OSIPOV, V.

An important problem. Avt.transp. 37 no.4:49 Ap '59.
(MIRA 12:6)
(Service stations--Equipment and supplies)

OSIPOV, V., bibliotekoved.

Home library. Mast. ugl. 8 no.11:30-31 N '59. (MIRA 13:2)

(Libraries, Private)

OSIPOV, V., inzh.; TOL TIKOV, V., inzh.

New grinding machine. Mekh. stroi. [illegible] no.10:[illegible] O [illegible].
(MIRA [illegible])

APPROVED FOR RELEASE: Wednesday, June 21, 2000 CIA-RDP86-00513R00123

AUTHOR: Gorin, G. SOV/4-58-11-20/31

TITLE: In the Diamond Region (V almaznom kraye)

PERIODICAL: Znaniye - sila, 1958, Nr 11, p 32 (USSR)

ABSTRACT: This is a review of Valeriy Osipov's book "V almaznom kraye" describing the prospecting work carried out by Professor Odintsov in the Yakut ASSR, where diamond deposits were recently found.

Card 1/1

OSIPOV, V.

BOZHENKO, A.; OSIPOV, V.

[redacted]

Who commands the American Air Force? Vest.Vozd.Fl.34 no.11: 83-91 N '51. (MLRA 8:3)
(United States--Air Force)

GIPOV, V.

[illegible]-Trust r Stat[illegible]

Improved utilization of machines, MTS [illegible], no. [illegible], 1954

Monthly List of Russian Accessions, Library of Congress, June [illegible], [illegible].

APPROVED FOR RELEASE: Wednesday, June 21, 2000 CIA-RDP86-00513R001238

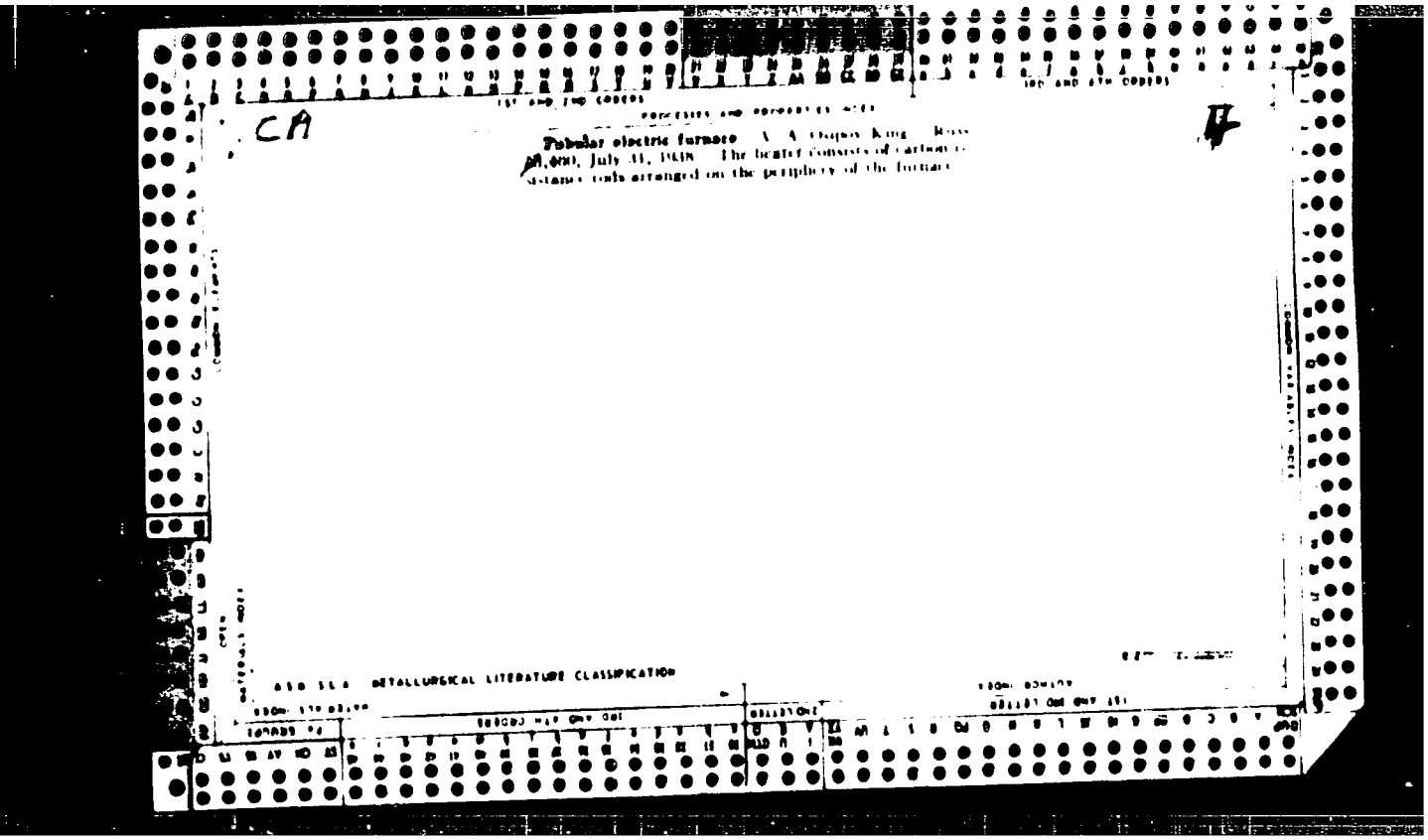
BC

PROCESSES AND PROPERTIES INDEX

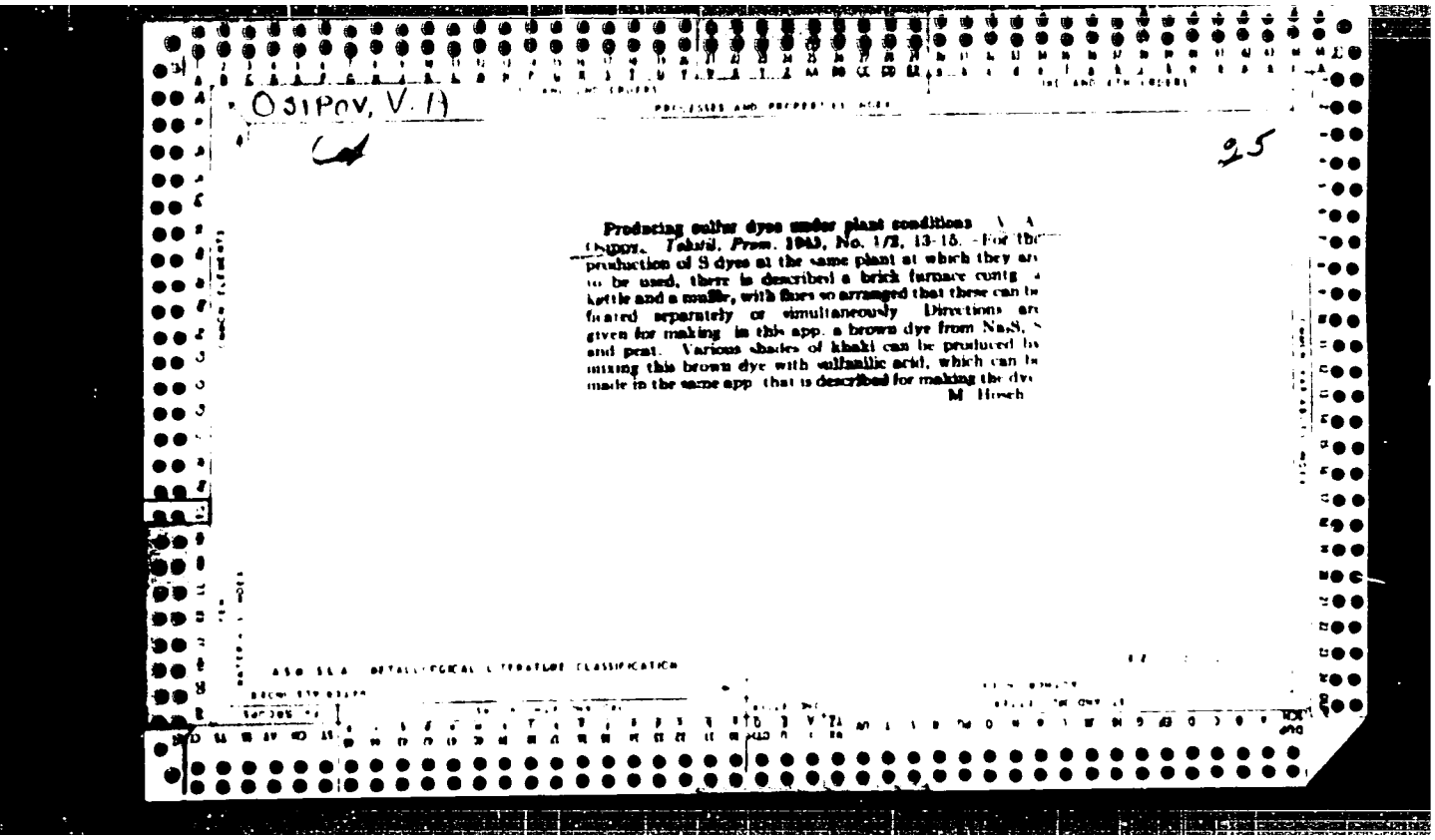
Polarisation prisms. V. A. Ostrov-Kino (Compt. rend. Acad. Sci. U.R.S.S., 1936, 4, 53—56). The two calcite prisms of a double-image prism are joined by optical contact with a thin, plane-parallel, central plate of optical glass or fused quartz.

O. D. S.

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION



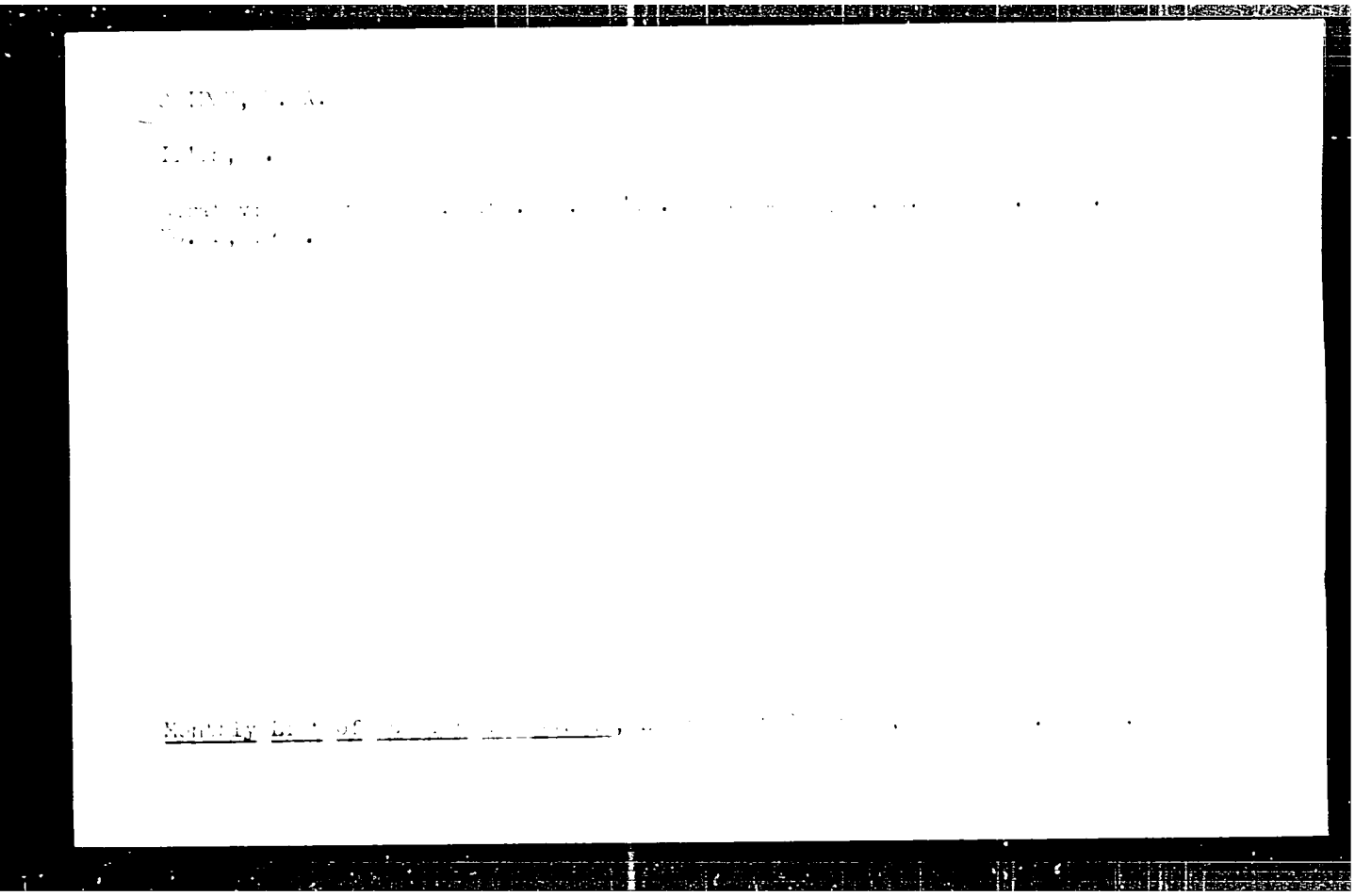
APPROVED FOR RELEASE: Wednesday, June 21, 2000 CIA-RDP86-00513R001238



OSIPOV, V. A.

25

Producing sulfur dyes under plant conditions. V. A. Osipov. *Tekstil. Prom.* 1943, No. 1/2, 13-15.—For the production of S dyes at the same plant at which they are to be used, there is described a brick furnace containing a kettle and a muffle, with flues so arranged that these can be heated separately or simultaneously. Directions are given for making in this app. a brown dye from Na_2S, S and peat. Various shades of khaki can be produced by mixing this brown dye with sulfanilic acid, which can be made in the same app. that is described for making the dye.
M. Hirsch



OSIPOV, V.A., assistent

Precast reinforced concrete large-block reticular domes and shell roofs. Shor.trud.VISI no.4:52-58 '58. (MIRA 12:8)
(Roofs, Shell) (Domes) (Precast concrete construction)

MUSAKIN, A.P.; VLADIMIROVA, T.M.; IN'KOVA, Ye.N.; OSIPOV, V.A.

Some problems in the synthesis of tagged compounds. Radiokhimiia 1 no.6:734-737 '59. (MIRA 13:4)
(Carbon--Isotopes) (Potassium cyanide)
(Citric acid)

ACCESSION NR: AP4009656 S/0147/63/000/004/0157/0165

AUTHOR: Osipov, V. A.

TITLE: Machining support framework members for wing and tail assemblies on automated equipment with programmed guidance

SOURCE: IVUZ. Aviatsionnaya tekhnika, no. 4, 1963, 157-165

TOPIC TAGS: airplane part manufacture, wing support framework, tail assembly support framework, automated milling equipment, automated machine programmed guidance, milling tool trajectory, automated equipment efficiency study, automatic control, programmed guidance

ABSTRACT: Calculations of milling tool trajectory and resultant approximation errors are considered for several patterns of relative motion of the tool and machined part (see Fig. 2 in the Enclosure) during the process of machining support framework members (see Fig. 1 in the Enclosure) for wing and tail assemblies. Three cases of approximation are analyzed. The results obtained are said to allow calculation of tool trajectories for three examples of forming linear non-expanded wing and tail assembly surfaces, enabling one to compile calculation algorithms for programming the milling of framework

Card 1/2

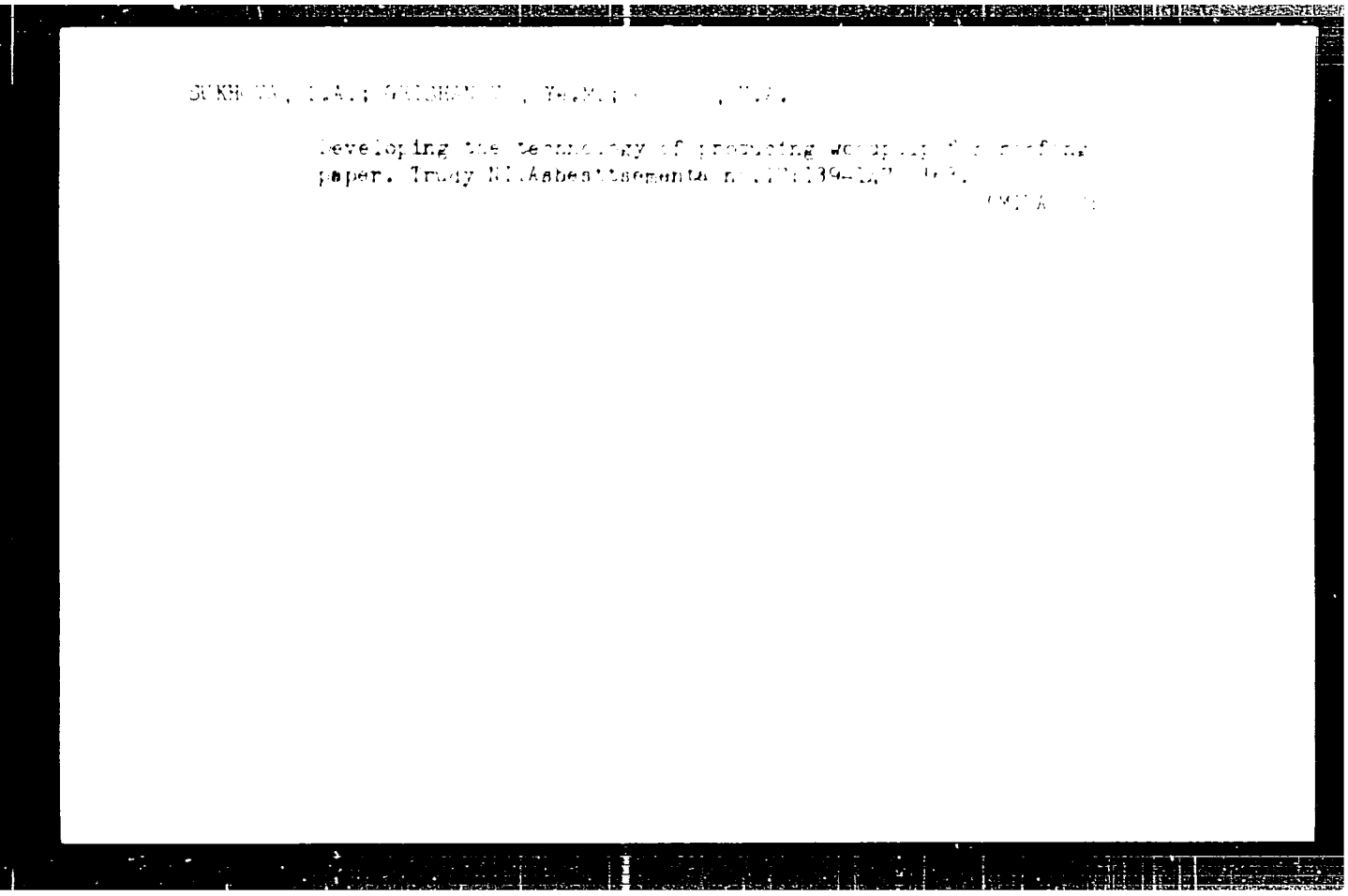
ACCESSION NR: AP4009656

parts on automated equipment. Error factors can be calculated for the machining of these surfaces on coordinated banks of three, four and five machines. A relationship can be established between the magnitudes of the machining process error and the geometrical characteristics of the surface studied (see Figs. 3 and 4 in the Enclosure). Finally, an efficiency study is possible in relation to the use of equipment with programmed guidance. Orig. art. has: 16 formulas, 9 graphs.

ASSOCIATION: None

SUBMITTED: 05Mar63	DATE ACQ: 12Feb64	ENCL: 04
SUB CODE: AE, IE	NO REF SOV: 005	OTHER: 000

Card 2/2



L 25266-65 EWP(e)/EPA(s)-2/EWT(m)/EPF(c)/EPR/EWP(j)/T/EWP(b) Pc-4/Pq-4/Pr-4/
Ps-4 WW/RM/WH

ACCESSION NR: AT5000536 S/3078/64/027/000/0054/0062

AUTHOR: Osipov, V.A.

TITLE: Methods for preliminary size reduction of fiberglass press materials and ways of setting up machines to make tablets from them

SOURCE: Moscow. Institut khimicheskogo mashinostroyeniya. Trudy, v. 27, 1964. Mashiny dlya pererabotki polimernykh materialov (Machinery for the processing of polymeric materials), 54-62

TOPIC TAGS: plastic working, fiberglass pressing, fiberglass tablet, tabletting machine, press material, fiberglass extrusion, phenolformaldehyde resin, plastic mechanical property

ABSTRACT: Extending research in the field of presses for the production of tablets of fibrous material, the author studied the effect of certain parameters of the process on the physicomechanical properties of the product, especially those which were not worsened in the process. Fiberglass AG-4V, prepared from non-oriented glass thread 9-15μ in diameter conjunction with modified phenolformaldehyde resin, and fiberglass AG-4S, in the form of unbroken strips with an initial moisture content of 4.8%, were used in the experiments, and each experimental point was verified by from 3 to 5 tests. Fiberglass AG-4V was

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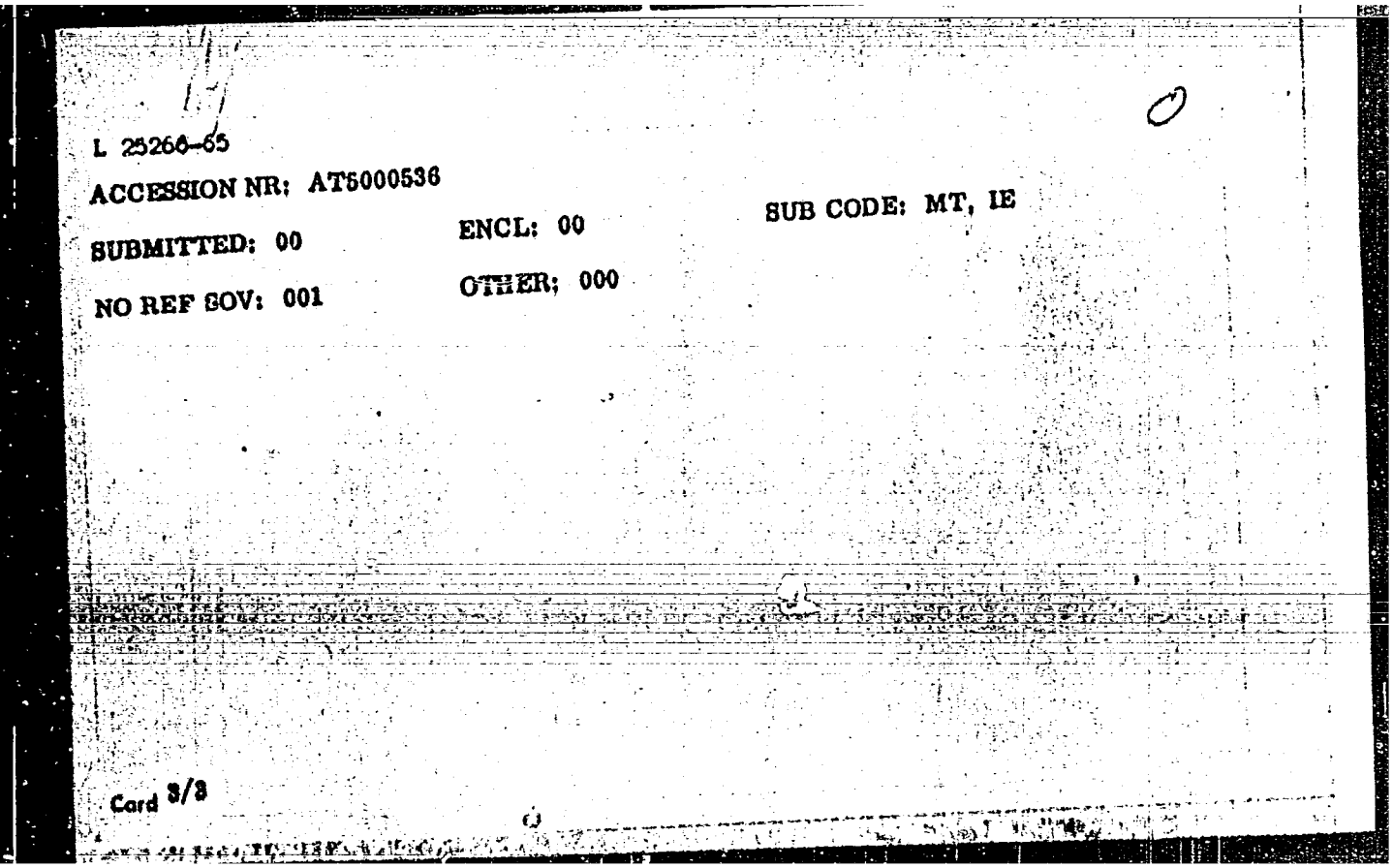
L 25266-65

ACCESSION NR: AT5000546

extruded from a press-form 100 mm in diameter through an opening 16 mm in diameter after heating to 120C. Samples of each run were tested for physicomechanical properties. Threefold extrusion of the material, with a resultant increase in density and dry weight from 0.05 to 0.75 and 0.2 g/cm^3, respectively, decreased the bending strength from 2000 to 1300 kg/cm^2 and the specific impact toughness from 70 to 27 kg-cm/cm^2. Grinding fiberglass AG-4S into pieces 5-10mm in diameter decreased the strength by 80% and the specific impact toughness by 90% in comparison with the original product. A dependence of the mechanical properties on the length of uncut press material was determined. Thus, a reduction in length from 50 to 5 mm decreased the bending strength from 2000 to 1500 kg/cm^2 and the specific impact toughness from 70 to 35-37 kg-cm/cm^2. The tabletting of fiberglass should involve cutting to length without decreasing the strength, weighing and multistage pressing. The authors suggest a horizontally contructed press with devices for weight control and preliminary size reduction included. "The extrusion of the fiberglass was carried out at the Karacharovskiy zavod plastmass (Karacharovsk plastics factory); tablet making was studied in problem laboratory No. 4 of MIKhMa, together with laboratory No. 24 of NIIPM." Orig. art. has: 8 figures.

ASSOCIATION: Institut Khimicheskogo mashinostroyeniya, Moscow (Chemical machine building institute)

Card 2/3



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ACCESSION NR: AT5000536

SUBMITTED: 00 ENCL: 00 SUB CODE: MT, IE

NO REF SOV: 001 OTHER: 000

Card 3/3

ACCESSION NR: AP4033053 S/0147/64/000/001/0161/0169

AUTHOR: Osipov, V. A.

TITLE: Calculation of the controlling coordinates of points on the frame and ruled aircraft surfaces

SOURCE: IVUZ. Aviatsionnaya tekhnika, no. 1, 1964, 161-169

TOPIC TAGS: drilling equipment, countersink drilling equipment, frame surface, ruled surface, controlled coordinate, coordinate calculation, aircraft design, program control

ABSTRACT: The author notes that in recent times countersink-drilling equipment with programmed control has been developed for use in finishing longitudinal and transverse welded joints in panels of single and double curvature. In order that a program calculation algorithm can be written for the finishing of these joints, working formulas are required to compute the travel of the movable elements of the equipment according to the base data of theoretical and working drawings. The author has briefly described a method for solving the fundamental problems, as well as the derivation of the equations and formulas with allowance for the specific character of the assigned axes of the assemblies and equipment. Following the terminology of Kotov (I. I. Kotov. Graficheskiye sposoby* zadaniya i

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ACCESSION NR: AP4033053

postroyeniya tekhnicheskikh form poverkhnostey. Aftoreferat dokt. diss., g. Tbilisi, 1961), the author defines as a frame surface a surface which is given by a set of lines and points belonging to it. The definition itself indicates that a frame surface is given discretely; this is the reason for the widespread employment of interpolation methods for the approximation of the plane and spatial contour lines of frame surfaces and in the solution of metric problems; for example, restoration of the normal to the surface at an arbitrary point. The case actually considered is one of the most commonly encountered engineering problems. It is formulated as follows: Let a frame surface be given by a set of spatial (f^1, f^i, f^{n-1}) and plane (f^0, f^n) curves, related to a cartesian system of coordinates OXYZ.

$$f^1 = f(X, Y, Z),$$
$$f^i = \varphi(X, Y, Z), \qquad (1)$$
$$f^{n-1} = s(X, Y, Z).$$

Card 2/4

ACCESSION NR: AP4033053

The problem is attacked and solved with an eye to further algorithms describing the process of computing the machining program of the section. Once derived, the solution is considered, by way of example, in connection with the cylindrical frame surface of the tail section of the fuselage of the IL-18 aircraft. Tables are given which contain the base data for the solution of the problem, which establish the necessary quantity of controlled coordinates for restoration of the normal to the surface in question at an arbitrary point. Ruled non-developable surfaces, used as external wing and empennage contours, are given by two contours of basic ribs and a kinematic generatrix, representing a straight line of equal percentage. The problem posed here is similar to the one considered above; namely to establish the required number of controlled coordinates in order to restore the normal to the surface in question at an arbitrary point. The study carried out by the author makes it possible, therefore, to obtain working formulas for the compilation of an algorithm for the machining program of an arbitrary plane contour on frame and ruled surfaces or to set the tool at an arbitrary point (control of the functional system of the tool or lathe), and to derive working formulas for the compilation of an algorithm for a program to control the positional system of the tool, which will provide for setting the instrument at the normal to the surface under consideration at an arbitrary point. Orig. art. has: 3 tables, 7 figures and 14 formulas.

Card 3/4

ACCESSION NR: AP4033053

ASSOCIATION: None

SUBMITTED: 05Mar63	DATE ACQ: 11May64	ENCL: 00
SUB CODE: AC, IE	NO REF SOV: 002	OTHER: 000

Card 4/4

ACCESSION NR: AP4014221 S/0075/64/019/002/0189/0194

AUTHORS: Gromov, L.A.; Osipov, V.A.

TITLE: Gas volumetric method for determining metallic zinc in zinc sulfide

SOURCE: Zhurnal analiticheskoy khimii, v. 19, no. 2, 1964, 189-194

TOPIC TAGS: zinc, metallic zinc determination, gas volumetric analysis, zinc sulfide, quantitative analysis, Zn sup 65 labelling

ABSTRACT: A method for determining zinc metal in zinc sulfide based on measuring in a vacuum apparatus the amount of hydrogen displaced with zinc on the dissolution of the zinc sulfide in hydrochloric acid is described (fig. 1). The method was tested on metallic zinc labeled with Zn^{65}. By this method not less than 90% of the zinc in zinc sulfide can be determined with an accuracy of 1×10^{-5} %. The content of zinc metal in zinc sulfide depends on preparation of the sample, i.e., on the temperature at atmospheric conditions of

Card 1/2

ACCESSION NR: AP4014221

the preliminary zinc sulfide treatment and on the time and temperature of calcining. Orig. art. has: 3 figures, 1 table and 1 equation.

ASSOCIATION: Leningradskiy tekhnologicheskiy institut im. Lensoveta (Leningrad Technological Institute)

SUBMITTED: 09Jan63 DATE ACQ: 12Mar64 ENCL: 02

SUB CODE: CH NO REF SOV: 006 OTHER: 005

Card 2/4

L 54718-65 EWT(d) IJP(c) UR/0372/65/000/004/V025/V025
ACCESSION NR: AR5014011 519.2:62

SOURCE: Ref. zh. Kibernetika, Svodnyy tom, Abs. 4V136

AUTHOR: Kondrashov, V.A.; Makarov, S.V.; Osipov, V.A.; Filatov, A.V.

TITLE: A logically-probabilistic method of calculating the reliability of marine power plants

CITED SOURCE: Sb. Vychisl. sistemy. Vyp. 13. Novosibirsk, 1964, 45-57

TOPIC TAGS: marine power plant, reliability analysis, logically probabilistic procedure, functionally equivalent program

TRANSLATION: The complexity of calculating the reliability of marine power plants operating under variable loads is attributable to the impracticality of representing a marine power plant layout in the form of a combination of successively-parallel couplings of its elements. The authors propose the use of a logically-probabilistic method employed in analysis of computer programs. The functional interrelation of elements of a marine power plant is written in the form of an equivalent logical program consisting of

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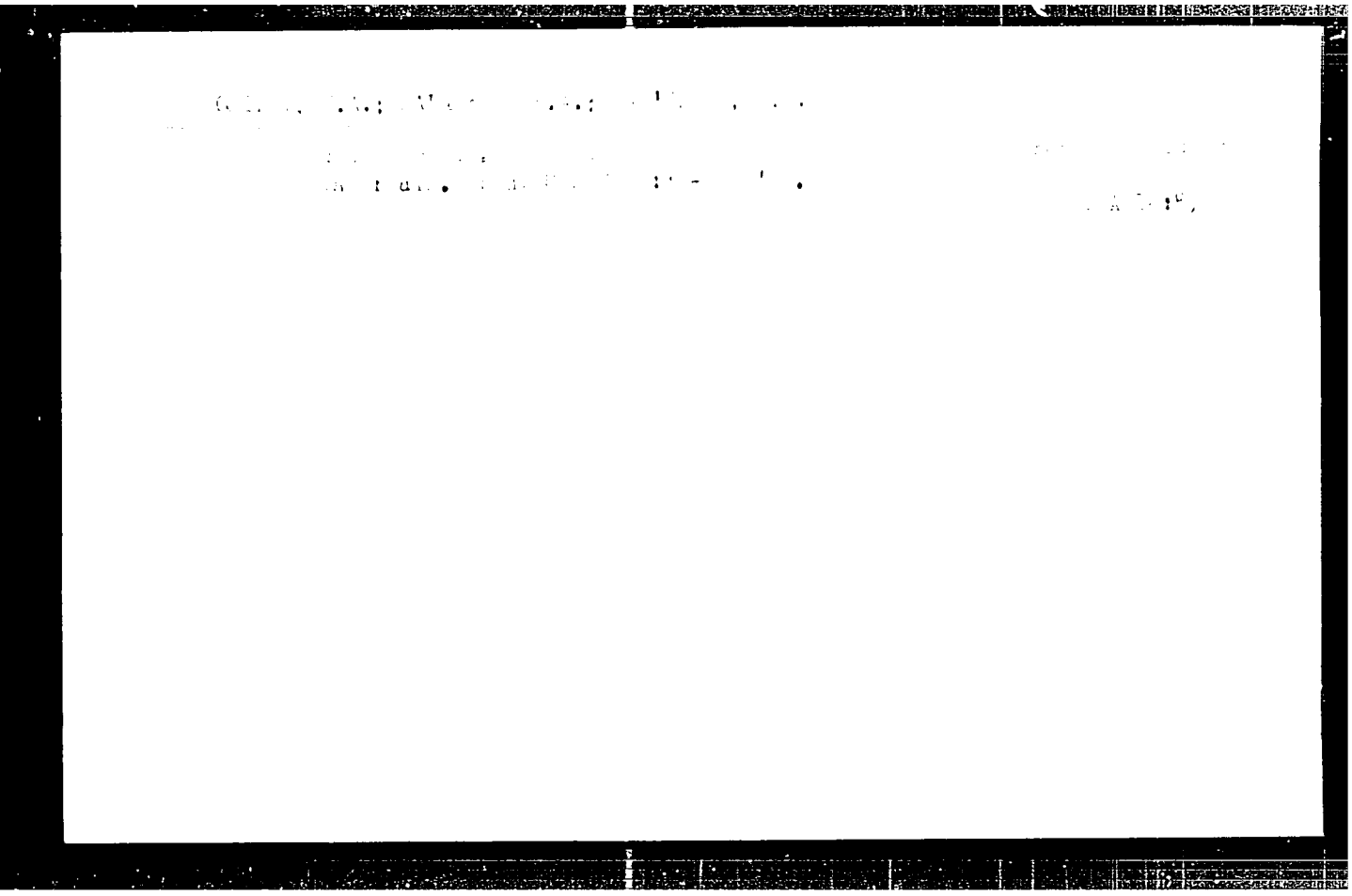
L 54718-65
ACCESSION NR: AR5014011

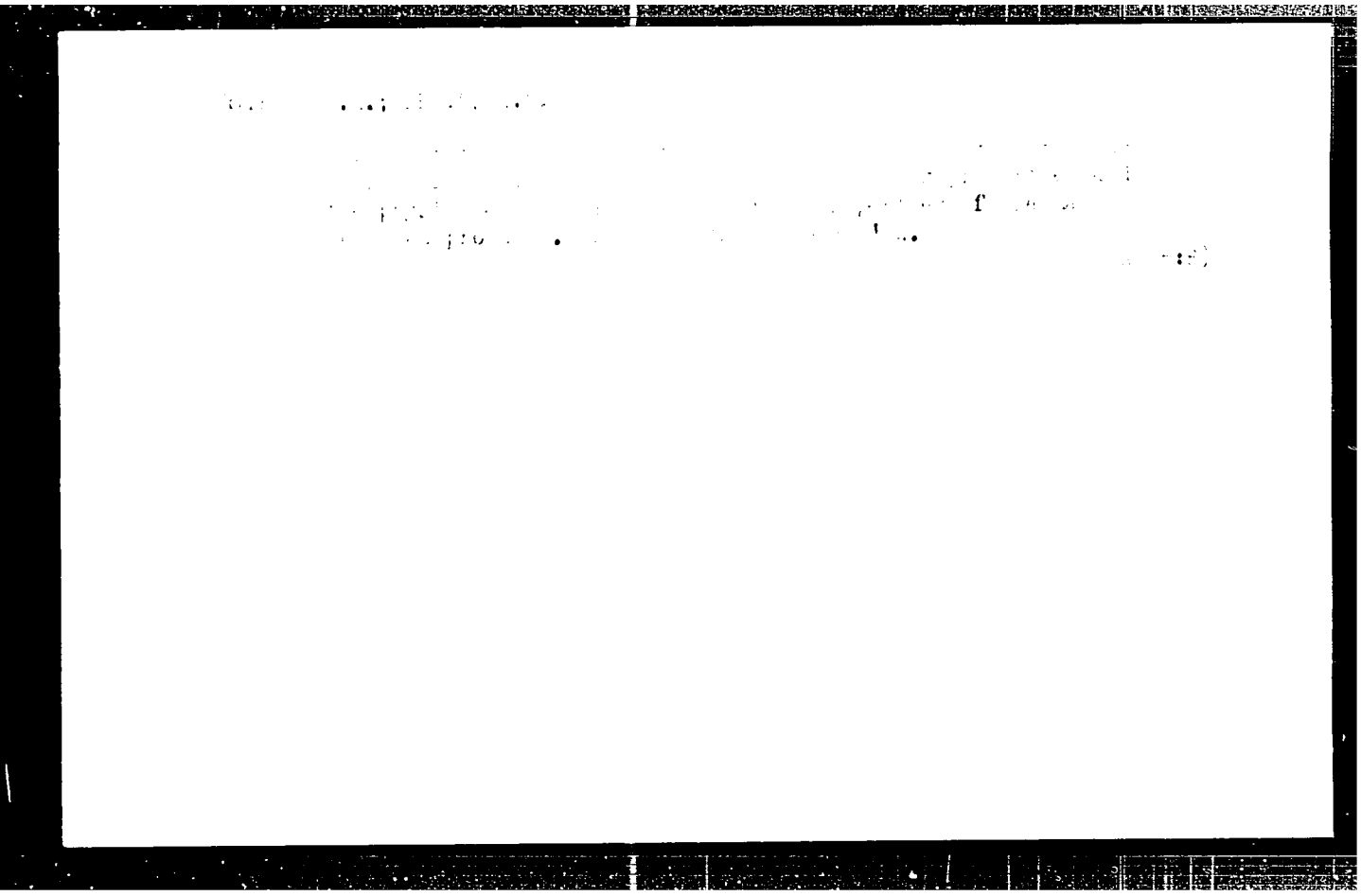
0

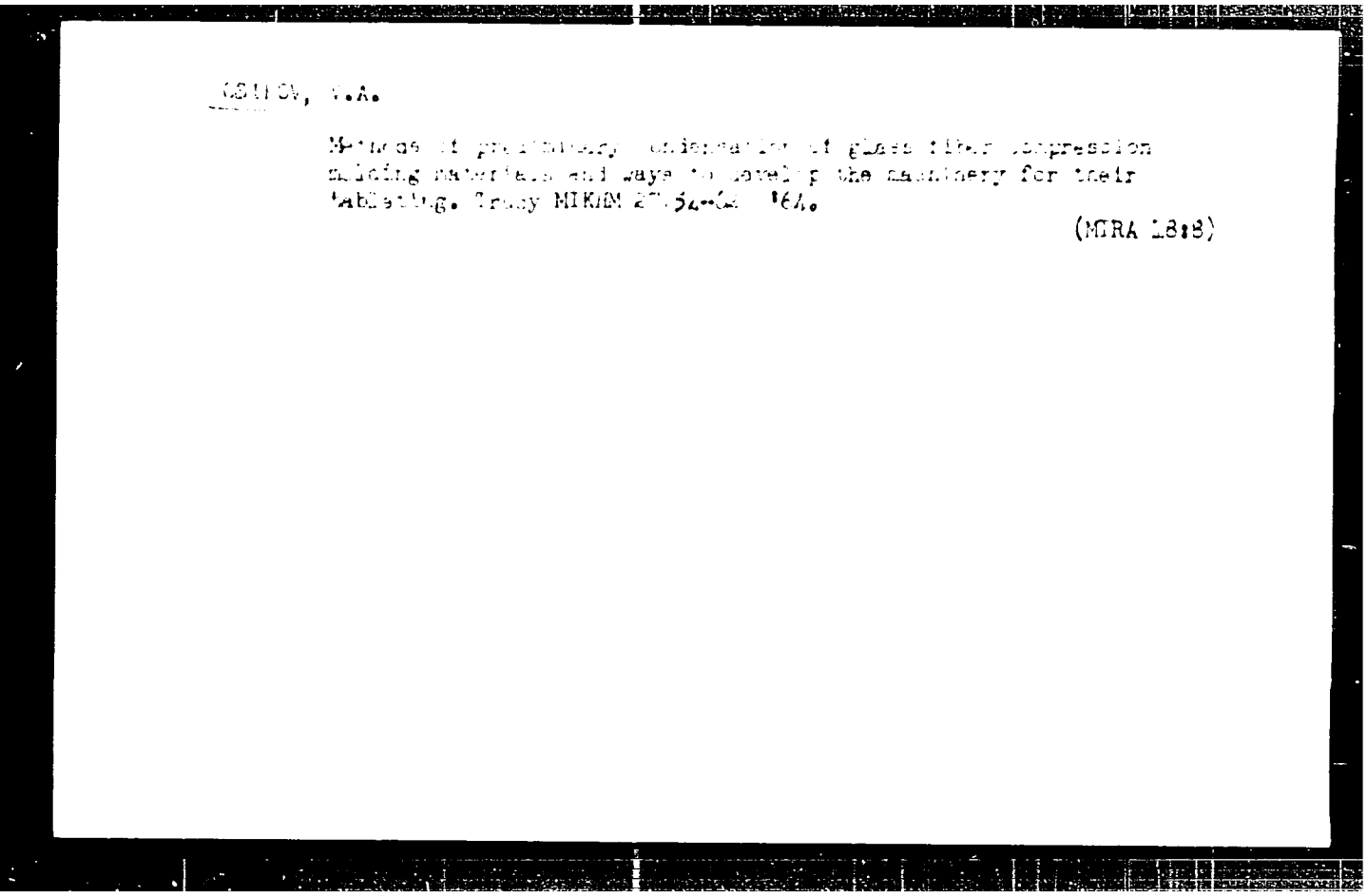
conjunctions, disjunctions and negations. The proper operating condition of an element is designated by one, the improper condition by zero, and methods of probability calculation of single-cycle layouts are then employed. A relationship is established between local (probabilities of proper operation of elements during some cycle) and integral (i.e. the average frequency of failure λ) characteristics of reliability. The proposed procedure makes it possible to obtain quantitative evaluations of the structural reliability of a marine power plant at various operating conditions in relation to different functionally equivalent programs. The program presenting optimum reliability is then selected. G. Yakobson

SUB CODE: PR, MA ENCL: 00

Card 2/2



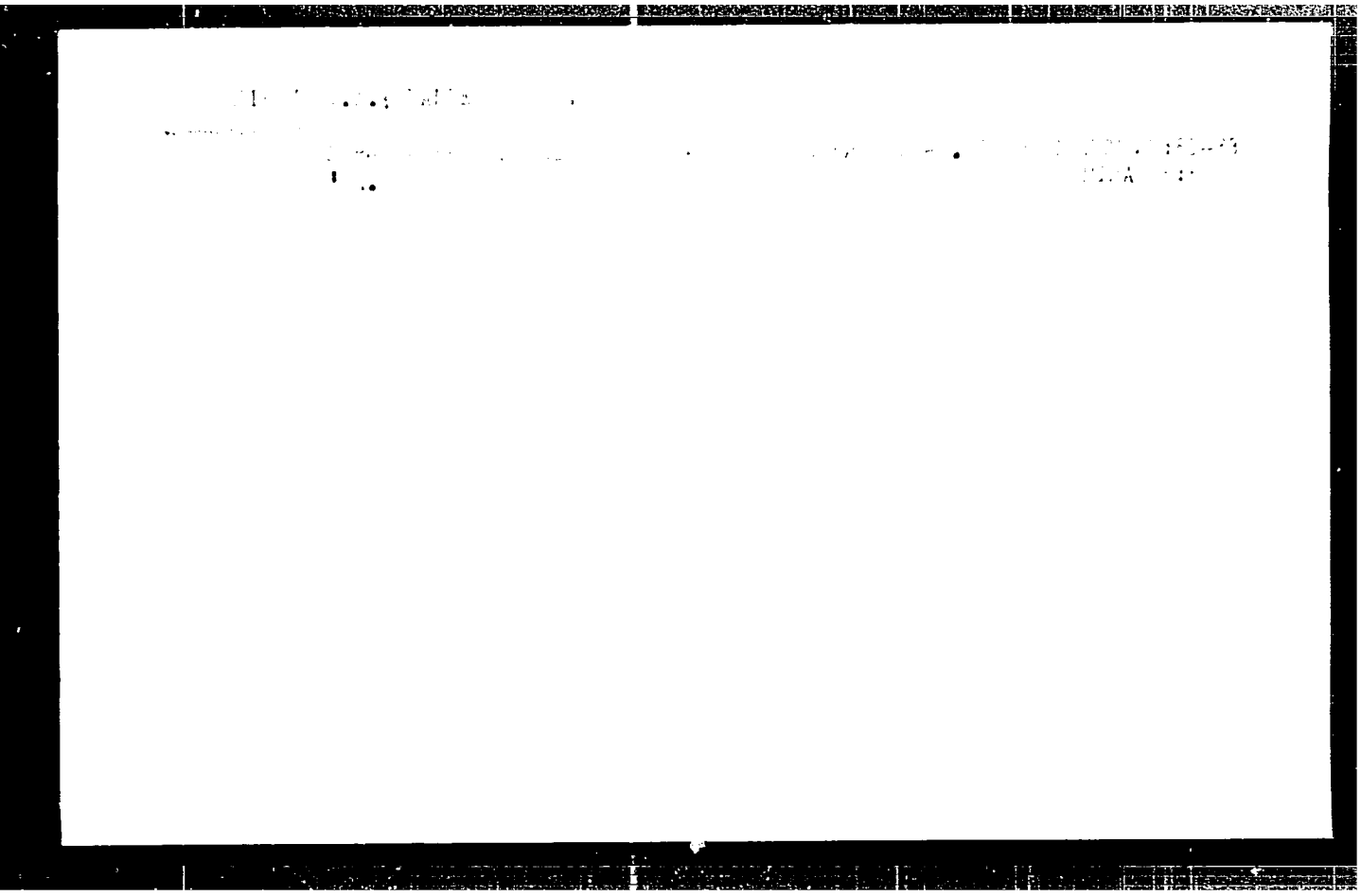




[illegible]SHKOV, V.A.

[illegible] of preliminary [illegible] of glass fiber compression molding materials and ways to develop the machinery for their [illegible]. Trudy MIKHM [illegible] '64.

(MIRA 18:8)



APPROVED FOR RELEASE: Wednesday, June 21, 2000 CIA-RDP86-00513R001238

L 40792-65 EWT(d) IJP(c)
ACCESSION NR: AP5008555 S/0286/65/000/006/0064/0065

7
B

AUTHOR: Obirov, V. A.

TITLE: A mathematical instrument. Class 42, No. 169262

SOURCE: Byulleten' izobreteniy i tovarnykh znakov, no. 6, 1965, 64-65

TOPIC TAGS: mathematical instrument 16

ABSTRACT: This Author Certificate presents a mathematical instrument including a cutting wheel, arm, printing arrangement, and outlining device. This instrument may be used for: 1) constructing evolutes of formed trajectories; 2) determining the center and radius of curvature of any plane curve; 3) discrete constructing of curves equidistant and equitangential to a reference curve. The instrument is provided with two arms rigidly joined perpendicular to one another, a connecting

joined,by means of two swivel-coupled slide bars, to the [illegible]

Card 1/3

L 40792-65
ACCESSION NR: AP5008555

that it is able to slide. The medians of the fixed and turning derivators respectively coincide with the axis of the second arm and the connecting link. The writing apparatus is fastened to the center of the fixed derivator, and the outlining device is fastened to the center of the turning derivator. Orig. art. has: 1 figure.

ASSOCIATION: none

SUBMITTED: 29Nov63 ENCL: 01 SUB CODE: MA

NO REF SOV: 000 OTHER: 000

Card 2/3

L 40792-65
ACCESSION NR: AP5008555 ENCLOSURE: 01

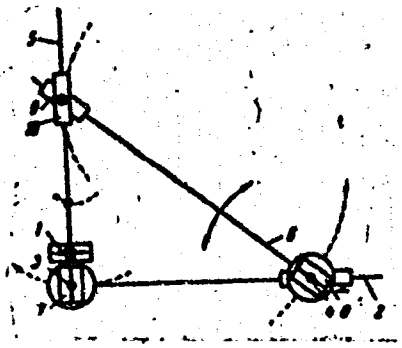


Fig. 1.

1- cutting wheel; 2- first arm; 3- tracing attachment; 4- outlining device; 5- second arm; 6- connecting link; 7 and 8- derivators; 9 and 10- swivel-coupled slide bars

Card 3/3

OSIPOV, V.B.

HIGH-INTENSITY Co^{60} GAMMA-RAY SOURCE FOR STUDIES IN RADIATION CHEMISTRY. (Presented at the International Conference on Radioisotopes in Scientific Research, Sept. 9-20, 1957 at Paris. No. UNESCO/NS/RIC/20. A. Kh. Breger, V. A. Belinsky, V. L. Karpov, B. D. Prokudin, and V. B. Osipov. London, Pergamon Press, Ltd., 1957. 12p.

A Co^{60} gamma ray source has been developed and built, which is equal to basic present-day standards of radiation chemistry research. 'K-20000' source is a hollow cylinder (height 250 mm, outside diameter 140 mm, inside diameter 68 mm) containing 56 Co^{60} preparations with a total activity of [illegible] g. equiv. of radium. The source was assembled by means of special devices employing no water shielding. Irradiation is effected in the working chamber (~ $1 m^3$) into which the source is introduced with the help of remote control mechanism. The chamber is surrounded with concrete walls 1.5 to 2m. Access into the chamber is gained through a labyrinth. Mechanisms [illegible] for safe elimination of possible remote con-

source is kept in a mobile lead container.

Osipov, V. B.

PHASE I BOOK EXPLOITATION SOV/1297

Vsesoyuznaya nauchno-tekhnicheskaya konferentsiya po primeneniyu radioaktivnykh i stabil'nykh izotopov i izlucheniy v narodnom khozyaystve i nauke, Moscow, 1957

Polucheniye izotopov. Moshchnyye gamma-ustanovki. Radiometriya i dozimetriya; trudy konferentsii... (Isotope Production. High-energy Gamma-Radiation Facilities. Radiometry and Dosimetry; Transactions of the All-Union Conference on the Use of Radioactive and Stable Isotopes and Radiation in the National Economy and Science) Moscow, Izd-vo AN SSSR, 1958. 293 p. 5,000 copies printed.

Sponsoring Agency: Akademiya nauk SSSR; Glavnoye upravleniye po ispol'zovaniyu atomnoy energii SSSR.

Editorial Board: Frolov, Yu.S (Resp. Ed.), Zhavoronkov, N.M. (Deputy Resp. Ed.), Aglintsev, K.K., Alekseyev, B.A., Bochkarev, V.V., Leshchinskiy, N.I., Malkov, T.P., Sinitsyn, V.I., and Popova, G.L. (Secretary); Tech. Ed.: Novichkov, N.D.

PURPOSE: This collection is published for scientists, technologists, persons engaged in medicine or medical research, and others concerned with the production and/or use of radioactive and stable isotopes and radiation.

COVERAGE: Thirty-eight reports are included in this collection under three main subject divisions: 1) production of isotopes 2) high-energy gamma-radiation facilities, and 3) radiometry and dosimetry.

TABLE OF CONTENTS:

PART I. PRODUCTION OF ISOTOPES

This report is a general survey of production methods, apparatus, raw materials, applications, investigations and future prospects for radio isotopes in the Soviet Union.

Card 2/12

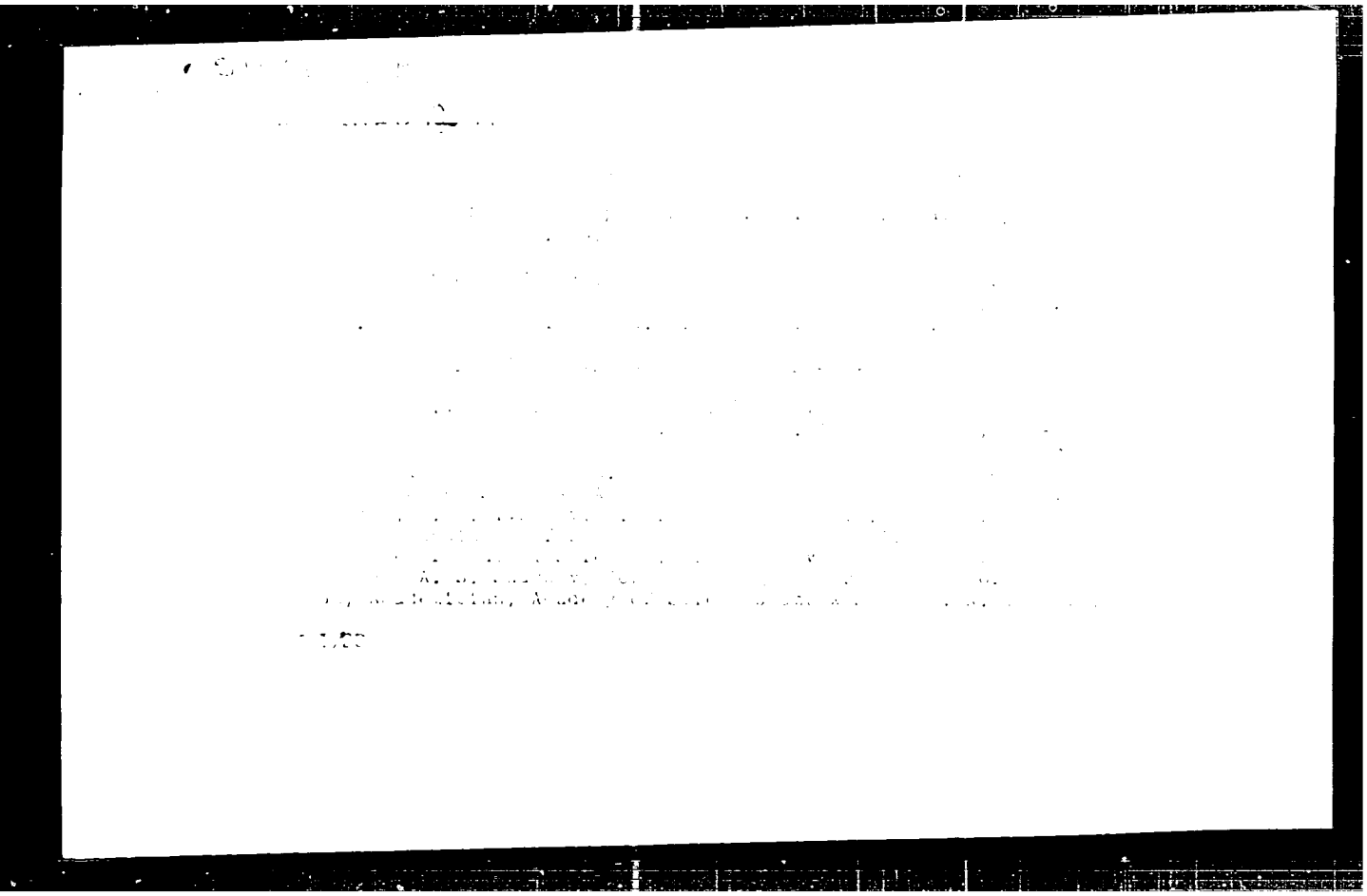
A K-20000 Co^{60} gamma-radiation source, cited as the most powerful in the world according to available data, is described and basic parameters tabulated. The unit is provided with a control panel and a system of periodic observation and is capable of 1200 r sec dosage per 0.4 liters and ~100 r/sec per 100 liters volume. Working chamber capacity is ~300 liters. The source, comprising 56 standard Co^{60} preparations, the authors state, is safe for attending personnel owing to a "dry" method especially developed for this unit

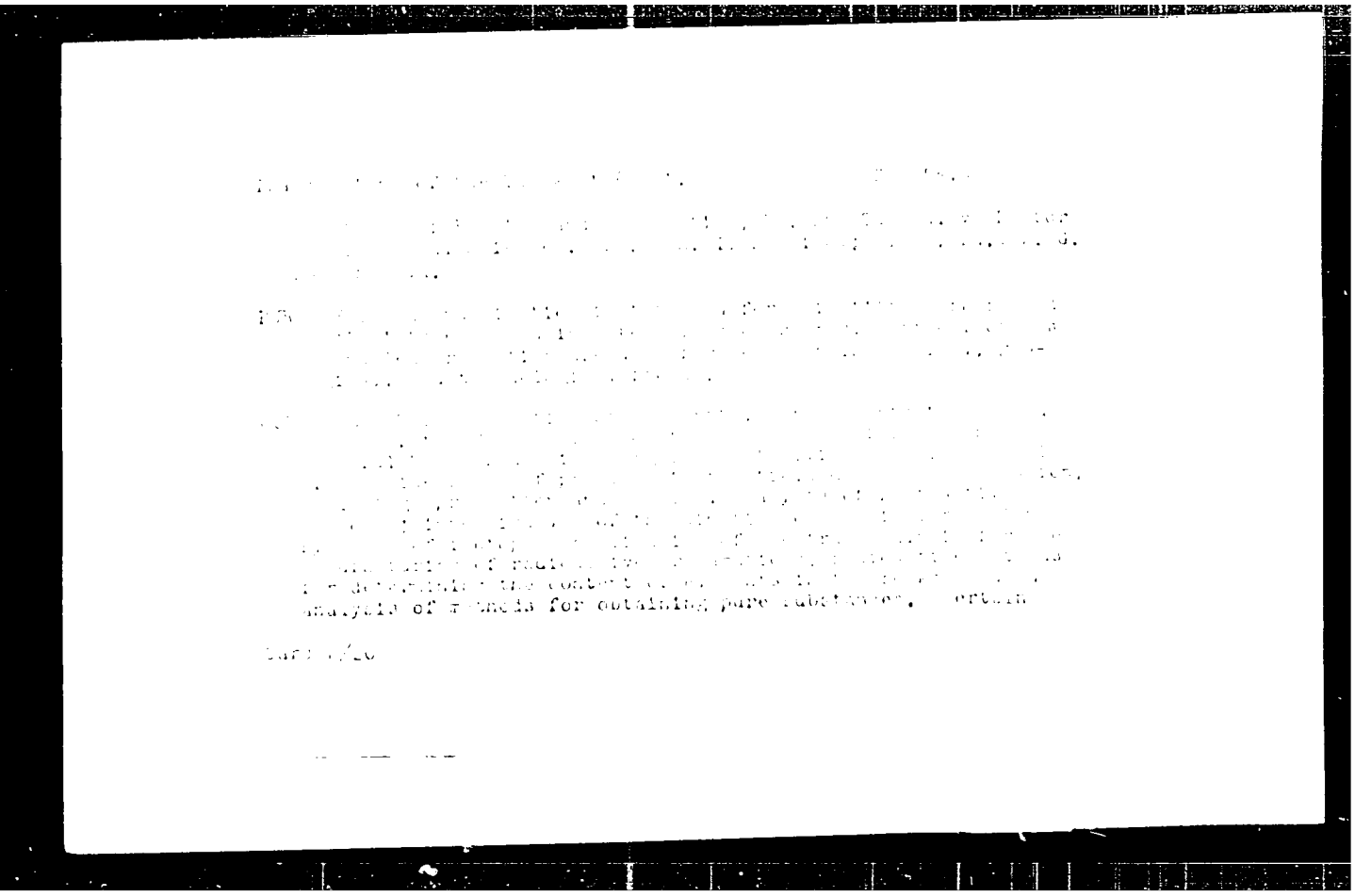
Card 8/12

BREGER, A.Kh.; Prinimali uchastiye: KARPOV, V.L., kand.khim.nauk; BELYNSKIY, V.A.; OSIPOV, V.B., PROKUDIN, S.D.; TYURIKOV, G.S., kand.khim.nauk; GOL'DIN, V.A.; RYABUKHIN, Yu.S.; KOROLEV, G.N.; AFONIN, V.P.; POKROVSKIY, V.S.; KULAKOV, S.I.; LEKAREV, P.V.; FEDOROVA, T.P.; KOROTKOVA, M.A.; KHARLAMOV, M.T.; NIKOLENKO, G.D.; LOPUKHIN, A.F.; YEVDOKUNIN, T.F.; KASATKIN, V.M.; RATOV, A.V.

Nuclear radiation sources for radiational-chemical studies. Probl.fiz.khim. no.1:61-72 '58. (MIRA 15:11)

1. Nauchno-issledovatel'skiy fiziko-khimicheskiy institut im. Karpova.
(Radiochemistry) (Radioisotopes)





[illegible] of the [illegible] (Cont.) SOV/[illegible]

[illegible] used, such as [illegible] [illegible]tors, [illegible], [illegible] and high-[illegible] [illegible]. [illegible] [illegible] are [illegible]. References follow individual articles.

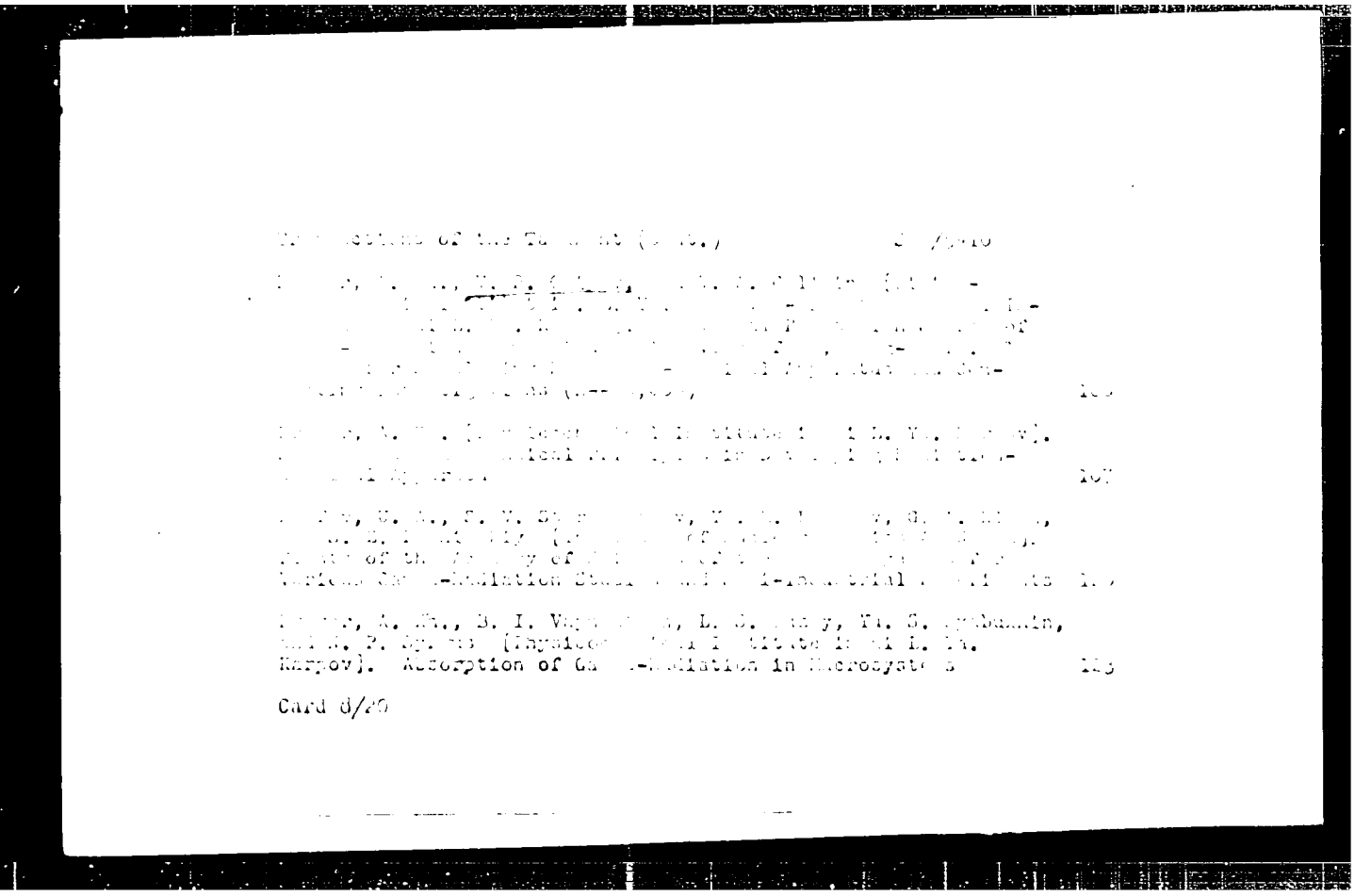
[illegible] OF CONTENTS:

[illegible] RADIATION [illegible]

[illegible] (Institute [illegible] - Institute of [illegible]) [illegible] of Radioactive Isotopes [illegible] in [illegible]

[illegible] and V. A. [illegible] (Institute [illegible] - Institute of Physics [illegible]). [illegible] of the [illegible] of Automatic-Control Apparatus Based on the Use of Radioactive Isotopes

Card 3/20



Card 8/20

S/081/62/000/004/034/087
B156/B138

AUTHORS: Breger, A. Kh., Chibov, V. P., Gol'din, V. A.

TITLE: The universal [illegible] (K-60 000) apparatus, with a Co^{60} gamma-radiation source, its activity 60 000 g-equiv. of radium for simulating chemical radiation apparatus and carrying out research

PERIODICAL: Referativnyy zhurnal. Khimiya, no. 4, 1962, 30, abstract 4I137 (Sb. "Radioakt. izotopy i yadern. izlucheniya v nar. kh-ve SSSR, vol. I", M., Gosatomizdat, 1961, [illegible])

TEXT: A universal apparatus is described for simulating chemical radiation apparatuses, and for conducting research with a Co^{60} γ-radiation source of activity 60 000 g.-equiv. of radium. This design of apparatus enables a powerful source of radiation to be assembled safely using a special container for transportation and charging. This apparatus can be used for simulating chemical radiation apparatus with powerful isotopic sources of γ-radiation, and of various shapes and dimensions.
[Abstracter's note: Complete translation.]

Card 1/1

KUZ'MINSKIY, A.S.; RUZER, L.S.; SUNITSA, L.L.; Prinimali uchastiye: VINOGRADOV, V.V.; VITUSHKIN, N.I.; YEVLAMPIYEV, A.I.; OSIPOV, V.B.

Apparatus with a source of gamma rays of Co^{60} with 16,000 g-equivalent of radium for radiochemical investigations of crude and vulcanized rubbers. Kauch. i rez. 20 no.11:8-10 N '61. (MIRA 15:1)

1. Nauchno-issledovatel'skiy institut rezinovoy promyshlennosti.
(Rubber) (Gamma rays)

30079
S/058/61/000/011/[illegible]
B117/B102

21 7100
15 2660

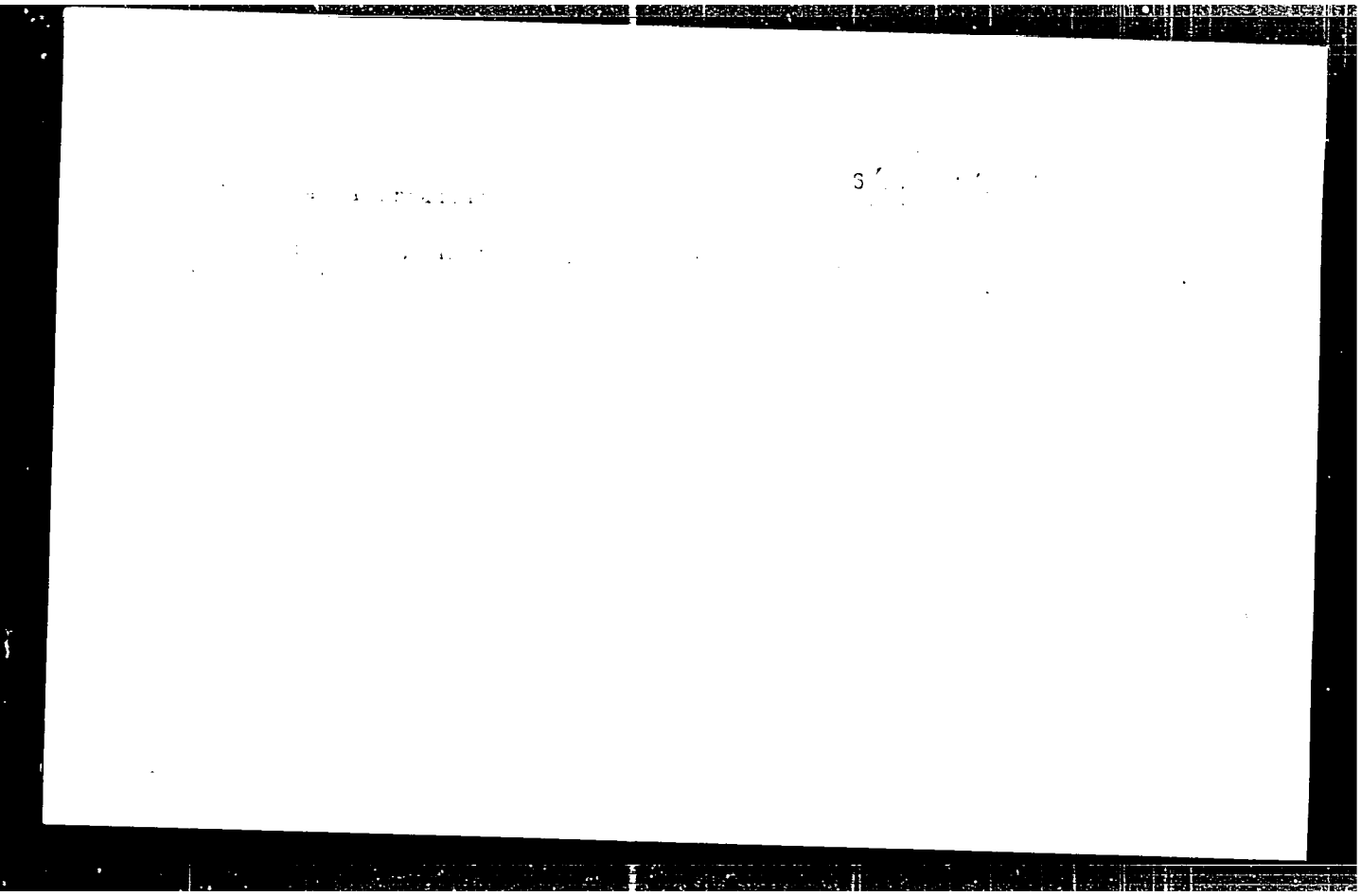
AUTHORS: Trinkler, E. I., Del'din, V. A., and Osipov, V. B.

TITLE: Effect of gamma irradiation upon disaccomodation of nickel-zinc ferrites

PERIODICAL: Akademiya nauk SSSR. Izvestiya. Seriya fizicheskaya, [illegible] no. 11, [illegible]

TEXT: The authors examined the effect of gamma irradiation upon disaccomodation in nickel-zinc ferrites of the types Φ-100 (F-100), Φ-600 (F-600), and Φ-250 (F-250) between -200°C and 0°C. The irradiation was performed with 45000 g-equiv of Co^{60} at the Fiziko-khimicheskiy institut im. L. Ya. Karpova (Physicochemical Institute imeni L. Ya. Karpov), using a K-60,000 (K-60,000) universal apparatus (Ref. [illegible] A. Kh., Osipov, V. B., Del'din, V. A., Atomnaya energiya, [illegible] The specimens were placed at the cylindrical irradiator (D = [illegible] H = 300 mm, active volume = 9 liters). The radiation dose was [illegible] r/s. In the center part of the specimens irradiated at -[illegible]°C were placed a cryostat housed in a Dewar. During operation with the cryostat [illegible]

Card 1/[illegible]



S/190/63/005/004/020/020
B101/B220

AUTHORS: Ivanov, V. S., Sukhikh, T. A., Breger, A. Kh., Osipov, V. B., Gol'din, V. A.

TITLE: Radiation polymerization of maleic N-phenyl maleinimide in solid state

PERIODICAL: Vysokomolekulyarnyye soyedineniya, v. 5, no. 4, 1963, 628

TEXT: Maleic N-phenylimide, m.p. 89 - 90°C, was polymerized by Co^{60} gamma irradiation. The irradiation yield was ~1000 molecules per 100 ev. At 87.5°C, 0.65 Mr/hr and a dose of 2.2 Mr, 32.5 % of polymer was obtained. At 20°C this yield decreased to 4.5 - 6.5 %. More complete polymerization (79.5 %) was achieved by further heating to 100°C of the ampoules that had been irradiated at 82°C. With 2 - 5 Mr light yellow crystalline powders were obtained, with 10 Mr brown amorphous substances. Dependent on the conditions of production, the polymers are heat-resistant up to 250 - 330°C, soluble in dimethyl formamide and CS_2, insoluble in H_2O, acetone, CCl_4, benzene, toluene, heptane and cyclohexane. The IR spectra of the polymers showed bands of the phenyl ring, the carbonyl group and the C-N bond.

Card 1/2

Radiation polymerization of ...

S/190/63/005/004/020/020
B101/B220

From a comparison of the IR spectra of monomer and polymer it was concluded that in the course of polymerization the C=C bonds are opened.

SUBMITTED: July 26, 1962

Card 2/2

L 17094-63 EPR/EWP(j)/EPF(c)/EWT(m)/BDS AFFTC/ASD Ps-4/Pc-4/Pr-4
ACCESSION NR: AP3004711 RM/WW/AR S/0190/63/005/008/1255/1262

AUTHORS: Ivanov, V. S.; Medvedev, Yu. V.; Vasilenko, V. F.; Breger, A. Kh.; Osipov, V. B.; Gol'din, V. A. 19 77

TITLE: Studies in radiation polymerization. 2. The radiation polymerization of piperylene

SOURCE: Vy*sokomolekulyarny*ye soyedineniya, v. 5, no. 8, 1963, 1255-1262

TOPIC TAGS: radiation polymerization, piperylene, radiolysis, Co^{60}, carbon tetrachloride, argon, krypton

ABSTRACT: Samples of piperylene monomer were placed in sealed glass ampules in an atmosphere of nitrogen, argon, or krypton, and subjected to gamma-irradiation by means of a Co^{60} installation. Following absorption of doses from 1 to 160 Mr, the ampules were opened, the gases subjected to chromatographic study. The obtained polymer was analyzed for viscosity and degree of unsaturation, and was studied by infrared spectroscopy. The gaseous products of radiolysis contained hydrogen, methane, ethylene, acetylene, divinyl and 98.5% piperylene. The degree of unsaturation of the polymer amounted to 84 and 87% for samples receiving 80 and 160 Mr respectively. It was found that the yield of the polymer increased with the

Card 1/2

L 17094-63
ACCESSION NR: AP3004711

2

irradiation dose and that the presence of nitrogen, argon, and krypton exerted a sensitizing effect on radiation polymerization. Infrared spectroscopy revealed that the structure of the polypiperylene consisted mainly of 1,4-trans chains, 1,2-trans chains, or of their combination, while the amount of cis-configurations had decreased trifold. It is concluded that in radiolysis the main line of cleavage of the piperylene molecule consists in the severance of the single bond between the fourth and fifth carbon atoms. The authors are deeply grateful to N. I. Leonova for assistance in infrared spectroscopy. Orig. art. has: 1 table, 2 charts, and 14 formulas.

ASSOCIATION: Leningradskiy gosudarstvennyy universitet fiziko-khimicheskiy institut im. L. Ya. Karpova (Leningrad State University, Physical-Chemical Institute)

SUBMITTED: 12Feb62 DATE ACQ: 28Aug63 ENCL: 00
SUB CODE: CH NO REF SOV: 008 OTHER: 023

Card 2/2

BREGER, A.Kh.; EL'TEKOV, V.A.; TERENT'YEV, B.M.; VAYNSHTEYN, B.I.; SYRKUS, N.P.; KRASNOSHCHEKOVA, N.A.; OSIPOV, V.B.; GOL'DIN, V.A.

Absorption of gamma-radiation energy in macrosystems. Dokl. AN SSSR 150 no.4:866-869 Je '63. (MIRA 16:6)

1. Fiziko-khimicheskiy institut imeni L.Ya. Karpova. Predstavleno akademikom V.A. Karginym.
(Gamma rays) (Heat exchangers)

ACCESSION NR: AP4037271 S/0190/64/006/005/0782/0786

AUTHORS: Ivanov, V. S.; Sukhikh, T. A.; Medvedev, Yu. V.; Breger, A. Kh.; Osipov, V. B.; Gel'din, V. A.

TITLE: Studies in radiation polymerization. 3. Radiation polymerization of piperylene in channel complexes of urea

SOURCE: Vysokomolekulyarnyye soyedineniya, v. 6, no. 5, 1964, 782-786

TOPIC TAGS: piperylene polymerization, urea clathrate complex, endocytic clathrate component, channel polymerization, tube structure, trans piperylene polymer

ABSTRACT: Urea clathrate complexes with piperylene as endocytic component were prepared by mixing 1 gm urea with 0.001— 0.1 ml methanol, cooling in a glass ampule to -78C, and adding 1-3.7 moles of cooled piperylene per mole of urea. The polymerization of piperylene was achieved by γ -irradiation with Co^{60}. Parallel studies on block-polymerization of piperylene were conducted at -78C with irradiation doses of 30 Mrad. After 2 to 6 weeks at -78 to -45C, the residual piperylene monomer was removed by means of a vacuum pump. The urea was then dissolved in 10% acetone, leaving polymers whose specific viscosity, degree of unsaturation, and

Card 1/2

ACCESSION NR: AP4037271

infrared spectra were recorded. It was found that in channel polymerization an optimal yield of the polymer (66%) was obtained at a methanol content of 0.001 ml per 1 gm urea and at a molar ratio of the monomer to urea of 1:(3.5-3.7). The yield was considerably higher than in block polymerization. The infrared spectra of the channel polypiperylene in CCl_4 revealed the presence of only the 1,4-transconfiguration (at 968 cm $^{-1}$), while the block-polymerized polymer contained the trans- as well as the cis form. Orig. art. has: 2 tables and 1 chart.

ASSOCIATION: Leningradskiy gosudarstvenny*y universitet (Leningrad State University); Fiziko-khimicheskiy institut im. L. Ya. Karpova (Physicochemical Institute)

SUBMITTED: 07May63 DATE ACQ. 09Jun64 ENCL: 00

SUB CODE: MT NO REF SOV: 005 OTHER: 010

Card 2/2

ACCESSION NR: AP4012181 S/0191/64/000/002/0003/0006

AUTHORS: Abkin, A. D.; Auer, A. L.; Breger, A. Kh.; Vaynshteyn B. I.; Voropayev, Yu. V.; Gol'din, V. A.; Gromov, V. ...; Osipov, V. B.; Sy*rkus, N. P.; Ushakov, V. D.; Khomikova... P. M.; Tsingister, V. A.; Chikin, Yu. A.

TITLE: Radiation polymerization of ethylene in enlarged laboratory apparatus.

SOURCE: Plasticheskiye massy*, no. 2, 1964, 3-6

TOPIC TAGS: ethylene, radiation polymerization, reactor design, reactor surface area, reaction rate, polymer yield, reactor temperature field

ABSTRACT: Radiation polymerization of ethylene was conducted in laboratory reactors of 1-2 liter capacity (fig. 1 & 2). Based on tolerances admitted in this work, it was found that the temperature field can be calculated with sufficient accuracy. Comparison of reaction rates and yield of ethylene polymer shows that these factors are independent of the specific surface of the reaction space. Thus

Card 1/4

ACCESSION NR: AP4012181

commercial scale apparatus can be designed by estimating the process rate and yield dependence on pressure, temperature and dosage rate without concern for specific surface area of the reactor. Orig. art. has: 1 Table and 5 Figures

ASSOCIATION: None

SUBMITTED: 00 DATE ACQ: 26Feb64 ENCL: 0

SUB CODE: MA NR REF SOV: 005 OTHER: 003

Card 2/2

SHALASHOV, V.A.; Prinimali uchastiye: BR[illegible]ER, A.[illegible], [illegible], A.A.; GOL'DIN, V.A.; OSIPOV, V.B.

Effect of preirradiation on the structure and thermal decomposition of cementite. Zhur. fiz. khim. [illegible] no.[illegible] [illegible]

[illegible]

1. Inst[illegible] [illegible]

BREGER, A.Kh.; OSIPOV, V.B.; GOL'DIN, V.A.

[Universal plant with a Co^{60} gamma-ray source of 60,000 gram-equivalent Ra for modeling radiochemical apparatus and conducting studies of («K= 60,000»)] Universal'naia ustanovka s istochnikom γ - izlucheniia Co^{60} aktivnost'iu 60 000 г-экв. Ra dlia modelirovaniia radiatsionno-khimicheskikh apparatov i provedeniia issledovanii («K - 60 000»). Moskva, Glav. upr. po ispol'zovaniiu atomnoi energii, 1960. 14 p. (MIRA 17:4)

L 7875-66 EWT(m)/EPF(c)/EWP(j)/EWA(h)/EWA(l) RM

ACC NR: AP5025035 SOURCE CODE: UR/0286/65/000/016/0084/0084

AUTHORS: Medvedev, Yu. V.; Ivanov, V. S.; Ivanova, L. I.; Breger, A. Kh.; Osipov, V. B.; Gol'din, V. A.

ORG: none

TITLE: Method for obtaining polychloroprene. Class 39, No. 173947

SOURCE: Byulleten' izobreteniy i tovarnykh znakov, no. 16, 1965, 84

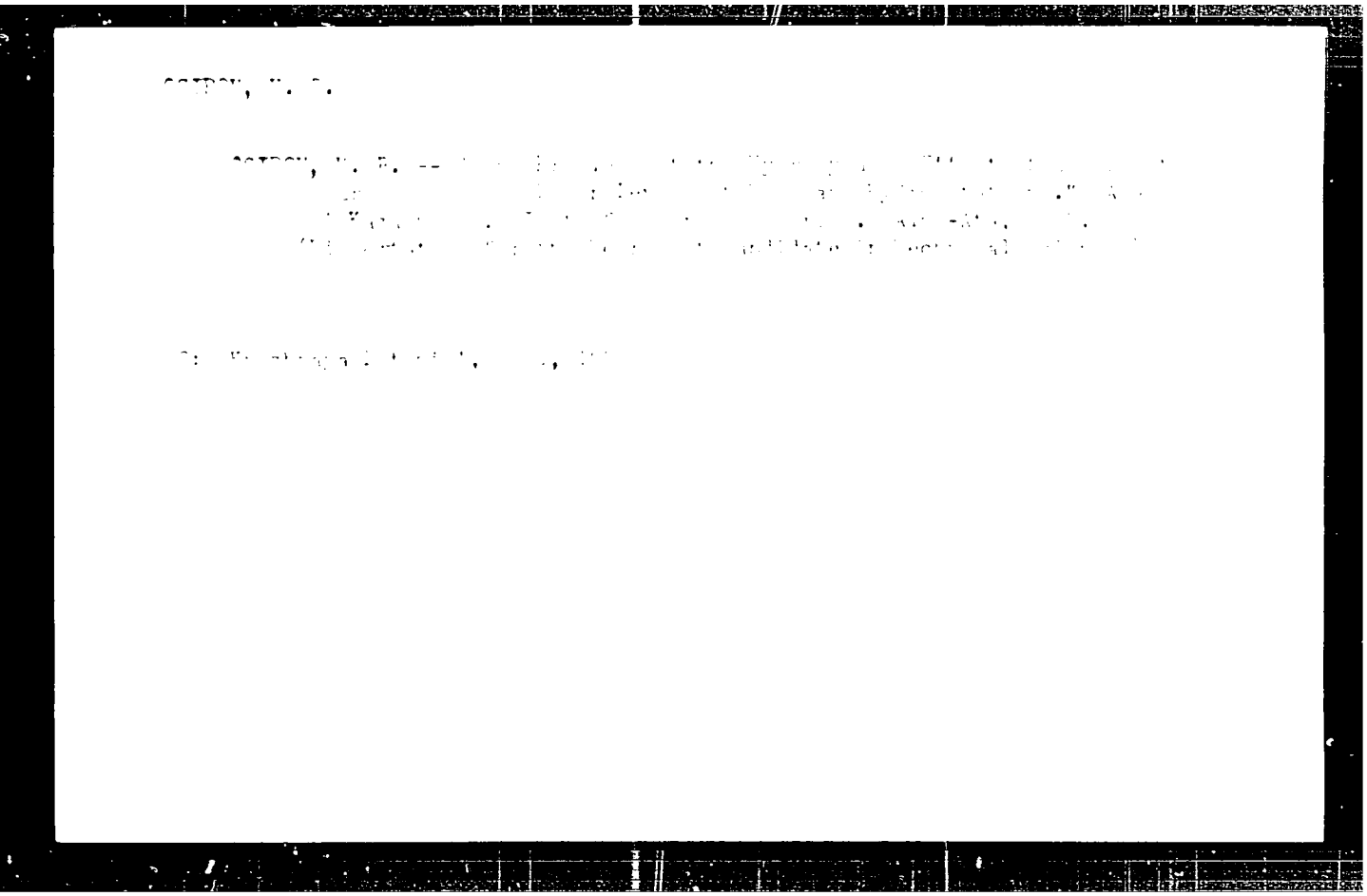
TOPIC TAGS: rubber, chloroprene, polychloroprene, polymer, polymerization

ABSTRACT: This Author Certificate presents a method for obtaining polychloroprene by polymerization of chloroprene under the influence of γ-radiation. To regulate the molecular weight and structure of the polymer, the polymerization is carried out in the presence of amine and phenol type stabilizers.

SUB CODE: 07/ SUBM DATE: 12Feb62

nw

Card 1/1 UDC: 678.765.2.002.2



112-1-351 D

Translation from: Referativnyy Zhurnal, Elektroteknika, 1957, Nr 1, p. 98 (USSR)

AUTHOR: Osipov, V. B.

TITLE: Certain problems of the Hydrodynamic Influence of the Flow upon the Erosion in the Tail Race of Dams and Hydro Stations (Nekotoryye voprosy gidrodinamicheskogo vozdeystviya potoka na razmyv v nizhnem b'yefe plotin i gidrostantsiy)

ABSTRACT: Bibliographic entry on the author's dissertation for the degree of Candidate of Technical Sciences, presented to the Power Engineering Institute, Academy of Sciences (In-t energ. AN KazSSR), Kazakh SSR, Alma-Ata, 1955

ASSOCIATION: Power Engineering Institute, Kazakh SSR Academy of Sciences, Alma-Ata (In-t energ. AN KazSSR, Alma-Ata)

Card 1/1

L 24106-65 EWG(j)/EWT(m)/EPF(c)/EWP(j)/T/EWA(h)/EWA(l) Pc-4/Pr-4/Peb RM

ACCESSION NR: AP5001917 S/0286/64/000/023/0059/0059

AUTHORS: Ivanov, V. S.; Sukhikh, T. A.; Breger, A. Kh.; Osipov, V. B.; Gol'din, V.A.

TITLE: Method of obtaining hard polymers from N-phenylimide maleic acid. Class 39, No. 166832

SOURCE: Byulleten' izobreteniy i tovarnykh znakov, no. 23, 1964, 59

TOPIC TAGS: polymer, ionizing radiation, N phenylimide maleic acid

ABSTRACT: This Author Certificate introduces a method for obtaining hard polymers of N-phenylimide maleic acid. To obtain a thermostable and chemically stable material, N-phenylimide maleic acid is subjected to ionising radiation at a temperature close to that of its melting point but never exceeding it. After this, the radiated product is heated to 100C. To obtain the polymer in its preferential crystalline or amorphous state, the radiation dose is varied from 2 to 10 milliroentgen respectively.

ASSOCIATION: none

SUBMITTED: 26Jul62 ENCL: 00 SUB CODE: OC

NO REF SOV: 000 OTHER: 000

Card 1/1

OSIPOV, V.D., inzh.

Eliminating skidding operations in lumber transportation. Mekh. trud. rab. 11 no.12:42-44 D '57. (MIRA 11:3)
(Lumber--Transportation)

DMITRIEVSKIY, Semen Mikhaylovich,; OSIPOV, V.D., red.; MOROZOV, Yu.V., red. izd-va; SHITS, V.P., tekhn. red.

[Methods for increasing productivity of logging trucks.] Puti povysheniia proizvoditel'nosti avtomobilei na vyvozke lesa. Moskva, Goslesbumizdat, 1958. 23 p. (MIRA 11:11)
(Lumber--Transportation)
(Motortrucks)

AUTHOR: Osipov, V.D., Engineer SOV-119-58-10-8/16

TITLE: Means of Improving Complex Techniques at Lumbering Sites (Puti rosta kompleksnoy vyrabotki na lesozagotovkakh).

PERIODICAL: Mekhanizatsiya trudoyëmkikh i tyazhëlykh rabot, 1958, Nr 10, pp 25 - 28 (USSR)

ABSTRACT: In connection with the article by Professor S.F. Orlov in Nr 4 (1958) of this periodical on the same subject, the author proposes different methods of developing the lumber industry. He cites the achievements of various organizations and brigades, and mentions the tools they use. He regrets that TsNIIMÉ does not popularize the best methods of production. There are 2 Soviet references.

1. Lumber industry--Development

Card 1/1

AUTH: Osipov, V.I., Engineer

TITLE: Mechanization of timber cutting in Canada. Mekhanizatsiya lesozagotovok v Kanade

PERIODICAL: Mekhanizatsiya trudoyemkikh i tyazhelykh rabot, 1958, Nr 1, pp 45-46 (USSR)

ABSTRACT: The author reviews the book "Canadian Timber Industry", written by a collective team and edited by I.V. Orlov published by Goslesbumizdat in 1957. The book contains material and data presented to a Soviet delegation of experts during their visit to Canada in 1956.

1. Timber--Cutting--Automation--Canada 2. Books--Review

Card 1/1

OSIPOV, V.D., inzh.

Review of "Lecturps on automation in the woodworking industries" by N.A.Morozov. Mekh.i avtom.proiz. 14 no.6:59 Je '60. (MIRA 13:7)

(Woodworking industries)
(Automation)

ROZHENKOV, Mikhail Gavrilovich; GUBIN, V.A., inzh., retsenzent; BUDARTSEVA, S.S., inzh., retsenzent; OSIPOV, V.D., red.; GORYUNOVA, L.K., red.izd-va; KORNYUSHINA, A.S., tekhn.red.

[Mechanizing the felling and the division of timber] Mekhanizatsiia valki i razvedki lesa. Moskva, Goslesbumizdat, 1960. 138 p. (MIRA 13:7)

(Lumbering)

OSIPOV, Vladimir Dmitriyevich; STUKUA, M., red.; GINZBURG, A., tekhn.red.

[The money is on the right; a Canadian notebook] Den'gi lezhat sprava; kanadskie zametki. Moskva, Izd-vo "Izvestiia," 1960. 214 p. (MIRA 13:6)
(Canada--Description and travel)

OSIPOV, V.D., inzh.

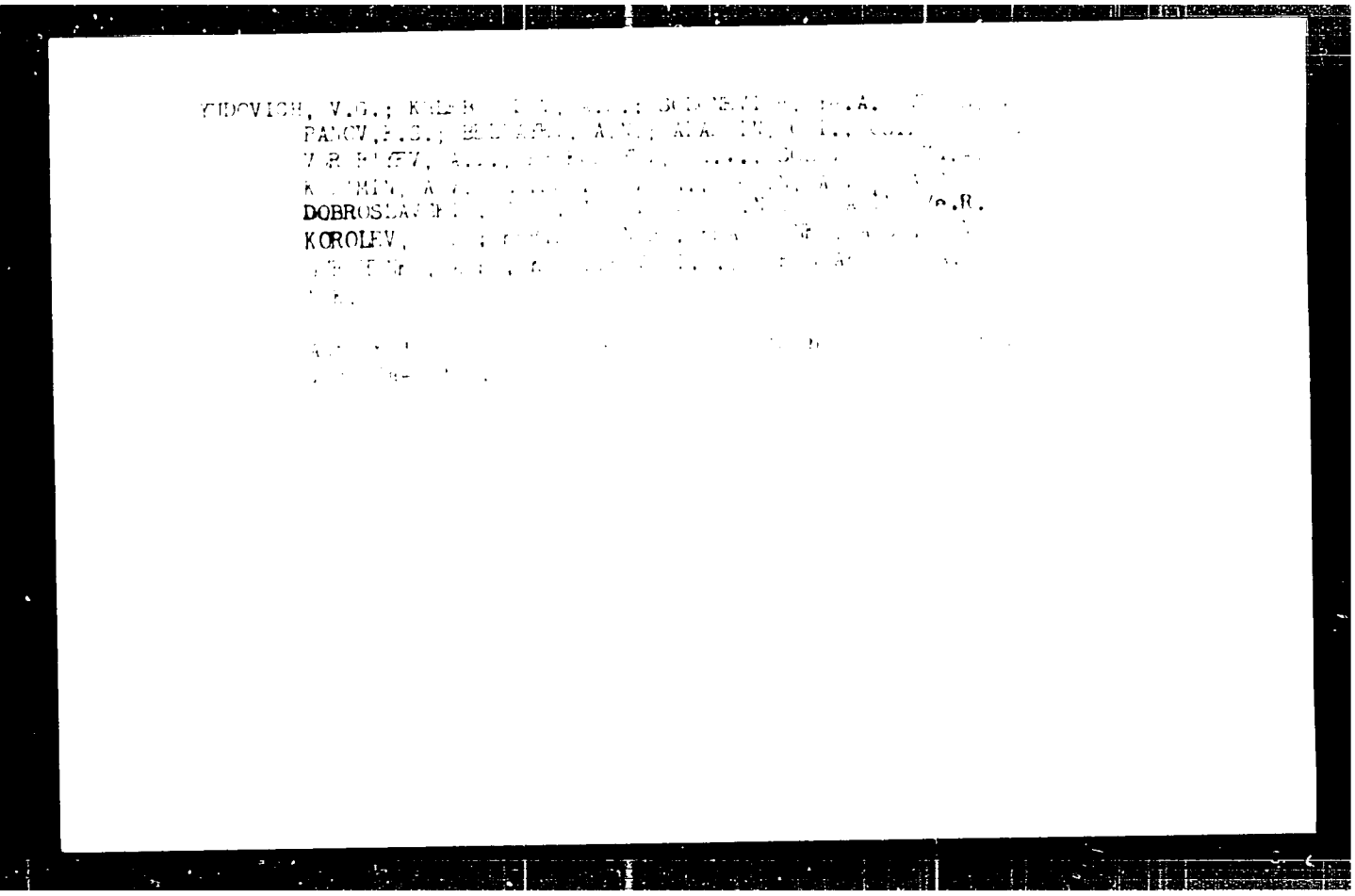
Speed up the development of new equipment for the mechanization and automation of lumbering operations. Mekh.i avtom.proizv. 16 no.5: 52-54 '62. (MIRA 16:5)

(Lumbering—Machinery) (Automation)

OSIPOV, Viktor Dmitriyevich; SUDNITSYN, I.I., red.

[Work practices and organizational tasks of the Scientific Technological Society in the acceleration of technological progress] Opyt raboty i zadachi organizatsii NTO v uskorenii tekhnicheskogo progressa, Moskva, 1963. 44 p. (MIRA 17:5)

1. Nauchno-tekhnicheskoye obshchestvo lesnoy promyshlennosti i lesnogo khozyaystva. TSentral'noye pravleniye.



L 38271-65 EWT(d)/EWT(m)/EWP(w)/EWA(d)/EWP(v)/T-2/EWP(t)/ETP(k)/EWP(l)
ACCESSION NR: AP5008149 Pf-4 EM S/0286/65/000/005/0029/0029

AUTHORS: Markov, B. M.; Osipov, V. F.; Vorob'yev, A. I. 23 B

TITLE: Instrument for mounting rotor blades of a turbine. Class 14, No. 168726

SOURCE: Byulleten' izobreteniy i tovarnykh znakov, no. 5, 1965, 29

TOPIC TAGS: turbine, turbine blade, gas turbine

ABSTRACT: This Author Certificate presents an instrument for mounting the rotor blades of a turbine, such as a gas turbine, by means of a shaft placed in grooves in the disk rim (see Fig. 1 on the Enclosure). To simplify the construction and increase the reliability, the blade stems and the disk rim have slots forming continuous grooves. These grooves are cut to place a split ring held by a bushing rigidly clamped to the disk. Orig. art. has: 1 figure.

ASSOCIATION: Gosudarstvennyy soyuznyy mashinostroitel'nyy zavod (State Union Machine Construction Factory)

SUBMITTED: 10Feb64 ENCL: 01 SUB CODE: PR

NO REF SOV: 000 OTHER: 000

Card 1/1

ACC NR: AP7005666 SOURCE CODE: UR/0413/67/000/002/0137/0138

INVENTOR: Vorob'yev, A. I.; Klyushkin, Ye. A.; Osipov, V. F.

ORG: None

TITLE: A locking device which prevents axial motion of the working blades in a turbine disc. Class 46, No. 190727

SOURCE: Izobreteniya, promyshlennyye obraztsy, tovarnyye znaki, no. 2, 1967, 137-138

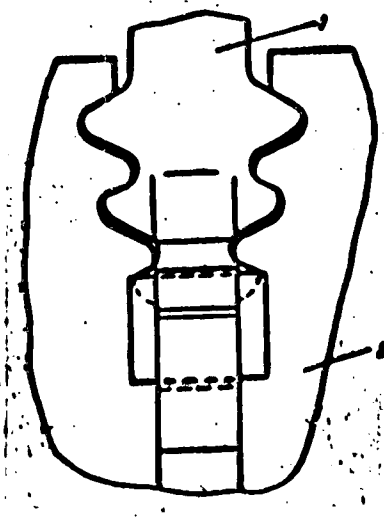
TOPIC TAGS: turbine blade, turbine disk, mechanical fastener

ABSTRACT: This Author's Certificate introduces a locking device which uses plates for preventing axial motion of the working blades in a turbine disc. The weight and overall dimensions of the locking plates are reduced and their operational reliability is increased by inserting them into integrated radial channels of rectangular cross section cut into the facing surfaces of the blades and disc at the herringbone connection points. The plates are pushed into the channels until they stop and the free ends are flanged.

UDC: 621.438.621.45

Card 1/2

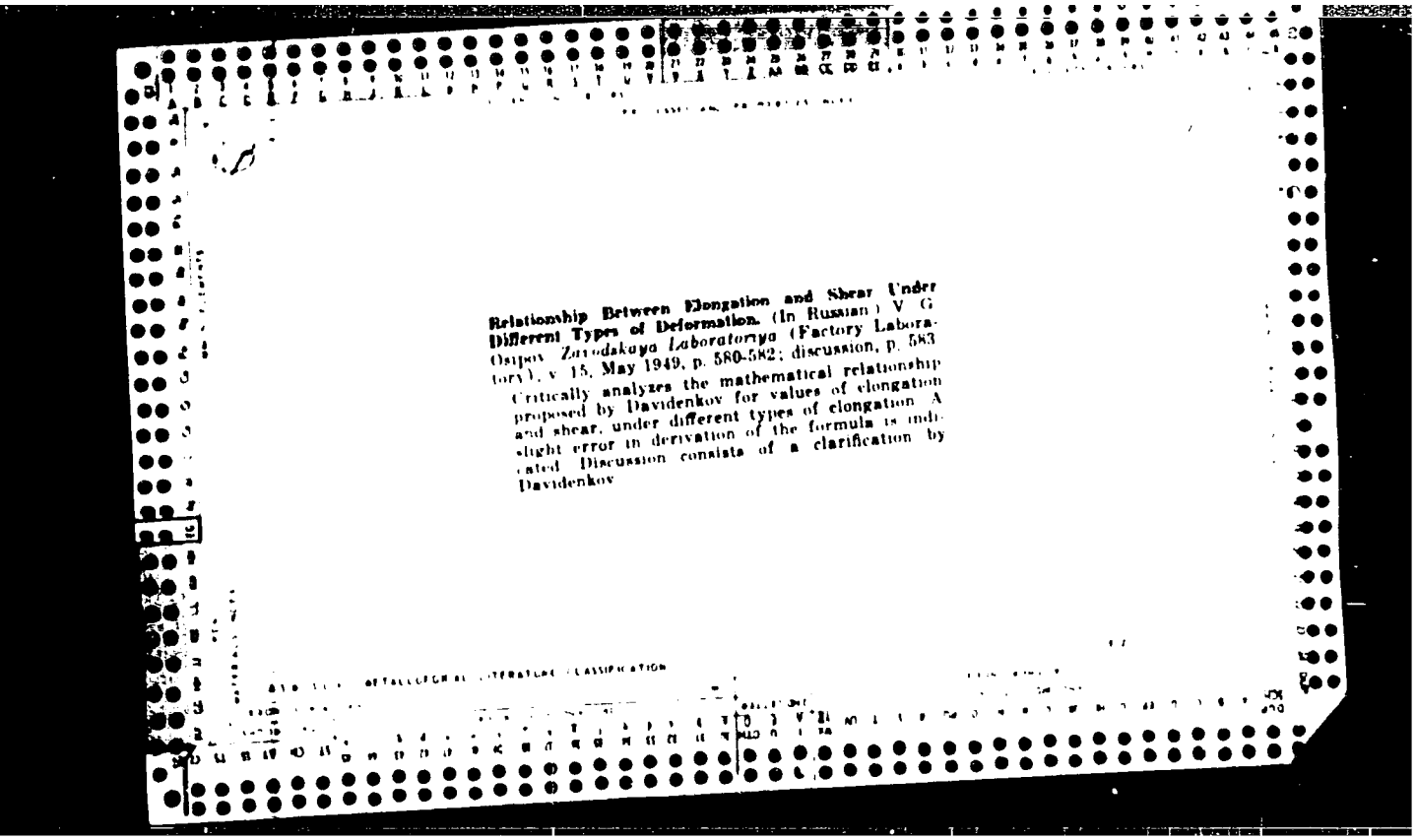
ACC NR: AP7005666



1—blade; 2—disc

SUB CODE: 10/ SUBM DATE: 30Jan63

Card 2/2



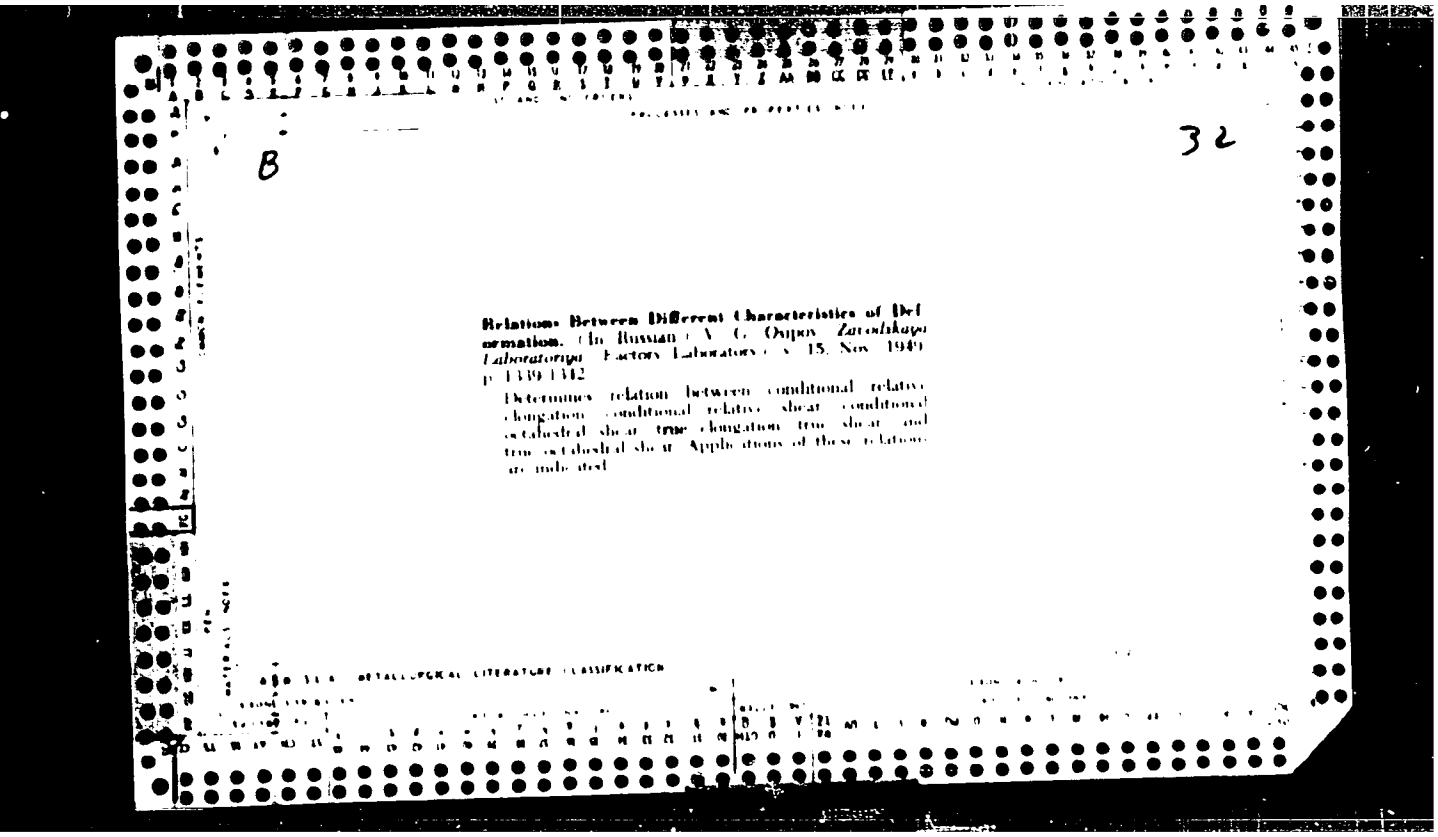
Relationship Between Elongation and Shear Under Different Types of Deformation. (In Russian.) V. G. Osipov. *Zavodskaya Laboratoriya* (Factory Laboratory), v. 15, May 1949, p. 580-582; discussion, p. 583

Critically analyzes the mathematical relationship proposed by Davidenkov for values of elongation and shear, under different types of elongation. A slight error in derivation of the formula is indicated. Discussion consists of a clarification by Davidenkov.

OSIPOV, V. G.; GUBKIN, S. I.; DANIL'CHENKO, A. N.

"Ductile Fracture by Shear on Compression," Zavodskaya Laboratoriya 1 (1949) pp 1100/1101.

B-78539, 8 Sep 54



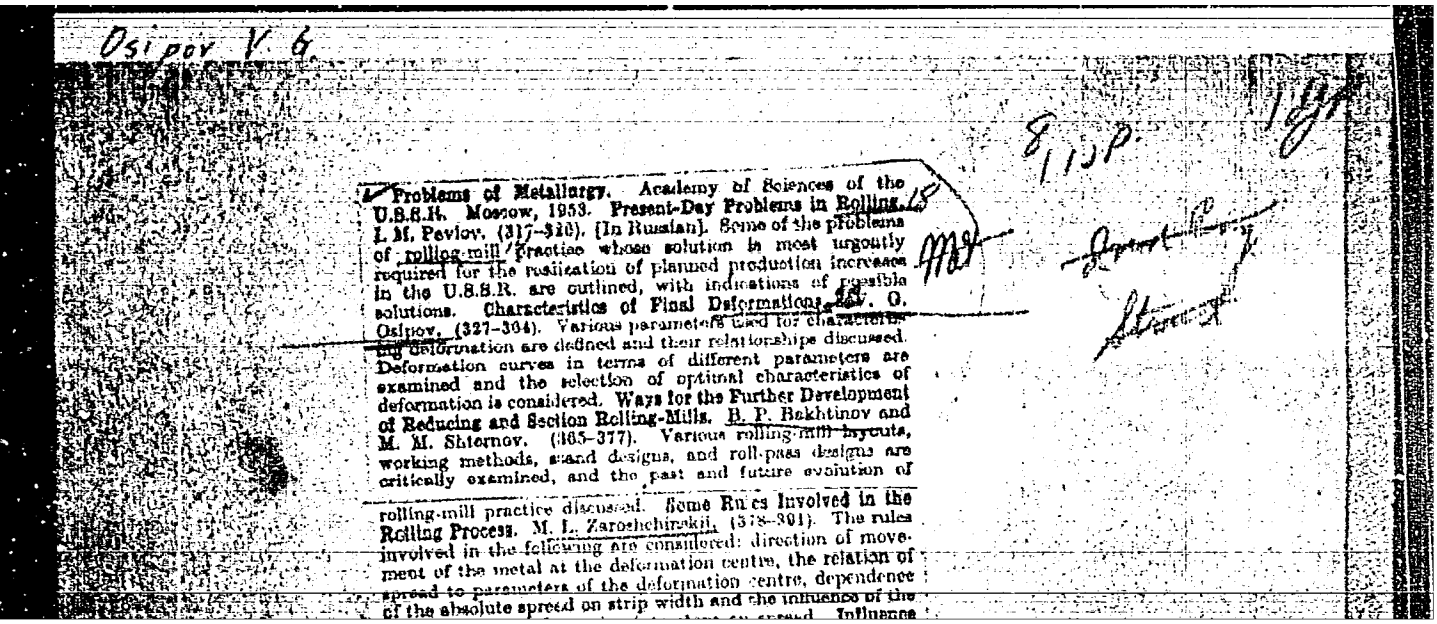
B

32

Relations Between Different Characteristics of Deformation. (In Russian.) V. G. Ozerov. *Zavodskaya Laboratoriya*. Factory Laboratory, v. 15, Nov. 1949, p. 1339-1342.

Determines relation between conditional relative elongation, conditional relative shear, conditional octahedral shear, true elongation, true shear, and true octahedral shear. Applications of these relations are indicated.

METALLURGICAL LITERATURE CLASSIFICATION



Osipov V. G.

8/15P.

Problems of Metallurgy. Academy of Sciences of the U.S.S.R. Moscow, 1953. **Present-Day Problems in Rolling.** I. M. Pavlov. (317–326). [In Russian]. Some of the problems of rolling-mill practice whose solution is most urgently required for the realization of planned production increases in the U.S.S.R. are outlined, with indications of possible solutions. **Characteristics of Final Deformations.** V. G. Osipov. (327–364). Various parameters used for characterising deformation are defined and their relationships discussed. Deformation curves in terms of different parameters are examined and the selection of optimal characteristics of deformation is considered. **Ways for the Further Development of Reducing and Section Rolling-Mills.** B. P. Bakhtinov and M. M. Shternov. (365–377). Various rolling-mill layouts, working methods, stand designs, and roll-pass designs are critically examined, and the past and future evolution of rolling-mill practice discussed. **Some Rules Involved in the Rolling Process.** M. L. Zaroshchinskii. (378–391). The rules involved in the following are considered: direction of movement of the metal at the deformation centre, the relation of spread to parameters of the deformation centre, dependence of the absolute spread on strip width and the influence of the

USSR/Metallurgy - Steel, Deformability Jun 53

"Deformability of Low-Alloy Structural Steel at High Temperatures," S I Gubkin, Active Mb Acad Sci Belo SSR, V. G Osipov, A N Danil'chenko

Iz Ak Nauk SSSR, OTN, No [illegible], pp [illegible]10-917

Studies following mech characteristics of low-alloy structural steel. resistance to deformation, plasticity indexes and coef of friction. Obtains plasticity diagram for impact compression, and for impact and static tension. Concludes that optimum temp zone of forging and rolling, being

275T52

in 900-1200° range, corresponds to deformation temps of low-carbon steel. It was also established that max possible reduction is 0.45 in region of temps of forging completion and 0.8 near upper limit of temp zone

Translation from: [illegible]

AUTHOR: Osipov, [illegible]

TITLE: The Process [illegible] Shear [illegible] Tension (Protsess [illegible] rastyazhenii)

PERIODICAL: [illegible] AN SSSR [illegible]

ABSTRACT: The process of [illegible] investigated. The theory [illegible] types [illegible] and rupture, depending [illegible] as the basis of the investigation [illegible] by shear was investigated [illegible] failure to the complete destruction [illegible] of the formation of cracks [illegible] means of microgaphs [illegible] larly to the axis of the specimen [illegible] compression, the failure by shear [illegible] plane which forms at [illegible] force, and a plane [illegible] external force [illegible]

Card 1/3

The Process of Fa...

the radius ... pal tangential stresses ... surface or ... the friction ... by tangential tensile stresses. ... of the failure of ... necking under ... cracks from the ... out on specimen's ... necking zone. The ... not exceeding ... ation process at ... nation and taking ... tension the fa... and then spreads ... of the neck. ... neck region is ... the peripher... subsequent destruction. ... portion expand... common axis ...

Card 2/3

The Process of Failure [illegible]

identical for both [illegible] surfaces [illegible] placement of the one portion of the specimen [illegible] other. The crack at the base of the [illegible] advances at a 45° angle with respect [illegible] axis [illegible] rather than at a right angle [illegible] stretching. An investigation was performed [illegible] that the [illegible] struction at the base of the cup-shaped [illegible] be [illegible] fied as a rupture.

1. Metals-Rupture-Test results 2. Metals-Shear stresses Test results 3. Metals-Mechanical properties-Test results

Card 3/3

OSIPOV, V.G.

Effect of outside parts of a deformed object on stresses. Trudy Inst. met. no.2:109-118 '57. (MIRA 10:11)
(Deformations (Mechanics))

AUTHOR: Osipov, V.G.

TITLE: A Method of Mechanical Pressure Resistance Tests at High Temperatures (Metod mekhanicheskikh ispytaniy szhatiyem pri vysokikh temperaturakh)

PERIODICAL: Zavodskaya Laboratoriya, 1957, Vol. 23, Nr 9, pp.1102-1104 (USSR)

ABSTRACT: A new method for mechanical pressure resistance tests at high temperatures was worked out. The continuous heating of metals is attained by the resistance current passing through the sample. There follows a description of the plant. In order to remove the non-uniformity of deformation, composed samples were used. Investigations were carried out of the plasticity and the resistance of deformation in dependence on temperature, the influence exercised by velocity on plasticity, and the influence exercised by the state of tension on destruction, the character of the creation and growth of the gap with increasing stress. For the purpose of investigating the character of the deformation and destruction of alloys of little plasticity various grey cast iron properties were investigated. During investigation of the deformation velocity, which was carried out at an optimum temperature, it was found that with a decrease of deformation velocity plasticity increases

Card 1/2

A Method of Mechanical Pressure Resistance Tests at High Temperatures

considerably. The device discussed here makes it possible to observe the character of initial destruction and the widening of the gap with an increase of stress. Besides, it is possible with this device to carry out long pressure resistance tests at temperatures of up to 1800°, and to investigate the mechanical properties of the material as well as the character of the creation and widening of the gap. There are 4 figures.

ASSOCIATION: Institute for Metallurgy imeni A.A.Baykov AN USSR (Institut metallurgii im. A.A.Baykova Akademii nauk SSSR)

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Card 2/2

Translation from Referativnyy zhurnal Metallurgiya 1958 No. [illegible] USSR

AUTHOR Osipov, V. G.

TITLE The Influence of the Undeformed Portions of a Body Undergoing a Deformation on the Body Stress as a Whole (Vliyaniye neszdeformirovannykh chastey deformiruyemogo tela na napryazzennoye sostoyaniye tela v

PERIODICAL Tr. In-ta metallurgii AN SSSR, 1957, No. 2, pp. [illegible]

ABSTRACT An optical method was used to test the basic tenets of the "rigid-end" theory in the mechanical working of metals. An optically active material which preserved its optical properties at deformations of up to 30 percent was deformed elastically in a manner approximating the open-die forge process. A specimen placed on a broad anvil was subjected to the pressure of a die having a width greater than the specimen length. The test confirmed completely the "rigid-end" theory of I. M. Pavlov. The stress being exerted on the body in the area of active deformation in the presence of undeformed portions of the body changes as a function of the length of said portions, where the magnitude of this length is a significant factor until it reaches a certain value. As said length increases, the concentrations of the stress in the

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The Influence of the Undeformed Portions of a Body ...

body decreases, as does the difference between τ_{max} & τ_{int} ... inclination of the principal stresses ... region deformation increases, the influence of the unaffected portion ... stress as a whole becomes more intense ... much smaller deformations ... concentration of stresses ... tensile stresses present ...

V. G.

1. Metals--Deformation--Test methods 2. Metals--Stress analysis

Card 2/2

AUTHOR: Osipov, V. G.

TITLE: Judging the Degree of Deformation in Tests of Simple Compression (Otsenka stepeni deformatsii pri ispytanii na prostoye szhatiye)

PERIODICAL: Zavodskaya Laboratoriya, 1958, Vol 24, Nr [illegible], pp [illegible] (USSR)

ABSTRACT: While in investigations of the metal plasticity the degree of deformation is determined at the moment of the beginning of destruction, there exist in compression several kinds of destruction that depend on the properties of the material and on the friction on the contact surface. The degree of deformation is usually determined according to the change of height. As however, the sample can also acquire a barrel-like shape after deformation, the real deformation at the places of destruction may differ by the [illegible] from the deformation according to height; in such cases the diameter should be measured in that half of the sample where deformation is greatest. An equation is given which thus

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Judging the Degree of Deformation in Tests of Simple Compressi[illegible]

renders possible the variation of the kind of calculation. Comparative measurements of the plasticity of cast iron samples showed that the deformation calculated according to the diameter is 1,5 - 2 times greater than that calculated according to height. There are 1 figure and 1 reference, 1 of which is Soviet.

ASSOCIATION: Institut metallurgii im. A. A. Baykova Akademii nauk SSSR (Institute of Metallurgy imeni A. A. Baykov, AS USSR

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18(7) PHASE I BOOK EXPLOITATION SOV/3355

Akademiya nauk SSSR. Institut metallurgii. Nauchnyy sovet po probleme sharoprochnykh splavov

Issledovaniya po sharoprochnym splavam, t. IV (Studies on Heat Resistant Alloys, vol. 4), Moscow, Izd-vo AN SSSR, 1959. 400 p. Errata slip inserted. 2,200 copies printed.

Ed. of Publishing House: V. A. Klimov; Tech. Ed.: A. P. Guseva; Editorial Board: I. P. Bardin, Academician, G. V. Kurdyumov, Academician; N. V. Ageyev, Corresponding Member, USSR Academy of Sciences; I. A. Oding, I. M. Pavlov, and I. F. Zudin, Candidate of Technical Sciences.

PURPOSE: This book is intended for metallurgists concerned with the structural metallurgy of alloys.

COVERAGE: This is a collection of specialized studies of various problems in the structural metallurgy of heat-resistant alloys. Some are concerned with theoretical principles, some with descriptions of new equipment and methods, others with properties of specific materials. Various phenomena occurring under specified conditions are studied and reported on. For details, see Table of Contents. The articles are accompanied by a number of references, both Soviet and non-Soviet.

Studies (Cont.) SOV/3355

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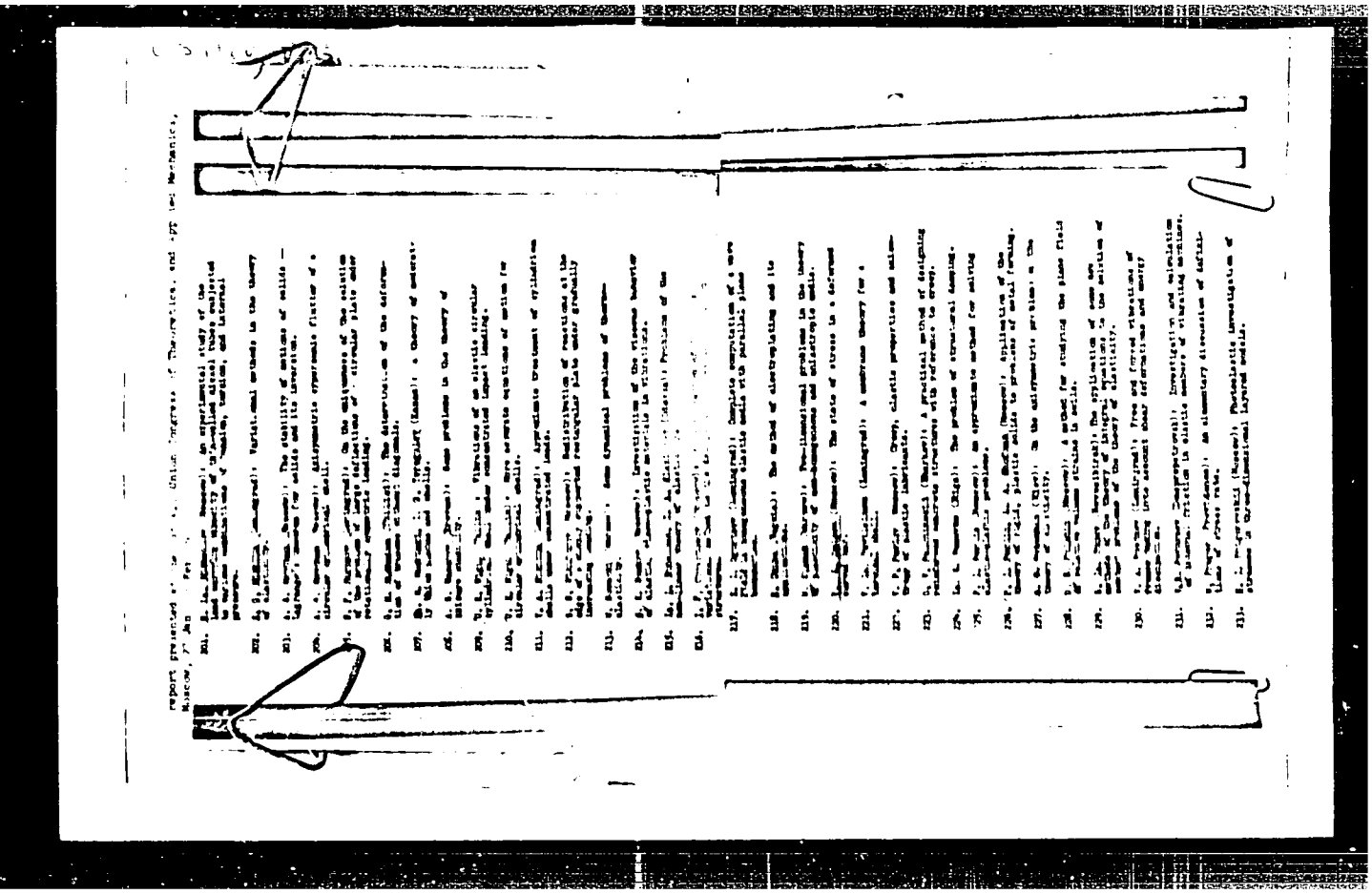
OSIPOV, V.G.

State of stress during the deformation of circular blanks.
Issl.po zharopr.splav. 4:385-391 '59. (MIRA 13:6)
(Deformations(Mechanics))



28 (5)

S/032/60/026/01/050/052
B010/B001

AUTHOR: Osipov, V. G.

TITLE: On the Determination of the Resistance of Pressed Pieces of Metal Powders (On the Occasion of the Paper by Yu. N. Semenov Published in the Periodical "Zavodskaya laboratoriya", Nr 10, 1958)

PERIODICAL: Zavodskaya laboratoriya, 1960, Vol 26, Nr 1, pp 122 - 125 (USSR)

ABSTRACT: Yu. N. Semenov (Ref 1) and A. V. Verkhovskiy and V. V. Romanovskaya (Ref 2) worked out a compression test on cylindrical samples which is used for the determination of the limit of resistance σ_B instead of the so far used stretching tests. The method is simple and shows some advantages in the examination of brittle or powdery materials. The authors (Refs 1,2) made two mistakes, however, when working out the method. The values for σ_B obtained by the latter method must not be considered identical with those obtained by stretching tests. Thus, the deduction of an equation for the determination of the values σ_B in stretching tests from data of the compression tests is also

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OSIPOV, V.I.

Determining the strength of compressed products from metal powders. Zav.lab. 26 no.1:122-125 '60. (MIRA 13:5)

1. Institut metallurgii imeni Baykova AN SSSR.
(Metals--Testing) (Strains and stresses)

OSIPOV, V.G.

Final deformations in plain shearing. Trudy Inst.met. no.5:133-142 '60. (MIRA 14:6)

(Shear (Mechanics))
(Metals--Testing)

22743

S/509/60/000/007/004/014
E081/E452

18 4.2

AUTHOR Osipov, V.G.

TITLE Stress System Resulting From the Compression of a Disc During the Swaging of Rods by Four Swaging Dies

PERIODICAL Akademiya nauk SSSR. Institut metallurgii. Trudy. No 7 Moscow 1960 pp 49-59 Metallurgiya metallovedeniye fiziko-khimicheskiy metody issledovaniya

TEXT This paper is a continuation of previous work (Ref 1 pp.34-48 of this issue). The rod of circular cross-section is compressed by four stresses acting along orthogonal diameters. The formulae for the distribution of the stresses σ_x, σ_y, τ_{xy} are derived in radial and cartesian coordinates The tangential stress around the contour of the rod, the stresses along the x and y axes and along axes inclined at 45° to the lines of action of the applied forces, are obtained analytically The fringe patterns (a) the isoclinics (б) the trajectories of the principal normal (в) and shear stresses in photoelastic experiments are shown in Fig.8. The advantages and disadvantages of swaging with four dies as compared with two are discussed in relation to the results Fig.9 shows the stress states in the

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Stress System Resulting From

individual zones of the rod cross-section. Central zone I - compression from all sides middle zone II - non-uniform compression from all sides, peripheral zone III - varying pattern with large compressive stresses (near the points of stress application), IV - almost linear compression (between the points of stress application) Plastic deformation spreads as the τ_{max} lines rise Analysis of data obtained on the strained state leads to the following conclusions. From the point of view of alloys fracturing during swaging the given scheme is more satisfactory than swaging with two swaging dies, since the tensile stresses are small and act in a small zone of the dis: (or rod) cross-section An important disadvantage of such working is the presence of a plastically undeformed central zone of the rod as a result of which this zone deforms during swaging, by longitudinal extension through deformation of peripheral zones. It can also lead to bending of swaged rods. For swaging metal with a sufficient reserve of plasticity, the author recommends a modification whereby this disadvantage can be avoided Both pairs of dies are disposed so that they are not mutually perpendicular and their operation is so timed that they d not

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Stress System Resulting From ...

work simultaneously. This gives the compression conditions of two-die swaging combined with the economic advantages of the four-die system. There are 9 figures, 1 table and 2 Soviet references.

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Stress System Resulting From ...

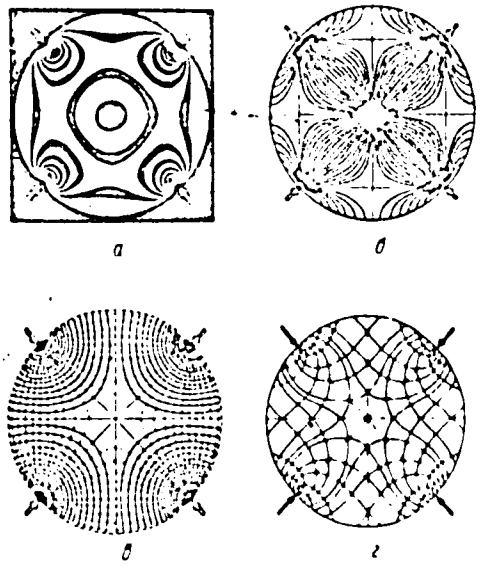

Fig.8.

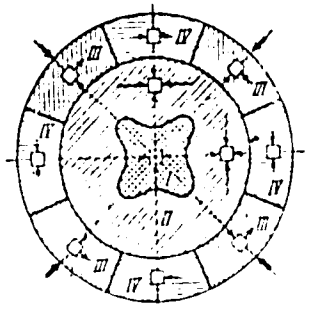

Fig.9.

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OSIPOV, V.G.

State of stress in rod drawing under flat dies. Trudy Inst. met. no.7:34-48 '60. (MIRA 14:3)
(Drawing(Metalwork)) (Strain and stresses)