyshlennost', 1957, Nr 8, pp. 5-9 (USSR) The investigations concerning the detection of processes for ABSTRACT: the production of goods from fluoroplast-4 were started in 1949. Foreign references (references 3-6) and the original variants of the laboratories of L. V. Chereshkewich (NIIPP) and of L. F. Vereshchagin (IOKh AN) were at the disposal of the NIIPM where they were produced. The production method was divided into the following 4 stages: 1) preparation of the pulverulent fluoroplast-4 for preforming: a) thermal treatment of the powder, b) aeration of the powder. 2) Preforming 3) Caking together 4) Cooling of the finished product. In the investigation of the production method the papers of P. P. Balandin Card 1/3

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64-8-2/19

Production of Goods From Fluoroplast-4. Investigation of the Preforming Process

> (reference 9) about the computation of the press process of dry refractory materials as well as the papers about the preforming process in press powders were taken into consideration (reference 10). The purpose of present paper was the detection of the optimum specific pressure in the preforming from the pulverulent fluoroplast-4, as well as the detection of the optimum thermal retardation of the tablets at this pressure. As criteria for the optimum pressures and preforming times the variations of the linear dimensions and of the specific weight of the pressed samples were chosen. It is shown that the preforming from the pulverulent fluoroplast-4 at specific pressures of not below 300 kg/cm² and not above 750 kg/cm² is to be carried out. It is shown that a thermal retardation under pressure is necessary in the preforming. For the investigated dimensions of the unworked pieces a formula

$$T = A \frac{H}{D}$$

Card 2/3 was found. This determined the dependence of the amount

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Production of Coods From Fluoroplast-4. Investigation of the Preforming Process
of the thermal retardation of the height and diameter of the unworked pieces. T - optimum thermal retardation of the unworked pieces of fluoroplast-4 under the preforming pressure, in minutes. A - constant (in the polymers investigated here it amounted to 7, 7 - 9, 1) H- the height of the unworked piece. D - diameter of the unworked piece. There are 4 figures, 2 tables, and 11 references, 2 of which are Slavic.
AVAILABLE: Library of Congress
Gard 3/3

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CIA-RDP86-00513R000825830007-8

'AUTHORS: Lap

Lapshin, V. V., Kozlov, P. M. 30V/64-58-4-6/20

TITLE: The Effect of the Conditions of Casting Under Pressure on the Internal Stress in Workpieces of Polystyrene (Vliyaniye usloviy lit'ya pod davleniyem na vnutrenniye napryazheniya v detalyakh iz polistirola)

PERIODICAL: Khimicheskaya promyshlennost', 1958, Nr 4, pp. 214 - 218 (USSR)

ABSTRACT: The two main types of stresses occurring in casts and determining their physical and mechanical properties are :1.- Mechanical stresses developing by an unequal cooling of the polymer during the formation process and 2.- The orientation stresses forming as a consequence of a change of the molecular form and a fixation of certain molecular configurations in the direction of flow. The former are practically of small importance while the latter can be brought to a minimum by a rational construction of the mold, a corresponding method of casting as well as by a reduction of the residual pressure in the mold during the opening and the taking out of the cast. This paper investigates the influence of the basic parameters of the technological casting process and the influence exerted by some construction elements of the mold

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The Effect of the Conditions of Casting Under Pressure SCV 64-58-4-6/20 on the Internal Stress in Workpieces of Polystyrene

on the formation of stresses, as well as the possibility of reducing and distributing the stresses. A special mold of 12 "sections" was used and the authors worked at different temperatures and waited for the termination of the shrinking process. The dependence of the shrinking on the temperature is represented by an equation; the quantities to be investigated are the casting temperature, the pressure, the effective time of pressure, the mold temperature, the velocity of the motion of the piston and the duration of the casting cycle. From the mentioned experimental results may, among others, be seen that the orientation stress is reduced with a rise of the formation temperature and a shortening of the period of pressure, the influence of the duration of pressure being increased. The same effect was also observed on an increase of the flow velocity of the polymer. The size of the drain channel is of great influence. In the experimental series for the clarification of this influence comparisons were made with the drain channels according to Jones (Ref 7); experiments of experimental shrinking in the direction of flow showed that those changes are not uniform and that the curves

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The Effect of the Conditions of Casting Under Pressure EV/64-58-4-6/20 on the Internal Stress in Workpieces of Polystyrene

are similar to those by N.I.Basov (Ref 3). It was observed that with the increase of the molecular weight in block polystyrene the shrinking increases and the resistance to heat decreases. In order to obtain an impact strength of the cast samples the casting must be carried out at low temperature, at high pressure and longer pressure duration and with big drain openings, as this way an increase of the orientation stresses is achieved. In order to determine the influence of some factors on the tensile stress experiments in solvents were carried out and the dostruction was investigated. It was found that two types of stresses are present, the highly elastic and the mechanical ones. A temperature after-treatment at the highest possible temperature (without deformation) was found to be an effective method for removing stresses. There are 8 figures, 4 tables and 9 references, 5 of which are Soviet.

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CIA-RDP86-00513R000825830007-8

The Effect of the Conditions of Casting Under Pressure 30464-59-4-6/20 on the Internal Stress in Workpieces of Polystyrene

' 1. Styrene polymers--Casting 2. Styrene polymers--Stresses

Card 4/4

APPROVED FOR RELEASE: 06/14/2000

KOZLOV, P., student IV kursa Reentgenographic analysis of deformations in large-crystal aluminum. Sbor.nauch.rab.stud. Nauch.stud.ob-va Kir.un. no.2:51-54 '59. (MIRA 13:7) 1. Fiziko-matematicheskiy fakul'tet Kirgizskogo gosudarstvennogo universiteta. (I-ray crystallography) (Aluminum crystals)

APPROVED FOR RELEASE: 06/14/2000

5(3), 15(8) Authons:	Gorina, A. A., Kargin, V. A., Kozlov, P. M. SOV/64-59-2-9/23			
TITLE:	Preparation of Phtoroplast-4 in Finished Products (Pererabotka ftoroplasta-4 v izdeliya) (Investigations on the Sintering Process of Semifinished Products) (Issledovaniya protsessa spekaniya zagotovok)			
PERIODICAL:	Khimicheskaya promyshlennost', 1959, Nr 2, pp 134-139 (USSR)			
ABSTRACT :	The process of pelleting was discussed in the preceding paper (Ref 1). The investigations of the sintering of semifinished phtoroplast-4 (polytetrafluoroethylene) (PF)-products was carried out in two stages; first, the optimum conditions for the sintering were examined, and second, the mechanism of the process was investigated. Volume- and linear shrinkage are regarded as criteria for the evaluation of the summation processes in sintering. Since the proportion by volume between the crystalline and the amorphous component of the polymer is a function of temperature, corresponding X-ray analyses were made, and it was found that at a temperature of			
Card 1/2	up to 300° no considerable changes in the degree of crystallization are to be observed. Only at 340° the polymer loses its crystal structure (Ref 2). The sintering of semifinished products should			
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Preparation of Phtoroplast-4 in Finished Products SOV/64-59-2-9/23 (Investigations on the Sintering Process of Semifinished Products)

> therefore take place at $375\pm5^{\circ}$. The experiments were made within a large range of pelleting pressure (50-500 kg/cm²) and at sintering temperatures of 340, 360, 380, and 400° at two different heating velocities of the tablets to the sintering temperature, and at three different cooling velocities of the semifinished products after the sintering. The change in the linear dimension and in the density of the sample was examined for the evaluation of the sintering process. The results obtained are graphically represented (Figs 1-6). Optimum pressure in pelleting was determined to be $350-500 \text{ kg/cm}^2$. In the case of small products of (PF) the heating

350-500 kg/cm⁻. In the case of small products of (PF) the heating velocity to the sintering temperature is of no importance, the

optimum temperature range for sintering is $375\pm15^{\circ}$ (lower limit for low thermostability, upper one for highly thermostable polymers). Sintering takes place until the complete clarification of the polymer. There are 6 figures and 9 references, 4 of which are Soviet.

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TITLE:

CIA-RDP86-00513R000825830007-8

36766 rs, s/081/62/000/001/063/067 B119/B101 Trifonova, N. A., Kozlov, P. M. AUTHORS: 1 Glues and pastes for gluing magnetic heads Referativnyy zhuŕnal. Khimiya, no. 1, 1962, 514, abstract PERIODICAL: 1P92 (Tr. Vses. n.-i. in-ta zvukozapisi, no. 8, 1961, 87-94) TEXT: Glues based on epoxy resins were obtained as a result of the development of glues, pastes, and the technology for gluing plates and cores of magnetic heads. Maleic anhydride (for 3KC-2 (EKS-2)) or phenol formaldehyde resin (for $\Im(C - \mathcal{C}(EKS-F))$ were used as hardeners. Quartz sand or marshalite are recommended as fillers for preparing $\mathcal{M}(-1)$ (EPS-1) paste which hardens in the cold with polyethylene polyamines. (EPS-2) paste containing marshalite hardens with maleic anhydride only when heated. The percent content of filler does not affect the strength of pastes; the filler can be added according to the required consistency. EKS-2 and EKS-F glues harden at 140°C after 1 hr at least, EPS-2 and $\exists \exists C - d (EPS-F)$ pastes after 6 hrs. A prolonged hardening time increases the heat resistance of pastes. The glues can be stored for 30 days at Card 1/2

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33172 s/148/61/000/012/006/009 10.7400 4016 E193/E383 AUTHORS: Yakhontov, A.G. and Kozlov P.M. Distribution of the a-phase on the surface of TITLE: fatigue-fracture of stainless steel 1×18H9T (1Kh18N9T) Izvestiya vysshikh uchebnykh zavedeniy Chernaya PERIODICAL: metallurgiya, no. 12, 1961, 114 - 116 Studies of the constitution of alloys in the zone of TEXT: fatigue-fracture can provide valuable information on the mechanism of fracture due to cyclic loading - hence the present investigation carried out on specimens of steel 1Kh18N9T (17.9% Cr), chosen for this purpose because the austenite in this steel is particularly prone to change into α -phase during plastic deformation. Specimens 17 mm in diameter with a notch 2 mm deep and having austenitic structure and a grain size of approximately 5 x 10^{-5} cm were used in tests conducted on a rotating-cantilever-beam-type machine. Each test was run to fracture, which in specimens tested under a stress of 26 28 and 50 kg/mm^2 occurred after 2 050 000; 1 052 000 and 650 000 Card 1/7 (

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E193/E383 reversals, respectively. The surface of the fractured specimens

was then examined by X-ray diffraction. The X-ray patterns showing both $K_{\alpha}(211)$ lines of the α -phase and $K_{\beta}(311)$ and

 K_{α} (220) lines of the γ -phase were obtained for several points

spaced radially at a distance of 1.3 mm from each other. Typical results are reproduced in Fig. 1, where the intensity I , of the X-ray diffraction lines is plotted against the distance (n x 1.3 mm) of the point examined from the circumference of the specimen circles, dots and crosses relating to (211), (311) and (220) lines respectively. The proportion of $\alpha\text{-phase}$ was then calculated from the $I_{(211)}/I_{(220)}$ and

ratios, where I denotes the intensity of the $I_{(211)}/I_{(311)}$ respective lines. The results of these calculations are reproduced in Fig. 2. where the proportion of the α -phase (?) is plotted against the distance from the circumference of the specimen. In discussing the results the authors distinguish between the zone of gradual (fatigue) fracture and the zone of

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final fracture comesponding (b the immediate vicinity of point 7 of Figs. 1 and 2. It will be seen that the proportion of the a-phase increased gradually and reached its maximum of the boundary between these two zones and the following explanation is suggested of this effect. The plastic deformation induced $\gamma \rightarrow \alpha$ deformation can take place only in material subjected to a stress $\sigma_{\widetilde{M}}$, which must be at least slightly higher than the

yield point of a given steel In the initial stages of a fatigue test (conducted under a constant load), the stress remains relatively low until the first fatigue cracks are formed which reduce the effective cross-section area of the specimen and consequently increase the magnitude of stress. The magnitude of the applied stress increases with increasing depth of the crack and so does the degree of plastic deformation which is reflected in an increased proportion of the α -phase formed. The sharp decrease in the intensity of the X-ray diffraction lines in the zone of final fracture and the corresponding decrease in the proportion of the α -phase could be explained only after supplementary studies in which the effect of micro-geometry of

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S/148/61/000/01¹²/006/009 Distribution of the surface of the fracture on the intensity of X-ray diffraction X lines would have to be taken into account There are 2 figures; 1 table and 3 Soviet bloc references. ASSOCIATION. Kirgizskiy gosudarstvennyy universitet (Kirgiz State University) SUBNITTED: October 10 1960

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S/126/62/014/003/006/022 E111/E335

AUTHORS: Kozlov, P.M. and Yakhontov, A.G. TITLE: Influence of the rupture temperature on the structure of fatigue fractures in the steel $1 \times 18 + 9$ (1Kh18N9T) PERIODICAL: Fizika metallov i metallovedeniye, v. 14, no. 3, 1962, 387 - 390 TEXT: The kinetics of the $\gamma \rightarrow \alpha$ transformation in fractures of 1Kh18N9T steel produced by applying alternate strain at high temperatures and the influence of the deformation temperature on the structure of the γ - and α -phases in the fatiguefracture zone were investigated on specimens in which stressconcentration notches, 0.3 mm deep, were produced by electrolytic polishing. Cycles with stresses of 28 kg/mm⁴ were applied at temperatures of 50, 160, 190, 250, 360, $\frac{4}{50}$, 530 and $\frac{6}{610} \pm 15$ °c. Since in the fatigue-fracture zone the phase transformations are localized within a very narrow layer, X-ray structural phase analysis was applied, which enabled the martensite transformation to be followed in the surface layer, $8 - 12 \mu$ thick. The number of cycles to failure fell sharply with increasing temperature up Card 1/3

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to about 250 °C (about 0.8 x 10^5 cycles) and then stayed almost constant. The concentration of the α -phase decreased sharply up to 250 °C in all the sections of the fracture, whilst there was no α -phase at all in the fracture at 450 °C. The temperature of 450 °C evidences that there is a general characteristic in the formation of all the fracture zones. To some extent, this is analogous to the temperature point M_d which characterizes

the stability of austenite during fatigue fracture. The great difference between the points M_d for torsion (60 °C) and for

fatigue fracture (450 °C) evidences that during fracture the γ -lattice is distorted to a greater extent than during torsional deformation. The alpha-phase concentration at the fracture indicates the degree of plastic deformation; the concentration in the pre-fracture zone was the same as in a tensile-fracture zone. Fatigue-fracture was accompanied by refining of the microstructure. The distortion of the gamma-phase was not due to the $\gamma \rightarrow \alpha$ transformation but to processes such as slip and fracture in austenite grains. There are 3 figures and 2 tables.

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ſ	L 42798-66 ENT(m)/ENF(j)/T IJF(c) WW/RM] .
	ACC NRI AR6014358 (A,N) SOURCE CODE: UR/0277/65/000/011/0028/0028	
	AUTHOR: Kozlov, P. M.	
	AUTHOR: Kozlov, P. M.	
	TITLE: <u>Strength</u> of polymer materials	
	SOURCE: Ref. zh. Mashinostroitel'nyye materialy, konstruktsii i raschet detaley mashin. Gidroprivod, Abs. 11.48.241	
	REF SOURCE: Sb. tr. Mosk. vyssh. tekhn. uch-shcha im. N. E. Baumana, v. 4, 1964, 40-	
	44	
	TOPIC TAGS: polymer, stress analysis, creep	
	torio india polymer, Bureas analysis, creap	•
	ABSTRACT: The possibility of utilizing polymer materials under a load in the region	
	of creep is analyzed. It is shown that using polymer materials in the region of creep may be allowed in the case when the calculations of safe strength are based on the	
	allowable deformations and when the length of service for a material is strictly	
	determined. 5 illustrations, 1 table. (Translation of abstract)	
	SUB CODE: 11	
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	Cord 1/1 LC DDC: 678.5:539.4	

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ACC NR: AP7000654	SOURCE CODE: UR/0126/66/022/005/0693/0697		
AUTHOR: Zherdev, A. M.; Kozlov	, P. M.; Samoylenko, Z. A.		
ORG: Kirgiz State University (Kirgizskiy gosuniversitet)			
TITLE: Electron-microscope exa steel fractures	mination and x-ray spectral analysis of 1Kh18N9T		
SOURCE: Fizika metallov i meta	allovedeniye, v. 22, no. 5, 1966, 693-697		
TOPIC TAGS: fatigue strength, surface, electron microscopy, cl	material fracture, mechanical fracture, metal hromium steel, nickel steel		
examined with an electron-micro to determine if there is any ch to testing, specimens were homo found that the fracture surface respective titanium and mangane content of these elements in th had three zones with different titanium content was observed if fracture zones. Orig. art. has			
SUB CODE: 11/ SUBM DATE: 080 Card 1/1	Oct65/ ORIG REF: 010/ OTH REF: 001/ UDC: 669.15-194:539.26		

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USSR / Cone	eral Problems of Pathology. Immunity. U-2	
	U-2	
Abs Jour	: Ref Zhur - Biol., No. 10, 1958, No 46697	
Author Inst Title	 Kozlov, P. S. Stavropol' Scientific Research Institute of Vaccination and Scrology. Phagocytic Leukocyte Activity in the Blood of Work Horses at Hyperimmunization by Diphteria Anatoxin. 	
Crig Pub	: Sb. nauch. tr. Stavropol'sk. ni. in-ta vaktsin i syvorotok, 1957, vyp. 4, 37-42.	
Abstract	: When work horses were immunized by diphteria anatoxin, a weakening in the phagocytic leukocyte activity (PhLA) was observed, together with a growing anatoxin titer. During the period of rest from immunization, PhLA grew. In horses who are subreactive to the toxin, leukocytes are highly active.	
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KOZLOV, P.T.

Use of geophysical methods in oil and gas prospecting in capitalist countries. Geol. nefti i gaza 7 no.7:49-53 Jl '63. (MIRA 16:7)

1. Institut geologii i razrabotki goryuchikh iskopayemykh AN SSSR. (Prospecting--Geophysical methods)

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KOZLOV, P.T., kand. ekonom. nauk

Power expenditures and means for decreasing them in various branches of the petroleum and gas industries. From. energ. 20 no.2:6-10 '65. (MIRA 18:4)

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YENIKEYEV, P.N.; KOZLOV, P.T.; YAVKIN, P.Ye.

Oil and gas resources of Central Asis and prospects for their development. Geol.nefti i gaza 9 no.2:1-5 F ¹65.

(MIRA 18:4)

1. Gosudarstvennyy geologicheskiy komitet SSSR, Vsesoyuznyy zaochnyy politekhnicheskiy institut i Vsesoyuznyy nauchnoissledovatel'skiy geologorazvedochnyy neftyanoy institut.

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KOZLOV, P.V.; DUGINA, N.A., tekhnicheskiy redaktor.



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ANDELEDOY, F.A.; KOLTUNCY, M.A.; KOZLOV, P.V.

Creep of crystalline polymers. Vest. Mosk. un. Ser. 2: Khim. 20 no. 5:89-92 S-0 '65 (NIRA 18:12)

1. Kafedra vysokomolekulyarnykh soyedineniy Moskovskogo gosydarstvennogo universiteta.Submitted Dec. 22, 1964.

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