ACC NR: AP6035826 SOURCE CODE: UR/0413/66/000/020/0035/0035

INVENTOR: Gitis, S. S.; Ivanova, V. M.; Nemleva, S. A.; Seina, Z. N.; Ivanov, A. V.

ORG: none

TITLE: Preparative method for pyromellitimide. Class 12, No. 187006

SOURCE: Izobreteniya, promyshlennyye obraztsy, tovarnyye znaki, no. 20, 1966, 35

TOPIC TAGS: pyromellitimide, pyromellitic anhydride, urea, chemical synthesis

ABSTRACT: An Author Certificate has been issued for a method of preparing pyromellitimide from pyromellitic anhydride. To ensure an increased yield, the method provides for treatment of pyromellitic anhydride with urea in a boiling solvent (e.g., acetic acid), followed by the separation of the precipitate.

SUB CODE: 07/ SUBM DATE: 080ct65/ ATD PRESS: 5104

Card 1/1 KS UDC: 547.557.1' '585.07

ACC NR: AP6029051 (A) SOURCE CODE: UR/0413/66/000/014/0080/0080

INVENTORS: Kudryavevtsev, G. I.; Tokarev, A. V.; Gitis, S. S.; Ivanova, V. M.; Seina, Z. N.; Lyubova, T. A.; Nemleva, S. A.

ORG: none

TITLE: A method for obtaining modified polyethyleneterephthalate. Class 39, No. 183936 [Announced by All-Union Scientific Research Institute of Synthetic Fibers (Vsesoyuznyy nauchno-issledovatel'skiy institut iskusstvennogo volokna)]

SOURCE: Izobret prom obraz tov zn, no. 14, 1966, 80

TOPIC TAGS: ~~polymer~~, polyethylene, ~~plastic~~, chemical synthesis

ABSTRACT: This Author Certificate presents a method for obtaining a modified polyethylene terephthalate by introducing modifying ingredients in the course of its synthesis. To increase the heat resistance of the polymer and of its products, the bifunctional derivatives of pyromellitimide (for instance, N,N'-(bis-ethoxy)pyromellitimide or N,N'-bis-acetylpyromellitimide is used as the modifying addendum.

SUB CODE: 11/ SUBM DATE: 02Jul65

Card 1/1

KHORLIN, A.Ya.; IVANOVA, V.M.

Triterpene saponins. Report No.14: Saponins from Patrinia intermediate (Patrinia intermedia Roem. et Schult.). Izv. AN SSSR Ser. khim. no.2:307-313 '65. (MIRA 18:2)

1. Institut khimii prirodnykh soyedineniy AN SSSR i Pervyy Moskovskiy ordena Lenina meditsinskiy institut.

L 11155-66 EWP(e)/EWT(m)/EWP(b) WH

ACC NR: AP6000347 SOURCE CODE: UR/0286/65/000/021/0043/0043

AUTHORS: Syritskaya, Z. M.; Ivanova, V. M.; Anasovskaya, Z. A.; Moller, E. A.; Tsukanov, A. A.

ORG: none

TITLE: Glass. Class 32, No. 176051 [announced by Gusevskiy Branch of the State Scientific Research Institute of Glass (Gusevskiy filial nauchno-issledovatel'skogo instituta stekla)]

SOURCE: Byulleten' izobreteniy i tovarnykh znakov, no. 21, 1965, 43

TOPIC TAGS: glass, silicon dioxide, alumina, boron compound, magnesium oxide, calcium oxide, sodium oxide, potassium oxide

ABSTRACT: This Author Certificate presents a glass for producing chemically stable products. The glass contains SiO_2, Al_2O_3, B_2O_3, MgO, CaO, Na_2O, and K_2O. To increase its resistance to the action of glucose solution with ascorbic acid, the above components are contained in the following amounts (wt. %): SiO_2 70—74; Al_2O_3 7—9; B_2O_3 2.5—5.5; MgO 1—3.5; CaO 1—2; Na_2O 6—7.5; K_2O 1.5—2; and also 2—5% of La_2O_3.

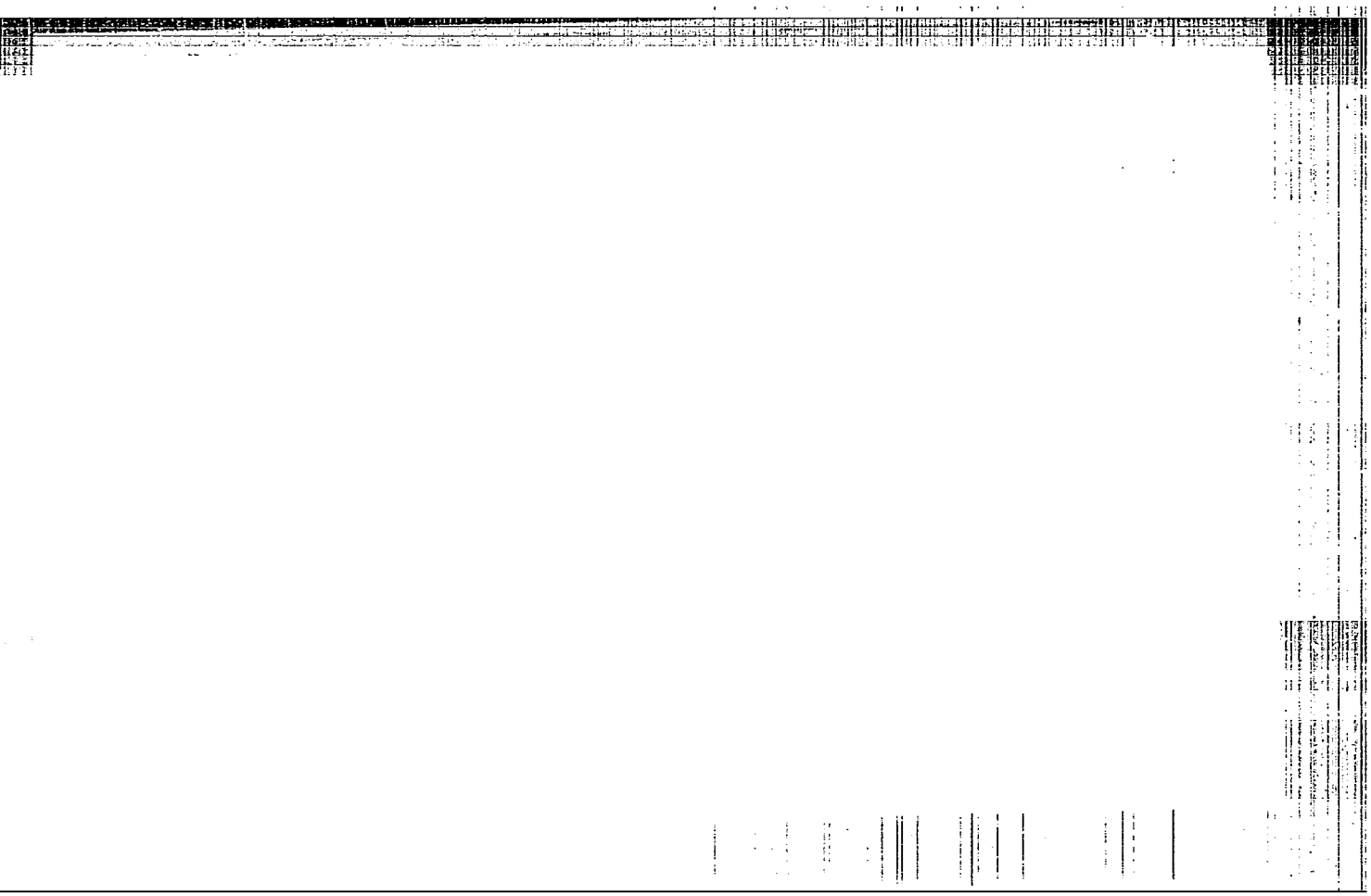
SUB CODE: 11/ SUBM DATE: 20Jun64

Card 1/1 UDC: 666.117.4

V N IVANOVA, YE [illegible] OSTAPCHENKO and YE S ZHMUD'

"Roentgen Investigations of the Structure of Tantalates and Preliminary Results of Their Application to Metal-Capillary Cathodes" from Annotations of Works Completed in 1955 at the State Union Sci. Res. Inst. Min. of Radio Engineering Ind.

So: B-3,080,964



APPROVED FOR RELEASE: 08/10/2001 CIA-RDP86-00513R000619230003-7"

TOPOLYANSKAYA, S.I.; FEDOROVA, O.A.; NUKHNAREVICH, A.F.; BRONSHTEYN, N.B.; GRINBERG, TS.B.; NIKOLAYEVA, K.G.; SPERANSKAYA, K.I.; IVANOVA, V.M.; KISELEVA, V.P.; VIL'SHANSKAYA, F.L.; MATVEYEVA, V.N.

Finds of Salmonella reading. Zhur. mikrobiol. epid. i immun. 32 no.7:123 Je '61. (MIRA 15:5)

1. Iz sanitarno-epidemiologicheskoy stantsii Kalininskogo rayona Moskvy i Moskovskoy gorodskoy sanitarno-epidemiologicheskoy stantsii.
(SALMONELLA READING)

IVANOVA, V N.

PHASE I BOOK EXPLOITATION 1123

Leningrad. Vsesoyuznyy institut rasteniyevodstva. Otdel agrometeorologii

Zasukhi v SSSR, ikh proiskhozhdeniye, povtoryayemost' i vliyaniye na urozhay (Droughts in the USSR, Their Origin, Frequency, and Effect on Crops) Leningrad, Gidrometeoizdat, 1958. 206 p. 3,500 copies printed.

Ed. (Title page): Rudenko, A.I., Candidate of Agricultural Sciences; Ed. (Inside book): Ushakova, T.V.; Tech. Ed.: Flaum, M.Ya.

PURPOSE: This book is intended for agrometeorologists of the hydrometeorological service, agronomists on collective and state farms and machine-tractor stations, specialists working in agricultural scientific research institutions, as well as students and teachers in agricultural and hydrometeorological tekhnikums and vuzes.

COVERAGE: This book, a collection of articles by members of the Agrometeorological Division of the All-Union Plant Cultivation Institute, presents contemporary thought on various aspects of drought phenomena. Drought origin and causes, types, frequency of occurence, periodicity, and effect on various

Card 1/4

Droughts in the USSR, Their (Cont.) 1123

agricultural crops are discussed. A geographical distribution of drought stricken areas of the USSR is also given. The text is accompanied by maps, diagrams, tables, and bibliographic references.

TABLE OF CONTENTS:

Card 2/4

AVAILABLE: Library of Congress

MM/mfd
1-23-59

IVANOVA, V. N., Cand Agri Sci — (diss) — "The role of the previous mentor (root stock) in forming the characteristics of apple trees," Michurinsk, 1960, 14 pp, 100 cop. (Fruit and Vegetables Institute im I. V. Michurin) (KL, 44-60, 131)

IVANOVA, V.N., uchitel'nitsa

Effect of grafting on leaf color of the apple tree. Biol. v shkole no.5:82-84 S-O '60. (MIRA 13:11)

1. Shkola No.9 g Michurinska.
(Grafting) (Color of leaves) (Apple)

AUTHOR: Ivanova, Y. N.

TITLE: Nitration of Thenylated Thiophene [illegible]

PERIODICAL: [illegible]

ABSTRACT: [illegible] thiophenes, not regarding their nitrogen derivatives, belong to the little investigated fields in the chemistry of thiophene. An exception is represented by [illegible] thiophene which was investigated in detail by [illegible]. The author selected for this investigation of 2- and 3-[illegible] thiophene. Her attention concentrated on the method [illegible] of these two compounds. The usual methods of nitration did not supply sufficiently good results. Only when copper nitrate was used as nitration medium in acetic anhydride (ref 4) this reaction took a calm course, supplying a [illegible] nitroproducts. In the nitration of 2-thenyl thiophene a sufficiently uniform crystalline product [illegible] melting [illegible] resulted. The analysis corresponded to a

Card 1/2

Nitrogen Compounds of [illegible]enylated Thiophene Derivatives I. 79-28-5-22/49

mononi[illegible] thiophene. The nitration of [illegible]phenyl thiophene led to the formation of two products. The [illegible] melted at [illegible], the other (20-30 %) at 98-[illegible]. The analysis showed a mononitro compound of [illegible]phenylthiophene. Thus it was found that the nitration reaction of the two thiophenes takes place in two directions (see the two reaction schemes 1 and 2 on page 1233). Synthetic[illegible] [illegible]-nitro-[illegible]-phenylthiophene; [illegible]-nitro-β-phenyl thiophene; [illegible]-nitro-β-phenyl thiophene; (p-Ni[illegible]) [illegible]-phenyl thiophene and [illegible]-amino-β-p[illegible] thiophene (the latter two in form of complex salts with tin chloride). It was shown that the amines of α- and β-[illegible] thiophene form complex salts with tin chloride can be used [illegible] reactions, a nitrogen coupling, as well as for other nitrogen reactions. There are 5 references, 3 of which are Soviet.

ASSOCIATION: Kuybyshevskiy industrial'nyy institut (Kuybyshev Industrial Institute)

SUBMITTED: [illegible]

Card 2/2

AUTHOR: Ivanova, V. N.

TITLE: Spectral Absorption Curves of α- and β-phenylthiophenes and Their Nitrocompounds. II (Spektral'nyye krivyye pogloshcheniya α- i β-fenilтiofenov i ikh nitrosoyedineniy. II)

PERIODICAL: Zhurnal Obshchey Khimii, 1958, Vol. 28, No. [illegible] pp. 1238-1240 (USSR)

ABSTRACT: For the more complete characteristic of the nitrocompounds of α- and β-phenylthiophene (ref 2) synthetized by the author, as well as for determining the deviations in the spectral absorption curves of isomeric nitrocompounds of these thiophenes the author used a molecular spectral analysis. The curveswere plotted for α- and β-phenylthiophene, α'-nitro-α-phenylthiophene, β'-nitro-α-phenylthiophene, for a mixture of isomeric nitro compounds of β-phenylthiophene and α-nitro-β-phenylthiophene. In the analysis of the obtained curves the absorption spectra of diphenyl and of its mononitro derivatives were used. The comparison of the absorption curves of α- and β-phenylthiophene with that of their aromatically analogous compound.

Card 1/5

the diphenyl, proves that the common look of the maximal contours is the same for all three compounds, but that the substitution of the benzene ring in diphenyl, by that of thiophene causes a displacement of the absorption maximum to the side of the great wave lengths (fig 1). The comparison of the absorption spectra of o-,m- and p-nitrocompounds of diphenyl shows that the absorption curves have a different look depending on the position of the nitro group (fig 2) Thus the absorption is caused by the different groupings of the atoms (see NO_2-scheme) Analogous phenomena are observed in the analysis of the spectral absorption curves of isomeric nitrocompounds of α-phenylthiophene (fig. 3). By the different position of the nitro group in the thiophene ring the deviations of the curves are caused. The taking of the spectra of the nitrocompounds of β-phenylthiophene showed a completely different picture Earlier (ref 2) it was reported that a separation of these compounds was not reached by crystallization. The not separated mixture of the isomeric nitrocompounds was taken in one case, and the

Spectral Absorption Curves of α- and β-Phenylthiophenes and Their Nitrocompounds II

79-28-5-23/69

the α'-nitro-β-phenylthiophene in the other case for the taking of the absorption spectra. It turned out that both of them showed the same type of contours (fig. 4) which points to the fact that in both cases there is present one and the same product, i.e.: α'-nitro-β-phenylthiophene. There are 4 figures and 2 Soviet references.

ASSOCIATION: Kuybyshevskiy Industrial'nyy institut (Kuybyshev Industrial Institute)

SUBMITTED: January 29, 1957

Card 3/3

IVANOVA, V.N.; MIKHAYLOVA, M.I.; POPOVA, R.S.

Interaction of α,β-unsaturated ketones with aliphatic organomagnesium compounds. Zhur. ob. khim. 34 no.9:3109-3110 S '64. (MIRA 17:11)

IVANOV, V.N., Cand Chem Sci —(diss) "Nitroso compounds of phenylated derivatives of thiophene." Kuybyshev, 1959. 9 pp with drawings (Kuybyshev Industrial Inst i V.V. Kuybyshev), 150 copies (KL,30-59, 117)

ZAYKOVSKIY, F.V.; IVANOVA, V.N.

Refining of the method for synthesizing arsenazo III. Zhur.anal.khim. 18 no.8:1030 Ag '63. (MIRA 16:12)

1. All-Union Scientific-Research Institute of Mineral Raw Materials, Moscow.

FURTOVA, Ye.V.; SADOVA, G.F.; ZAYKOVSKIY, F.V.; IVANOVA, V.N.

Photometric determination of the sum of rare earth elements in natural substances. Zhur. anal.khim. 18 no.12:1464-1467 D '63. (MIRA 17:4)

FURTOVA, Ye.V.; SADOVA, G.F.; IVANOVA, V.N.; ZAYKOVSKIY, F.V.

Photometric determination of thorium in natural materials with the use of arsenazo III. Zhur. anal. khim. 19 no. 1: 94-96 '64. (MIRA 17:5)

YEGOROVA, V.S.; IVANOVA, V.N.; FUTOKRIN, K.I.

Thienyl aldehyde and its derivatives. Zhur. ob. khim. 34 no.12: 4084-4086 D '64 (MIRA 18:1)

1. Kuybyshevskiy politekhnicheskiy institut.

IVANOVA, V.P.

GORYAYNOV, K.E., doktor tekhn.nauk; MIKHAYLOV, A.V., dots.; GORBACHEV, D.Ye., kand.tekhn.nauk; IVANOVA, V.P., kand.tekhn.nauk; RUBETSKAYA, T.V., kand.tekhn.nauk; TRINKER, B.D., kand.tekhn.nauk; GORCHAKOV, A.V., ovetstvennyy red.; GLUSSKIY, Ya.A., nauchnyy red.; VASILEVSKIY, B.A., tekhn.red.

[Recommencations for making precast reinforced concrete structures from stiff concrete mixtures] Rekomendatsii po tekhnologii izgotovleniia sbornykh zhelezobetonnykh konstruktsii iz zhestkikh betonnykh smesei. Moskva, TSentr. biuro tekhn.inform., 1957. 45 p. (MIRA 11:5)

1. Russia (1917- R.S.F.S.R.) Ministerstvo stroitel'stva. Tekhnicheskoye upravleniye. 2. Laboratoriya betonov i rastvorov NII-200 Ministerstva stroitel'stva RSFSR (for Mikhaylov, Gorbachev, Ivanova, Rubetskaya, Trinker). 3. Rukovoditel' laboratoriey betonov i rastvorov NII-200 Ministerstva stroitel'stva RSFSR (for Goryaynov)

(Precast concrete construction)

Ivanova V.P.

RODYAKIN, N.F., dotsent; MOZHAR, B.S., kandidat meditsinskikh nauk; YURKEVICH, A.Ya., kandidat meditsinskikh nauk; BOBROV, S.M., mladshiye nauchnye sotrudniki; RUSTAYEVA, T.P.; KURBANOV; vrach; IVANOVA, V.P., fel'dsher.

Prevention of suppurative skin diseases among cotton workers. Vest.ven. i derm. no.4:16-18 Jl-Ag '55. (MLRA 8:12)

1. Iz Turkmenskogo nauchno-issledovatel'skogo kozhno-venerologicheskogo instituta (dir.-dotsent N.F.Rodyakin)

(PYODERMA, prevention and control, in cotton workers)
(OCCUPATIONAL DISEASES, pyoderma in cotton workers, prev.)

IVANOVA, V.P.

Physical prophylactic work among pregnant women. Zdrav.Bel. no.3:8-9 '62. (MIRA 15:5)

1. Minskiy gorodskoy rodil'nyy dom (glavnyy vrach A.I. Bogdanova), akushersko-ginekologicheskaya klinika Belorusskogo instituta usovershenstvovaniya vrachey (zaveduyushchiy kafedroy - dotsent I.S. Legenchenko).

(PRENATAL CARE)

SOV/20-124-3-55/67

17(3)
AUTHORS: Deborin, G. A., Bystrova, M. I., Ivanova, V. P.

TITLE: Changes in the Proteolysis Process of Serum Albumin Caused by Tripsin in the Formation of Complexes of the Ferment or of the Substrate With Estradiol (Izmeneniye khoda proteoliza syvorotochnogo al'bumina tripsinom pri obrazovanii kompleksov fermenta ili substrata s estradiolom)

PERIODICAL: Doklady Akademii nauk SSSR, 1959, Vol 124, Nr 3, pp 685-687 (USSR)

ABSTRACT: On a previous occasion (Refs 1-3), the authors had proved that the unstable complexes of certain proteins are more stable to various influences than are the initial proteins. Estradiol, too, is one of the water-insoluble sterols that can combine with serum albumin outside the organism (average: 0.43 mol estradiol per 1 molecule protein)(Ref 4). For this reason, the authors investigated the estradiol linkage to proteins under the same conditions under which the linkage with ergosterol took place. An investigation was made into the changes which cause the complex formation of the ferment or of the substrate with estradiol in the proteolysis of serum albumin. It was found that, analogous to ergosterol, estradiol forms unstable complexes with proteins which participate in the proteolytic process. Thus the proteolytic process is slowed down, and the

Card 1/3

Changes in the Proteolysis Process of Serum Albumin Caused by Trypsin in the Formation of Complexes of the Ferment or of the Substrate With Estradiol

splitting intensity of the substrate by the ferment is reduced. This result can be naturally explained by the fact that the complex formation stabilizes the protein against influences which disturb the protein structure. In the formation of the complex of a proteolytic ferment with sterol, the activity of the ferment in the complex is higher than the activity of the initial ferment. In the opinion of the authors, this phenomenon can be explained by the fact that, as a consequence of the complex formation, the ferment is more resistant to the disactivation resulting from its denaturation and autodigestion. These data confirm the view that the complex formation of proteins with lipoids constitutes one of the factors that control the enzymatic processes within the cell.- There are 4 figures and 6 references, 4 of which are Soviet.

ASSOCIATION: Institut biokhimii im. A. N. Bakha Akademii nauk SSSR (Institute of Biochemistry imeni A. N. Bakh of the Academy of Sciences, USSR)

IVANOVA, V. P., MKRTUMOVA, N. A., DEBORIN, G. A., and BARANOVA, V. Z.
(USSR)

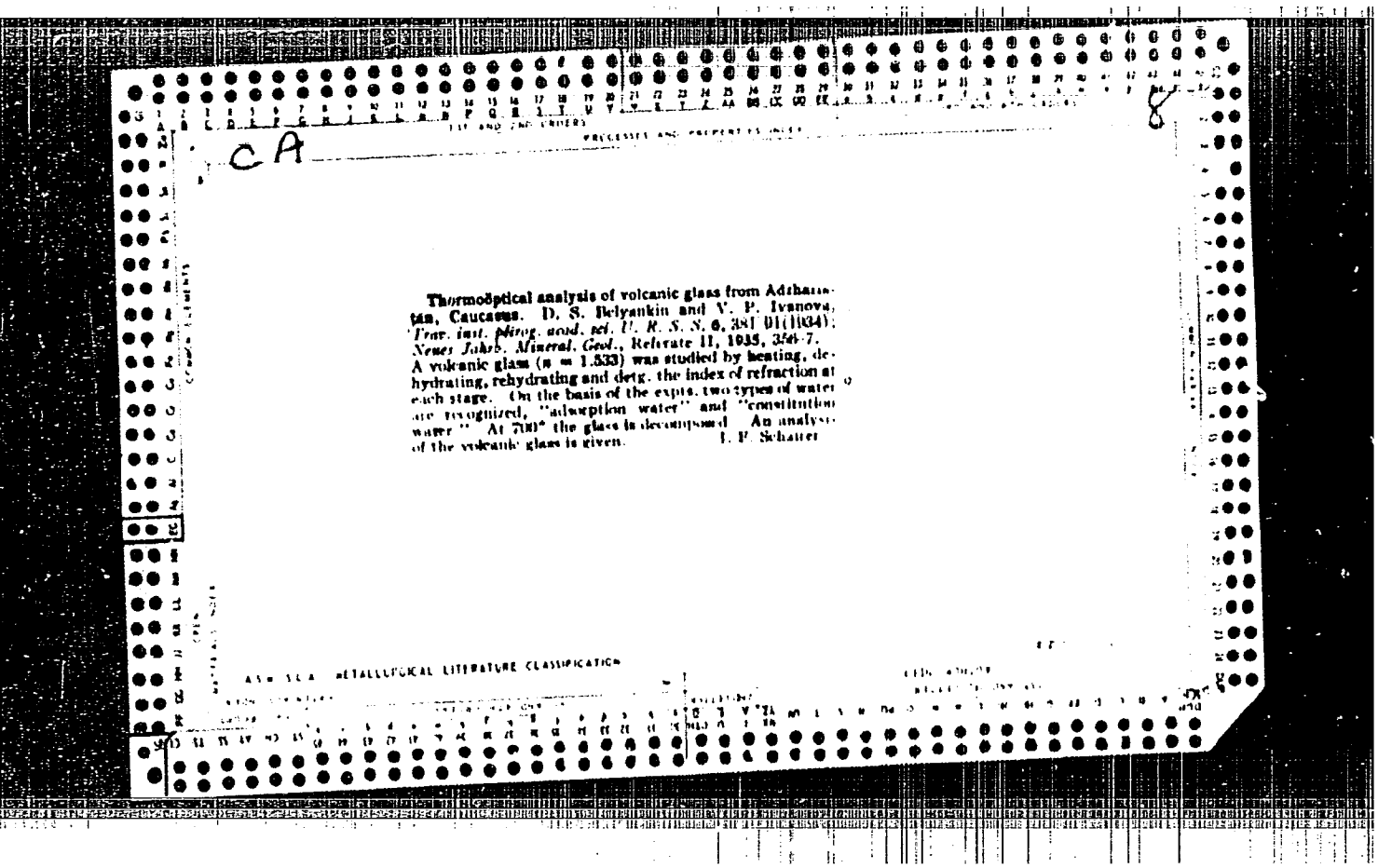
"The Controlling Effect of the Combination of Proteins with Sterols and Nucleic Acid and of Adsorption Phenomena in the Course of some Enzymic Processes (read by title).

Report presented at the 5th International Biochemistry Congress, Moscow, 10-16 Aug 1961

PISHCHALOV, S.S.; DOBREV, T.B.; IVANOVA, V.P.

Basic characteristics of changes in the physical properties of rocks and ores in southern Bulgaria. Izv. vys. ucheb. zav.; geol. i razv. 8 no. 12:103-112 D '65 (MIRA 19:1)

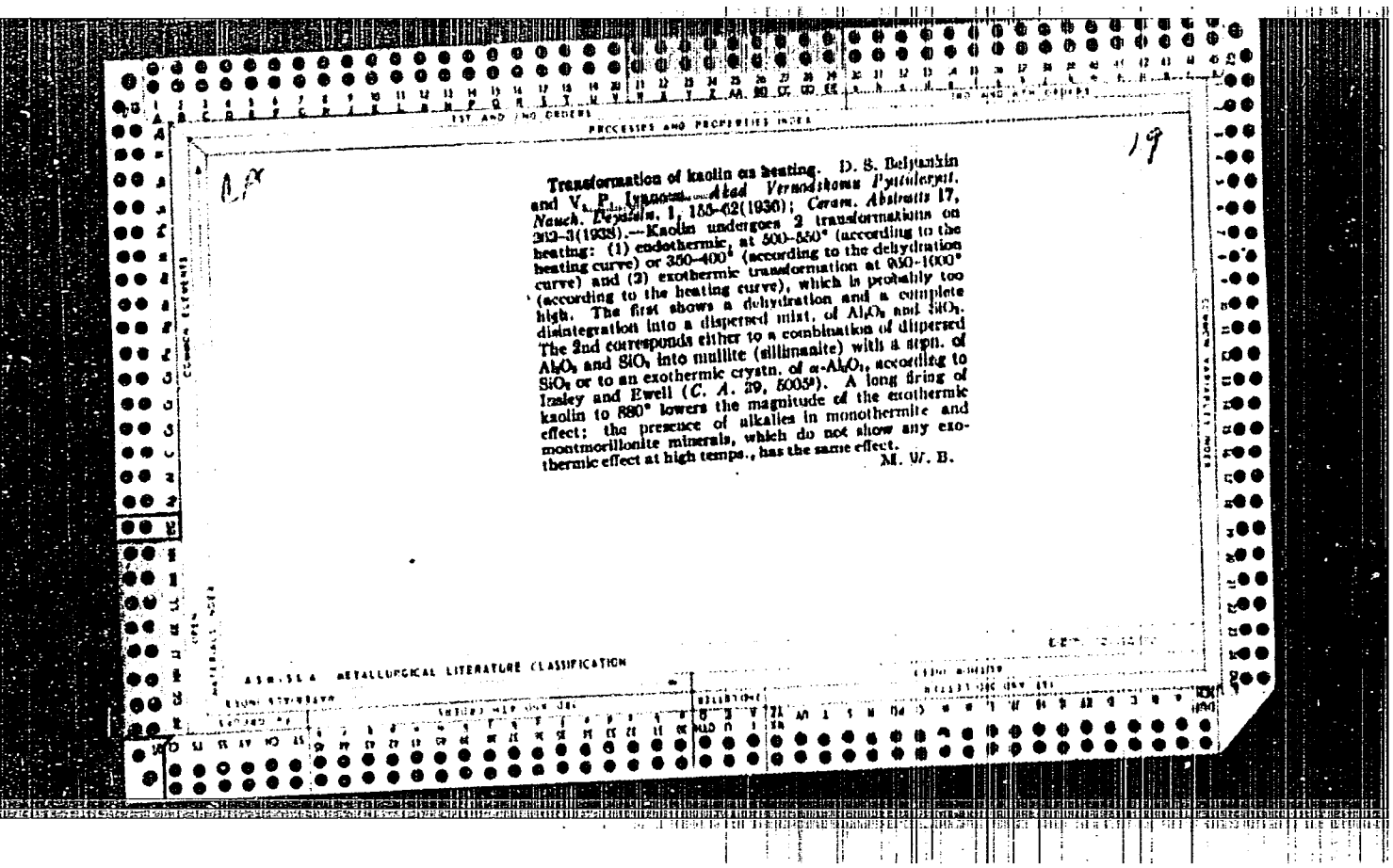
1. Sofiyskiy vysshiy gornogeologicheskiy institut, Bolgariya.



CA

Thermooptical analysis of volcanic glass from Adzharistan, Caucasus. D. S. Belyankin and V. P. Ivanova, *Trav. inst. phing. acad. sci. U. R. S. S.* 6, 381-91(1934); *Neues Jahrb. Mineral. Geol.*, Referate II, 1935, 356-7. A volcanic glass ($n = 1.533$) was studied by heating, dehydrating, rehydrating and detg. the index of refraction at each stage. On the basis of the expts. two types of water are recognized, "adsorption water" and "constitution water." At 700° the glass is decomposed. An analysis of the volcanic glass is given. I. P. Schairer

ASM SLA METALLURGICAL LITERATURE CLASSIFICATION



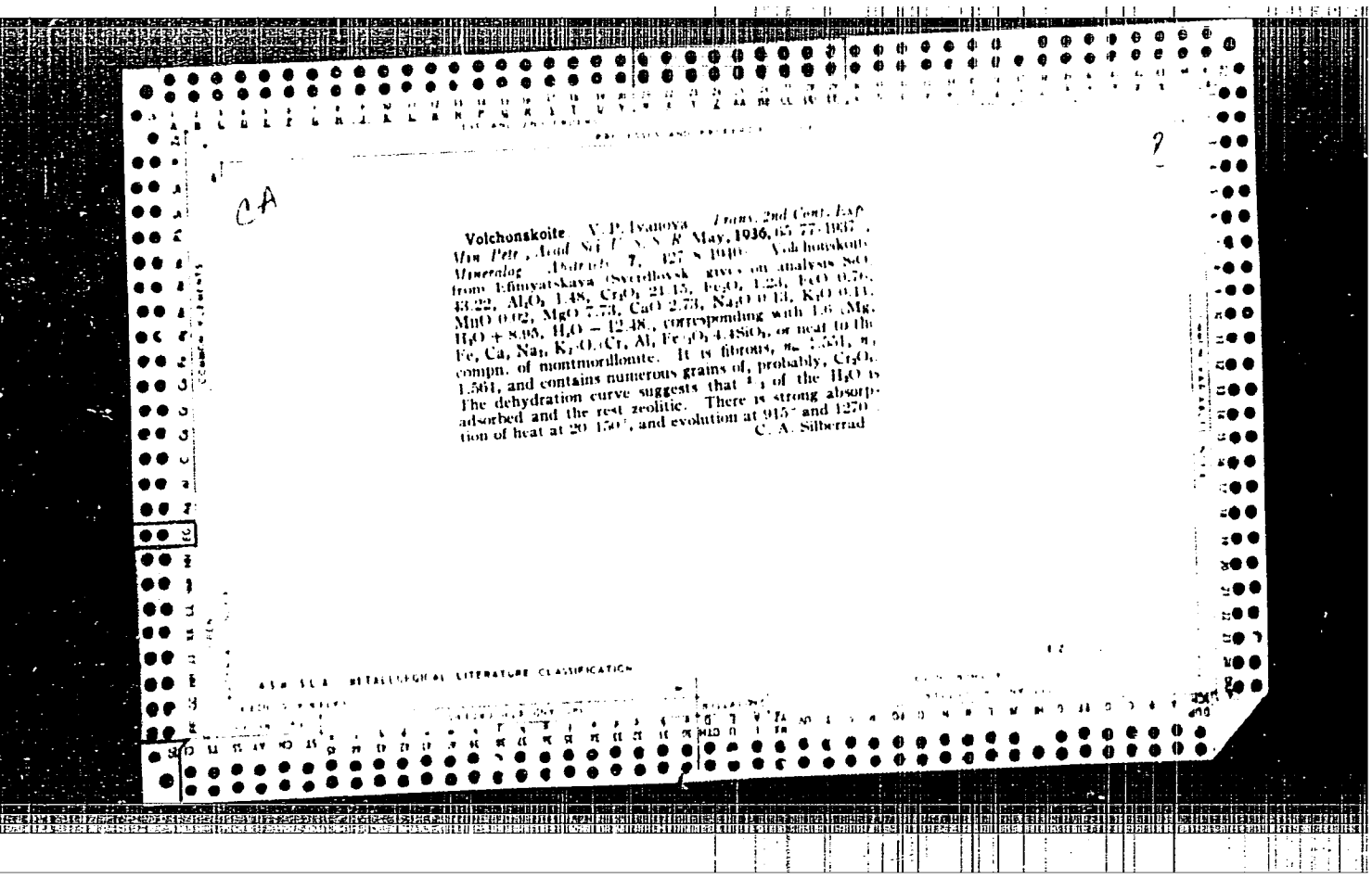
PROCESSES AND PROPERTIES INDEX

19

Transformation of kaolin on heating. D. S. Beljankin and V. P. Ivanova. *Akad. Vernadskoma Pyatidesyat. Nauch. Deyatelm.* 1, 155–62(1936); *Ceram. Abstracts* 17, 202–3(1938).—Kaolin undergoes 2 transformations on heating: (1) endothermic, at 500–550° (according to the heating curve) or 350–400° (according to the dehydration curve) and (2) exothermic transformation at 950–1000° (according to the heating curve), which is probably too high. The first shows a dehydration and a complete disintegration into a dispersed mixt. of Al_2O_3 and SiO_2. The 2nd corresponds either to a combination of dispersed Al_2O_3 and SiO_2 into mullite (sillimanite) with a segn. of SiO_2 or to an exothermic crystn. of α-Al_2O_3, according to Insley and Ewell (*C. A.* 29, 5005). A long firing of kaolin to 880° lowers the magnitude of the exothermic effect; the presence of alkalies in monothermite and montmorillonite minerals, which do not show any exothermic effect at high temps., has the same effect.

M. W. B.

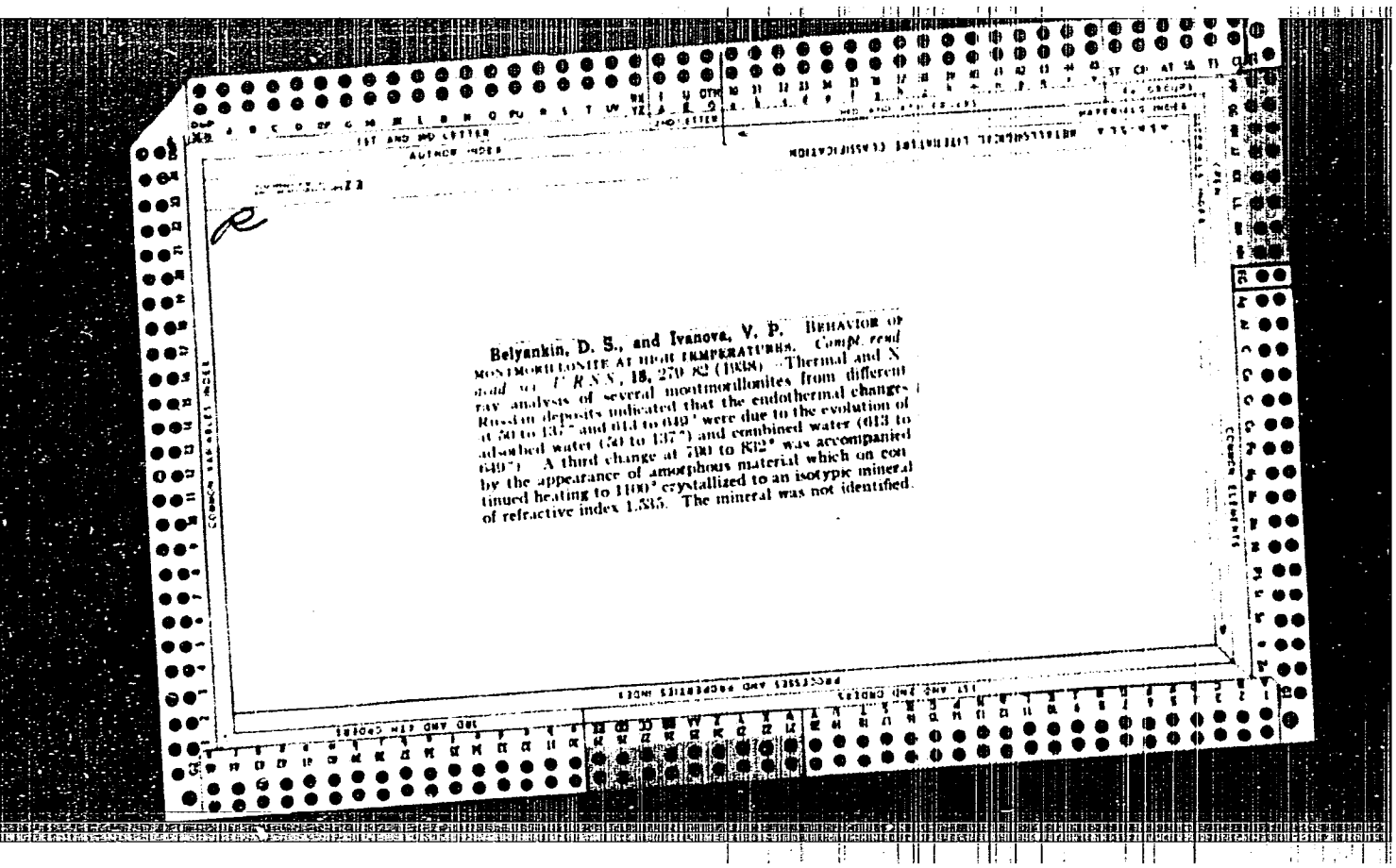
ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION



CA

Volchonskoite V. P. Ivanova *Trans. 2nd Conf. Exp. Min. Petr., Acad. Sci. U.S.S.R.* May, 1936, 65–77; *Mineralog. Abstracts* 7, 127–8 (1940). Volchonskoite from Ilfimyatskaya (Sverdlovsk) gives on analysis SiO$_2$ 43.22, Al_2O_3 1.48, Cr_2O_3 24.15, Fe_2O_3 1.24, FeO 0.56, MnO 0.02, MgO 7.73, CaO 2.73, Na_2O 0.13, K_2O 0.11, H_2O + 8.95, H_2O − 12.48, corresponding with 1.6 (Mg, Fe, Ca, Na_2, K_2O)$_2$(Cr, Al, Fe)$_2O_3$·4SiO$_2$, or near to the compn. of montmorillonite. It is fibrous, n_α 1.551, n_γ 1.561, and contains numerous grains of, probably, Cr_2O_3. The dehydration curve suggests that ½ of the H_2O is adsorbed and the rest zeolitic. There is strong absorption of heat at 20–150°, and evolution at 915° and 1270°.

C. A. Silberrad



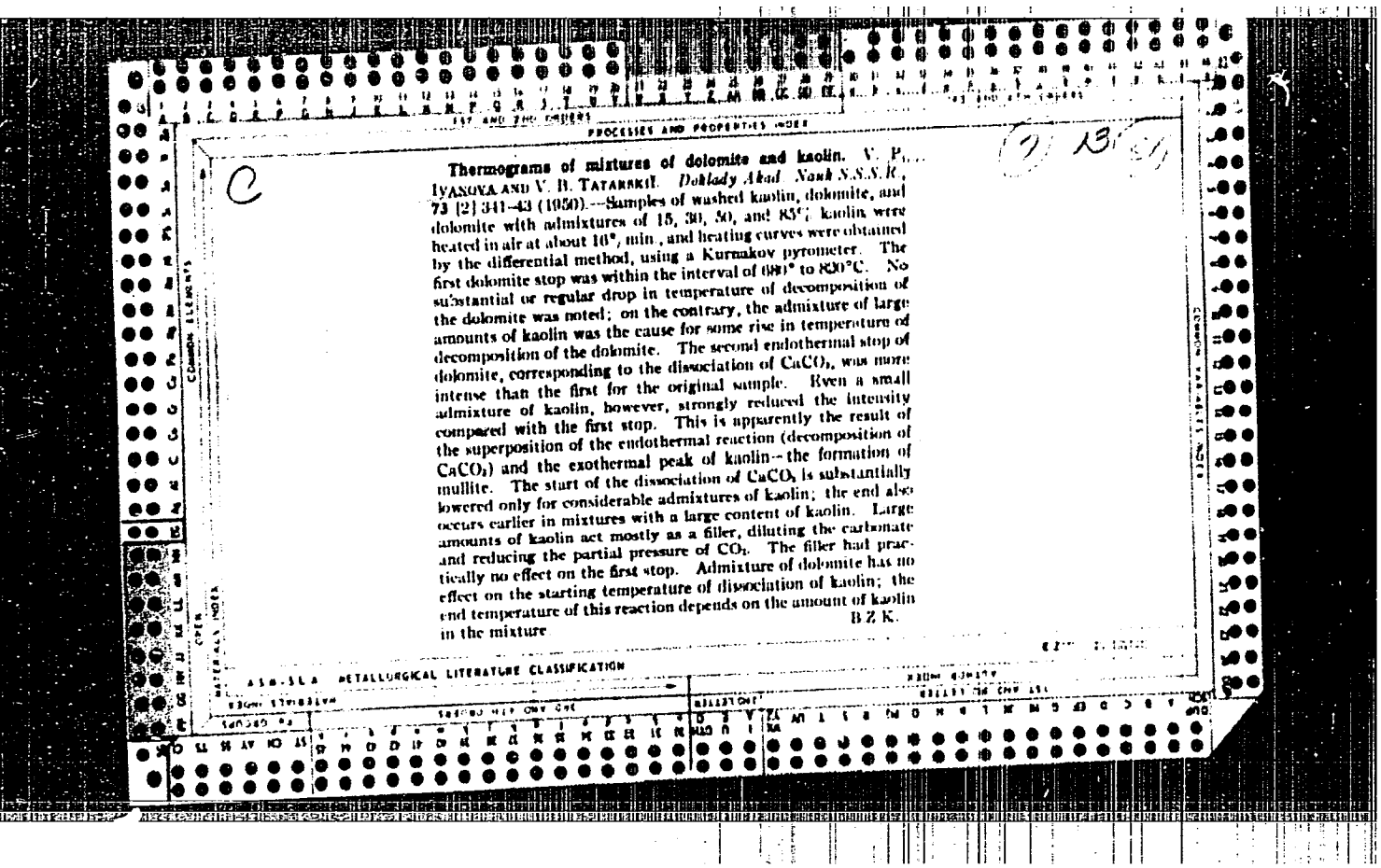
Belyankin, D. S., and Ivanova, V. P. BEHAVIOR OF MONTMORILLONITE AT HIGH TEMPERATURES. *Compt. rend. acad. sci. U.R.S.S.*, 18, 279-82 (1938). Thermal and X-ray analysis of several montmorillonites from different Russian deposits indicated that the endothermal changes at 50 to 137° and 613 to 649° were due to the evolution of adsorbed water (50 to 137°) and combined water (613 to 649°). A third change at 700 to 832° was accompanied by the appearance of amorphous material which on continued heating to 1100° crystallized to an isotypic mineral of refractive index 1.535. The mineral was not identified.

IVANOVA, V. P.

1ST AND 3RD LETTER | 2ND LETTER | 2ND AND 4TH CRISIS

AUTHOR INDEX

Ivanova, V. P. THERMAL PROPERTIES OF SOME MINERALS OF THE ANHYDROUS ALUMINO-SILICATE AND MAGNESIUM SILICATE GROUPS. *Trudy Ivt'ego Soveshchaniya Ekspil. Mineral. i Petrog., Inst. Geol. Nauk, Akad. Nauk S.S.S.R.*, 1940, 116-25.—The thermal properties and heating curves of kaolin, halloysite, ferrihalloysite, allophane, pyrophyllite, montmorillonite, volkonskoite, talc, serpentine, sepiolite, leuchtenbergite, and palygorskite are given. The data can be used for systematizing aqueous Mg silicates and aluminosilicates. Results of thermal studies indicate a sharp difference between pyrophyllite and montmorillonite. A number of new minerals found in the U.S.S.R. (gruzinskite, askanite, gumbrin, and the Azerbaidzhan gilyabi) are included in the montmorillonite group.



PROCESSES AND PROPERTIES INDEX

Thermograms of mixtures of dolomite and kaolin. V. P. IVANOVA AND V. B. TATARSKII. *Doklady Akad. Nauk S.S.S.R.*, 73 [2] 341–43 (1950).—Samples of washed kaolin, dolomite, and dolomite with admixtures of 15, 30, 50, and 85% kaolin were heated in air at about 10°/min., and heating curves were obtained by the differential method, using a Kurnakov pyrometer. The first dolomite stop was within the interval of 680° to 830°C. No substantial or regular drop in temperature of decomposition of the dolomite was noted; on the contrary, the admixture of large amounts of kaolin was the cause for some rise in temperature of decomposition of the dolomite. The second endothermal stop of dolomite, corresponding to the dissociation of $CaCO_3$, was more intense than the first for the original sample. Even a small admixture of kaolin, however, strongly reduced the intensity compared with the first stop. This is apparently the result of the superposition of the endothermal reaction (decomposition of $CaCO_3$) and the exothermal peak of kaolin—the formation of mullite. The start of the dissociation of $CaCO_3$ is substantially lowered only for considerable admixtures of kaolin; the end also occurs earlier in mixtures with a large content of kaolin. Large amounts of kaolin act mostly as a filler, diluting the carbonate and reducing the partial pressure of CO_2. The filler had practically no effect on the first stop. Admixture of dolomite has no effect on the starting temperature of dissociation of kaolin; the end temperature of this reaction depends on the amount of kaolin in the mixture.

B Z K.

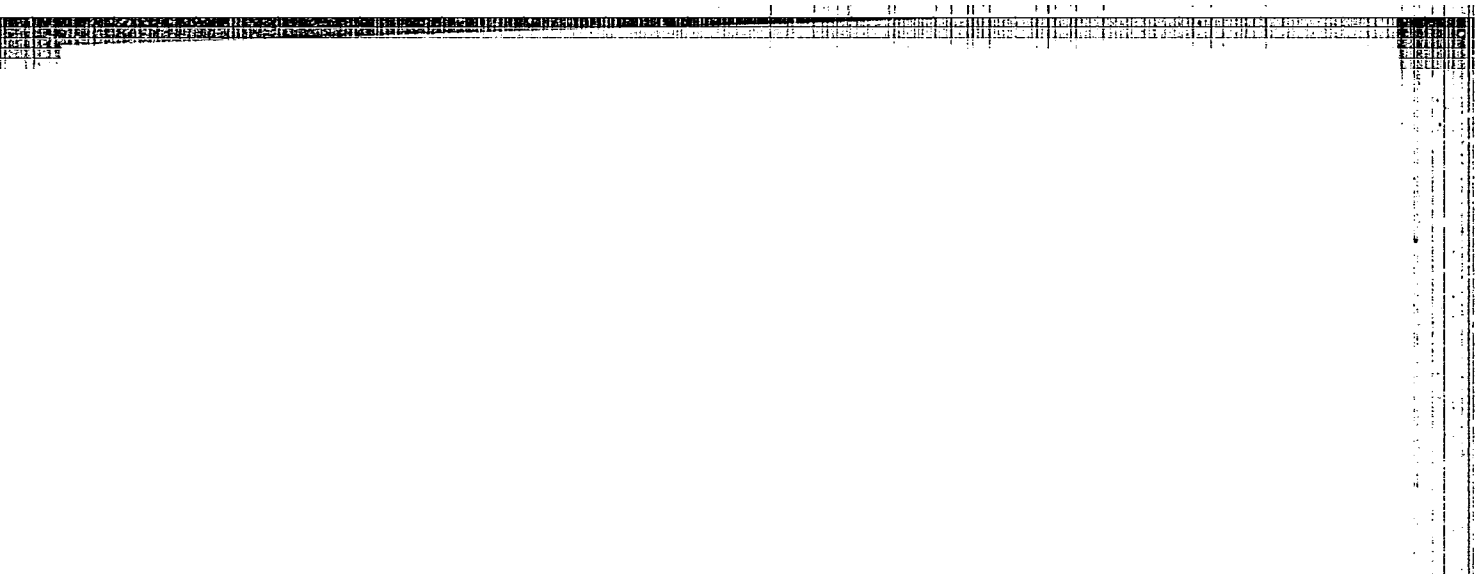
A 50-SLA METALLURGICAL LITERATURE CLASSIFICATION

USSR

Chlorites and hydromicas from Krivoi Rog. Yu. I. Pidovinkina and V. P. Ivanova. *Voprosy Petrog. i Mineral. Akad. Nauk S.S.S.R.* 2, 161-81(1963).—The formation of chlorite minerals in the Fe-ore deposits of Krivoi Rog shows these not only as typical products of an intense metamorphism but also of a progressive diaphthoresis (retrometamorphosis). The chloritization progresses in a very characteristic relation to the chem. character of the surrounding rocks, with a remarkably good preservation of the external forms of the original minerals. It is thus possible to establish in every case from which primary mineral chlorites have been derived. Biotite, cummingtonite, amphibole, and garnet are chiefly changed to chlorites. In the middle and upper sections of the metamorphic complex of Krivoi Rog the chlorites are ferruginous aphrosiderite and thuringite. Mg chlorite, e.g., prochlorite, and chemically intermediate chlorites, e.g., ripidolite, are observed only in the so-called talc horizon which is particularly high in Mg because it is derived from ultrabasic effusive rocks. Aphrosiderite is the special replacement product of biotite and cummingtonite; thuringite is formed in the progressive metamorphism and also grows on biotite. All of the chlorites are identifiable by differential-thermal analysis, which is particularly suitable for complex mineral assocns. Optical data are also given. These thuringites show a higher birefringence, and also a higher alkali content (up to 4.5%) than usual. On the differential-thermal curves the exothermic reactions are observed in the range 700-800° which correspond to an oxidation of FeO in the mineral. Such hydromicas grown on

biotite or garnet, or on fissures, were identified in the chloritized rocks. These hydromicas contain Na_2O but are not yet sufficiently characterized. The surprising alkali content of the thuringites is explained by the intergrown [illegible] mica. The optical description of the peculiar ripidolite from amphibole chlorite rocks contg. albite, hematite, and carbonates is interesting because of its unusual pleochroism in green and orange-yellow. Such a phenomenon is [illegible] observed in chlorites of Ni-bearing deposits, the present ripidolite shows in the spectral analysis distinct Ni and V contents. A chem. analysis is given of the Fe-rich variety of aphrosiderite (with 24.30% FeO; 5.80% Fe_2O_3; very low birefringence; β = 1.650), also intergrown with tobacco-brown biotite. Its content in Na_2O(1.20%) and K_2O(2.20%) indicates the intimate intergrowth of both minerals. For the thuringite β varies between 1.654 and 1.663, the birefringence from 0.006 to 0.010, and in those derived from biotite even 0.020. The chem. analyses therefore show besides FeO (up to 32%) and Fe_2O_3 (up to 10%) considerable alkali contents, e.g. 1.66% and even 4.26% K_2O, but little Na_2O. The fine scaly, greenish hydromica shows $\gamma = \beta$ = 1.603-1.647, α = 1.573-1.632; 2v = 0 - 30°, optically neg. The chem. analysis shows up to 4.2% K_2O; 0.70% Na_2O, tobacco brown "hydrobiotite" only 1.48% K_2O, but 3.24% [illegible] and the type formula [illegible]

W. Eitel



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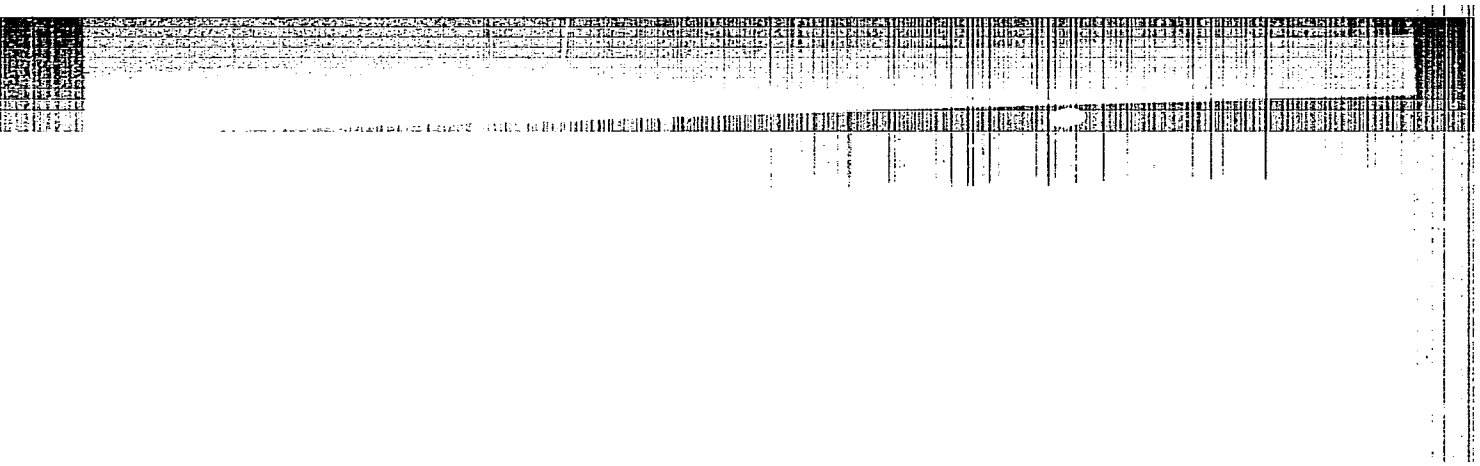

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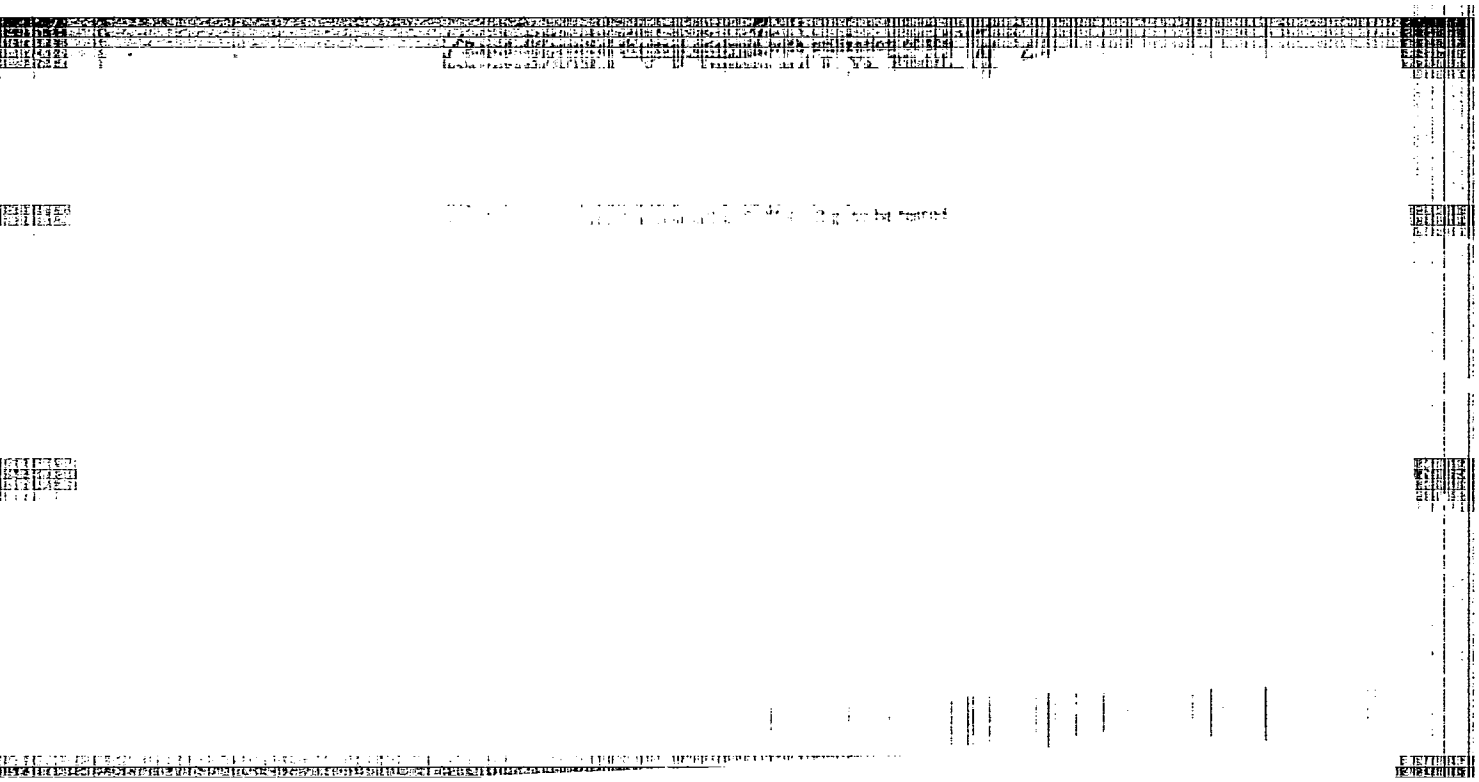

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Ivanova, V. P.

Category: USSR/Fitting Out of Laboratories. Instruments, Their Theory, H. Construction and Use.

Abs Jour: Referat Zhur-Khimiya, No 9, 1957, 31162

Author : Ivanova V. P., Bindul' F. Ya.
Inst : Ministry of Geology and Management of Mineral Resources
Title : Accelerated Differential Microthermal Analysis by the Use of SGM-8 Polarograph.

Orig Pub: Sb. nauch.-tekhn. inform. M-vo geol. i okhrany nedr, 1955, No 1, 132-133

Abstract: See RZhKhim, 1956, 16347.

Card : 1/1

-21-

IVANOVA, V.P.

BINDUL', F.Ya.; IVANOVA, V.P.; TALDYKIN, S.I.

Improved design of the BIT-3 electromagnet for isolation monomineral fractions. Inform.sbor. VSEGEI no.1:145-146 '55. (MLRA 9:12)

(Electromagnets) (Mineralogy, Determinative)

IVANOVA, V. P. and F. Ya. BINDUL'

"Attachment for an SGM-8 Polarigraph for Accelerated Microthermal Analysis by the Differential Heating Curves Method" p. 72

"[illegible]

Transactions of the Fifth Conference on Experimental and Applied Mineralogy and Petrography, Trudy ... Moscow, Izd-vo AN SSSR, 1958, 516pp.

Reports of reports presented at conf. held in Leningrad, 25-31 Mar 1956. The purpose of the conf. was to exchange information and coordinate the activities in the fields of experimental and applied mineralogy and petrography, and to discuss the increasing complexity of practical problems.

20-119-1-42/52

AUTHORS: Ivanova, V. P., Kornilov, N. A.

TITLE: Asbestiform (Transverse Fibrous) Chlorite From a Copper-Nickel Deposit (Asbestovidnyy (poperechnovoloknistyy) khlorit iz medno-nikelevogo mestorozhdeniya)

PERIODICAL: Doklady Akademii Nauk SSSR, 1958, Vol. 119, Nr 1, pp. 154-157 (USSR)

ABSTRACT: Scaly aggregate-forms are characteristic of the minerals of the chlorite-group; asbestiform ones are unknown. In similar layered chrysolite and endellionitz asbestiform aggregates form a union of individual tubes the walls of which consist of several atomic layers (Reference 1). Therefore the investigation of individual fibers in this chlorite is of interest. It was found in the form of black, small veins in a hydrothermally changed schist at the contact with epigenetic copper-nickel grains of ore which are ge= netically connected with ultrabasic rocks. The mineral can easily be separated in individual small columns or needles which glimmer through dark-green at the edges. Its hardness is 2-2,5 (figure 1). The microscopic struc=

Card 1/4

Asbestiform (Transverse Fibrous) Chlorite From a Copper-Nickel Deposit

ture is described in detail. The chemical composition (table 1) permits to classify the chlorite with the magnesic group; it is placed near the boundary with ferriferous-magnesic chlorites (Reference 2). A crystallochemical formula after recalculation to 18 oxygen atoms is given. Beside the elements mentioned in table 1 Ni, Co, V, Cu, Zn and traces of Be, Ca, Zr and Sr were determined by spectral analysis. The debye crystallogram is very similar to those of scaly chlorites. The comparison of the lattice-parameters, calculated from the interplanar spacings (table 2) was performed. The calculated parameters as compared to the theoretical ones show a considerably higher quantity of the parameter c. The differential curves of heating were obtained according to the method described in reference 4. For the asbestiform chlorite, ground to a different degree of comminution, they are given in figure 3. These curves are dependent on the degree of comminution (References 5, 6). The causes of the stronger projection of the exothermic peak following

the two endothermic effects in the case of a finer comminution of the chlorite deserve a special investigation and discussion, which the authors intend to perform. In order to be able finally to judge on the shape of the elementary particles which form the finest fibers of chlorite they were investigated in the electron-microscope. The particles proved to be scaly. The assumption on the tubular structure of the asbestiform are thus confirmed. At the same time the optical properties of the asbestiform chlorite essentially differ from those of scaly chlorite. According to the type of pleochroism and the position of the axes of the indicatrix the asbestiform chlorite is close to the usual negative chlorites. It differs from the latter by the extremely large angle 2V (-13^{o}). A similar distortion of the optical properties is characteristic of the minerals of the serpentine-group. There are 3 figures, 2 tables and 6 references, 4 of which are Soviet.

IVANOVA, V.P.; BINDUL', F.Ya.

New device for rapid differential thermal analysis. Zap. Vses. min. ob-va 89 no.5:560-564 '60. (MIRA 13:10)

1. Vsesoyuznyy nauchno-issledovatel'skiy geologicheskiy institut (VSEGEI), Leningrad.
(Minerals--Thermal properties)

KUZNETSOV, A.A.; IVANOV, V.P.; [illegible]

Use of thermography for the study of crop rocks in the northwestern part of the Siberian Platform. Dokl. AN SSSR 163 no.2:464-467 Jl '65. (MIRA 18:7)

1. Nauchno-issledovatel'skiy institut geologii Arktiki i Vsesoyuznyy nauchno-issledovatel'skiy geologicheskiy institut. Submitted February 27, 1965.

IVANOVA, V.P.; KORNILOV, N.A.

Effect of the degree of the dispersion of minerals of the serpentinite and chlorite group on their thermal characteristics. Trudy VSEGEI 90:187-201 '63. (MIRA 17:9)

IVANOVA, V.P.; IVANKRATOV, M.A., prof., nauchnyy rukovoditel' raboty

Localization of extinctive inhibition in the cerebral cortex.
Uch. zap. Ped. inst. Gerts. 239:99-107 '64.
(MIRA 18:3)

SLONIM, Fedir Isidorovich [deceased]; [illegible], P.M., retsenzent; RUBCHINSKIY, A.M., nauchn. red.; [illegible], V.P., red.

[Organization of production in an instrument manufacturing enterprise] Organizatsiia proizvodstva na priborostroitel'nom predpriiatii. Leningrad, Mashinostroenie, 19[illegible]. [illegible] p. (MIRA [illegible])

USSR

Changes in the ascorbic acid level of the blood and tissues in skin burns. M. P. Mereshkinskii, E. S. Yedvinskaya, and V. S. Ivanova (Med. Inst., Minsk). *Ukrain. Biokhim. Zhur.* 28, 432–43(1956)(in Russian).—The increase of vitamin C in the daily ration is reflected in its increase in nerve tissue, in the blood, the lungs, and skin. The presence in the diet of substances favoring the deposition of vitamin C enhances such increase in the body organs. In the first phase of burns there is a reduction in the vitamin C content of the tissues which soon stops. In different tissues the dynamics of the change in the vitamin C content is different. A high vitamin intake benefits skin regeneration in guinea pigs suffering from burns. N. S. Levine

IVANOVA, V. S.

USSR/Medicine - Burns

Jul/Aug 53

"Replenishment of Losses of Ascorbic Acid (I) Occuring in Various Organs of Guinea Pigs Subsequently to Burns," M. F. Merezhinskiy, G. L. Taranovich, V. S. Ivanova, Chair of Biochem, Minsk Med Inst

Vop Pit, Vol 12, No 4, pp 6-13

The exptl data obtained indicate that burns covering 1/5-1/4 of the surface of the body of guinea pigs result in a considerable depletion of I in the suprarenals, skin, liver, and muscles. The losses are greatest in the suprarenals and least in the muscles. Administration of I expedited the healing if the burns.

269T37

L 23178-66 EWT(m)/EWA(d)/EWP(k)/EWP(t) JD/HW

ACC NR: AP6005562 SOURCE CODE: UR/0122/65/000/010/0059/0062

AUTHORS: Ivanova, V. S. (Doctor of technical sciences); Terent'yev, V. F. (Engineer)

ORG: none

TITLE: The effect of plastic deformation and subsequent aging on the cyclic strength of steel

SOURCE: Vestnik mashinostroyeniya, no. 10, 1965, 59-62

TOPIC TAGS: metal, metallurgy, aging, fatigue strength, plastic deformation, steel ~~deformation~~/ Armco steel, S4 steel

ABSTRACT: The effect of deformation and aging on the cyclical strength of steel machine parts is studied. Aging which occurs in the process of cyclical loading is the prototype example of deformation aging. The cyclical strength of steel under temperature increase from 200 - 400C reaches a maximum similar to the maximum strength limit under static stressing of steel in the temperature interval of blue brittleness. The effect of the degree of preliminary deformation on the increase of cyclical strength as the result of static deformation aging is shown in Fig. 1. It is concluded from this data that the growth of the degree of preliminary

Card 1/3 UDC: 621.7:620.17

L 23178-66
ACC NR: AP6005562

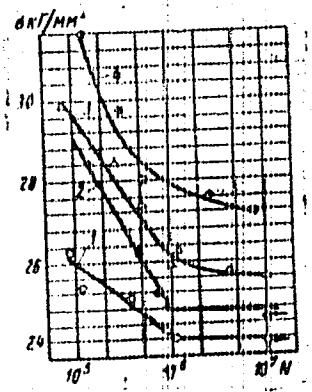

Fig. 1. The effect of static deformation aging on the cyclical strength of low-carbon steel: 1 - normalization; 2, 3 - static deformation of 4% and 9% respectively, aging for 8 hours at 100C; 4 - dynamic deformation 17%, aging for 8 hours at 100C.

deformation is accompanied by an increase in strength from static deformation aging. The magnitude of the strength increases depends not only on the degree of preliminary deformation but also on the mode of preliminary heat treatment. Plots are presented showing the effect of static deformation aging for varying degrees of deformation on the cyclical strength of Armco steels, as well as the effect of preliminary plastic deformation and subsequent heat treatment on the cyclical strength of steel S4. The success of the MMTO method (multiple mechanical-thermal treatment) is reviewed and the mechanism by which this method increases fatigue

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L 23178-66
ACC NR: AP6005562

3

strength is outlined. Reference is made to Soviet, American, and German research in this field. The authors conclude that rational application of this type of mechanical thermal treatment can increase the fatigue limit of low-carbon steels by as much as 30 to 40% with corresponding increase in machine parts durability. Orig. art. has: 8 figures.

SUB CODE: 11/ SUBM DATE: none/ ORIG REF: 007/ OTH REF: 005

Card 3/3 LJC

L 27233-66 EWT(m)/T/EWP(w)/EWP(t) IJP(c) JD

ACC NR: AM6003228 Monograph UR/

Ivanova, V. S.; Gorodiyenko, L. K.; Geminov, V. N.; Zubarev, P. V.; Fridman, Z. G.; Liberov, Yu. P.; Terent'yev, V. F.; Vorob'yev, N. A.; Kudryashov, V. G.

Role of dislocation in the strengthening and failure of metals (Rol'dislokatsii v uprochnenii i razrushenii metallov) Moscow, Izd-vo "Nauka", 1965. 179 p. illus., biblio. Errata slip inserted. 4500 copies printed.

TOPIC TAGS: metal, alloy, metal strength, alloy strength, dislocation, dislocation theory, thermomechanical treatment, metal failure

PURPOSE AND COVERAGE: The book is a continuation and development of the ideas of the late Professor I. A. Oding on the theory of dislocations. This theory served as the basis for the elaboration of new methods of strengthening metals and alloys. In the first part (Chap. I-IV) of this monograph the role of dislocations in the development of plastic deformation and the generation of flaws is discussed. In the second part (Chap. V-VII), the theoretical premises for metal and alloy strengthening with thermomechanical treatment and the effect of this treatment . . the mechanical properties of metals and alloys under static and cyclic loads are reviewed.

TABLE OF CONTENTS:

UDC: 669.018.25:669-17

Card 1/2

L 27233-66
ACCNR: AM6003228

SUB CODE: 11/ SUBM DATE: 06Aug65/ ORIG REF: 180/ OTH REF: 238/

Card 2/2

ACC NR: AP7005755 SOURCE CODE: UR/0126/67/023/001/0117/0122

AUTHOR: Ivanova, V. S.; Terent'yev, V. F.; Kudryashov, V. G.; Sabitova, N. S.

ORG: Institute of Metallurgy im. A. A. Baykov (Institut metallurgii)

TITLE: Mechanism of hardening during multiple deformation aging

SOURCE: Fizika metallov i metallovedeniye, v. 23, no. 1, 1967, 117-122

TOPIC TAGS: metal deformation, metal aging, metal heat treatment, creep, low carbon steel

ABSTRACT: The strength of metals can be additionally enhanced if they are deformed in stages alternating with aging. The best results are produced when the metal is subjected at room temperature to successive dynamic loadings up to a rigorously limited degree of deformation equal in magnitude to the creep plateau, alternated with intermediate aging (multiple thermomechanical treatment or MTMT). The MTMT of e.g. iron increases its yield point by 100-150% and ultimate strength by 50-75% while maintaining plasticity at the level of 17%. In this connection the authors investigated the dislocation structure of low-carbon steel and armco iron following their quadruple (i.e. 4-stage) MTMT with intermediate aging (150°C for 5 hr) after each stage of deformation. Dislocations were examined by etching with the reagent

 UDC: 539.4

ACC NR: AP7005755

LZ (100 cc of methyl alcohol + 1 g $FeCl_3$). Findings: the increase in the static and cyclic strength of armco iron and low-carbon steel following their MTMT is due to the formation of a stabilized dislocation structure which uniformly encompasses the hardened volume of the metal and leads to: a) limitation of surface deformation during cyclic loading of the metal and, as a consequence, retardation of the occurrence of fatigue cracks which, in its turn, prolongs the life of the metal; b) increase in the energy G_{1c} required for the propagation of a crack (per unit length of the crack). Knowledge of the parameters G_{1c} and K_{1c} (relative local increase in tensile stress at the leading end of a crack spreading under conditions of plane deformation) is an important and useful requirement for selecting the optimal regime of hardening treatment. Orig. art. has: 4 figures, 2 formulas.

SUB CODE: 13, 11/ SUBM DATE: 09Oct65/ ORIG REF: 008/ OTH REF: 007

Card 2/2

ACC NR: AT6012387 SOURCE CODE: UR/0000/65/000/000/0167/0172

AUTHORS: Oding, I. A. (deceased); Ivanova, V. S.; Kosyakina, Ya. S.

ORG: none

TITLE: Peculiarities of plastic deformation and failure of titanium at room temperature

SOURCE: Soveshchaniye po metallokhimii, metallovedeniyu i primeneniyu titana i yego splavov, 6th. Novyye issledovaniya titanovykh splavov (New research on titanium alloys); trudy soveshchaniya. Moscow, Izd-vo Nauka, 1965, 167-172

TOPIC TAGS: material testing, fatigue strength, titanium, titanium alloy, plastic deformation, electron microscopy / AT4 alloy, 10 steel, EMP-1A titanium, T-40 titanium

ABSTRACT: Some properties of titanium in construction uses are discussed. Particular attention is given to the effects of surface conditions and stress concentrations. Comparative data on the fatigue resistance both in air and in vacuum are given. An unexpected outcome of these data (see Fig. 1) is that the effect of the air ambient on fatigue strength of titanium is about twice as great as that for iron. It is suggested that the level of chemical activity between titanium and oxygen in the air increases in conditions of cyclical loading. The plastic deformation behavior of titanium under both cyclical and static loads is also noted. The results

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ACC NR: AT6012387

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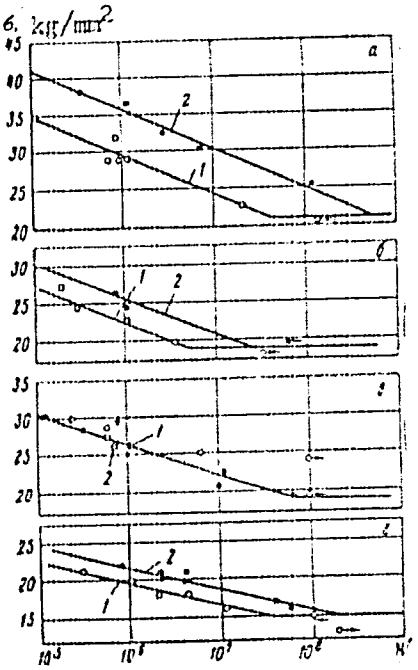
Fig. 1. Fatigue curves in air (1) and in vacuum (2). a - alloy AT4, b - titanium IMP-1A, c - transformer iron, d - steel 10.



Card 2/3

ACC NR: AT6012387

of x-ray surface analysis at room temperature give some indication of the "slip" of surface pyramids and prisms. A discussion of the changes occurring in the material fabric in plastic deformation is presented. It is thought that this material is perhaps more sensitive to minute imperfections in chemical content and microstructure than are many others. Electron microscope tests were made on titanium alloy AT-4 [4.5% Al, 1.5% (Cr+Fe+Si), 0.01% B, 0.1% C, 0.15% O, 0.05% N, 0.015% H, and the remainder titanium]. The results show that under cyclical loading deformation develops through several mechanisms. These results are diagrammed and described, and compared with the findings of other research. Orig. art. has: 4 figures and 1 table.

SUB CODE: 11/ SUBM DATE: 02Dec65/ ORIG REF: 007/ OTH REF: 004

Card 3/3 JS

IVANOVA, V.S. (Moskva); SOLOVKIN, Ye.S. (Moskva); KOROLENKO, L.I. (Moskva)

Study with the aid of electron microscopy of the initial stage of fatigue failure. Izv. AN SSSR. Met. i gor. delo no.6:125-128 N-D '64. (MIRA 18:3)

USSR/Metallurgy - Steel, Structural Analysis

Jan 53

"Investigation of the Locality of Plastic Deformation in Tension," I.A. Oding, Corr Mem Acad Sci USSR, V.S. Ivanova

Iz Ak Nauk SSSR, OTN, No 1, pp 96-105

Experimenting with 3 grades of steel (EYa-1T, EI-454 and Armco-iron), establishes that plastic deformation at normal as well as at elevated temps has local nature and different metals show different extent of locality in plastic deformation.

256T83

Inhomogeniety of plastic deformation of steels tested decreases with increase of deformation (except in steel EI-454 at high temps).

ODING, I.A.; VOLOSATOVA, Ye.N.; IVANOVA, V.S.

Investigation of relaxation, creep and endurance properties of the EIa-1T Armko iron and steel at fluctuating temperatures. Trudy Sem. po proch. det. mash.1 no.2:3-30 '53. (MLRA 7:1)

1. Chlen-korrespondent Akademii nauk SSSR (for Oding).
(Steel) (Iron) (Creep of metals)

IVANOVA, V.S.

Certain factors affecting the rate of creep. Trudy Sem.po prochn. det.mash. 1 no.2:59-66 '53. (MLRA 7:1)
(Creep of metals)

ODING, I.A., chlen-korrespondent Akademii nauk SSSR; IVANOVA, V.S., inzhener.

Scientific achievements of construction bureaus in problems of strength. Applying some new scientific achievements in the design of machine parts. Vest.mash. 33 no.10:3-10 O '53. (MLRA 6:10)

1. Akademiya nauk SSSR (for Oding). (Mechanical engineering)

Ivanova, V. S.

USSR/Engineering - Metallurgy

FD-1112

Card 1/1 Pub. 41-6/13

Author : Cding, I. A. and Ivanova, V. S., Moscow

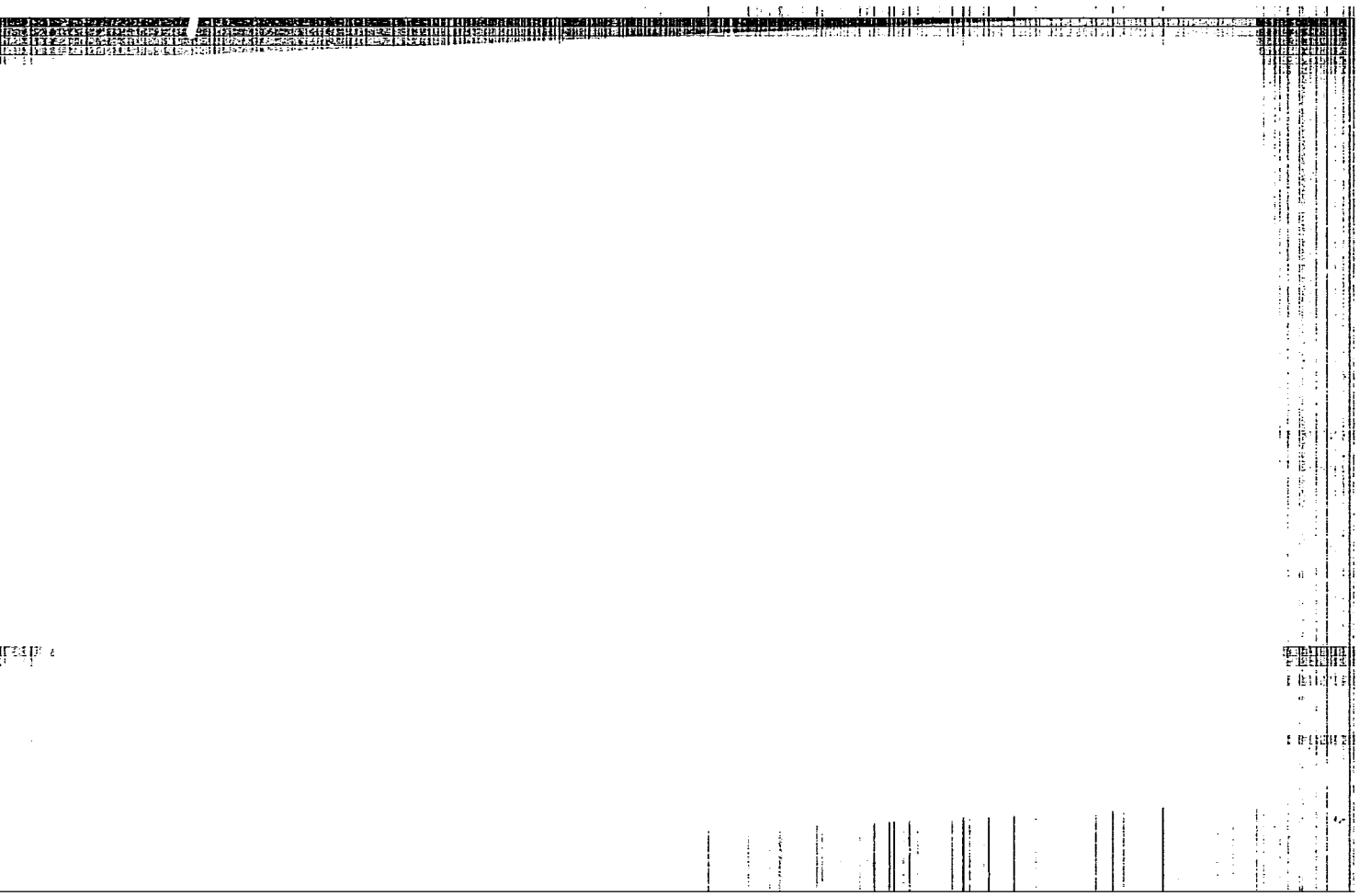
Title : Some properties of diffusion plasticity during stress relaxation in metals.

Periodicals : Izv. AN SSSR, Otd. tekh. nauk 5, 81-90, May 1954

Abstract : Discusses two mechanisms in process of relaxation of metals: (1) diffusion and (2) mechanical. Gives results of investigation of (1) diffusion processes on the first portion of the relaxation curve and their role and effectiveness in an evaluation of the relaxation stability of metal and (2) the mechanism of diffusion plasticity. Graphs; tables. Sixteen references.

Institution : Institute of Metallurgy imeni A. A. Baykov

Submitted : February 20, 1954



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1491. Nature of Fracture of Metals During Creep. (O prirode razrusheniia metallov pri polzuchesti.) (Russian.) V. S. [illegible] *[illegible] metallov*, 1955 [illegible]

[illegible] the intensity of vacancy formation during creep. Discusses relation between stress and time [illegible] to fracture, in steel with low creep resistance, and of the deformation resistance and cohesive strength to service life of [illegible] metal. [illegible] graphs, diagrams. 17 ref.

IVANOVA, V. S.

AID P - 1244

Subject : USSR/Engineering

Card 1/1 Pub. 110-a - 5/17

Authors : Oding, I. A., Corr. Mem., Academy of Sciences, USSR and Ivanova, V. S., Kand. of Tech. Sci.

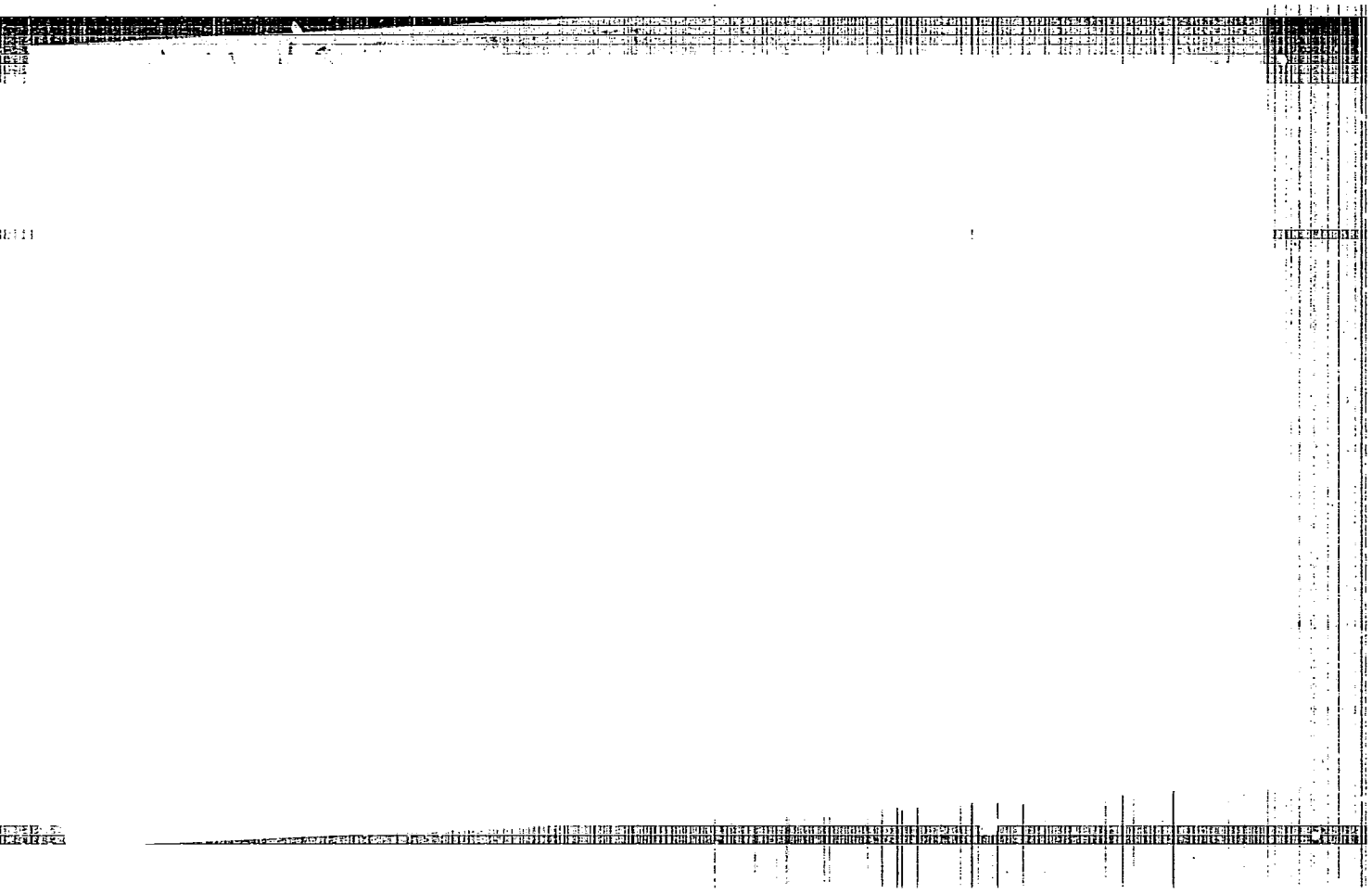
Title : Interrelation between different criteria of heat resistance

Periodical : Teploenergetika, 1, 24-27, Ja 1955

Abstract : Recommendations are made concerning the margin of strength when the plastic properties of material are taken into consideration for those machine parts which work under high temperatures. A new equation is suggested for the extrapolation of the relation "stress-time" when testing for a long-lasting strength. Diagrams. References: 3 Russian, (1948-1953), 4 non-Russian, (1941-1952).

Institution : Institute of Metallurgy im. A. A. Baykov

Submitted : No date



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FD-3228

IVANOVA, V. S.

USSR/Engineering - Physical Metallurgy

Card 1/1 Pub. 41-9/22

Author : Ivanova, V. S. and Oding, I. A., Moscow

Title : Creep of Cast Iron with Spheroidal Graphite

Periodical : Izv. AN SSSR, Otd. Tekh. Nauk 7, 89-92, Jul 55

Abstract : Reviews results of referenced works on creep tests of spheroidal graphite iron at 450°C. Discusses influence of chemical composition on creep resistance of the iron. One micrograph; two graphs. Five references, three USSR.

Institution :

Submitted : 26 March 1955

ODING, I.A., professor, doktor tekhnicheskikh nauk; IVANOVA, V.S., kandidat tekhnicheskikh nauk.

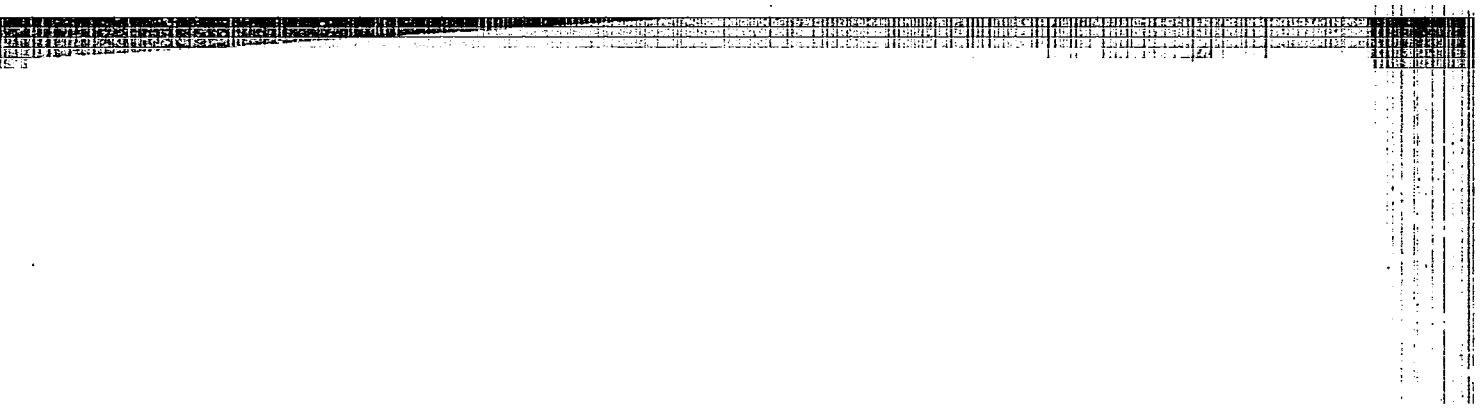
Tabular-differential method of determining the safety factor in machine building. Trudy MEI no.17:85-101 '55. (MLRA 9:7)

1.Chlen-korrespondent AN SSSR (for Oding).2.Kafedra tekhnologii metallov.
(Machinery--Design)

IVANOVA, V.S.

Plasticity criteria in the creep of metals. Zav.lab. 21 no.2: 212-216 '55. (MLRA 8:6)

1. Institut metallurgii Akademii nauk SSSR
(Creep of metals)



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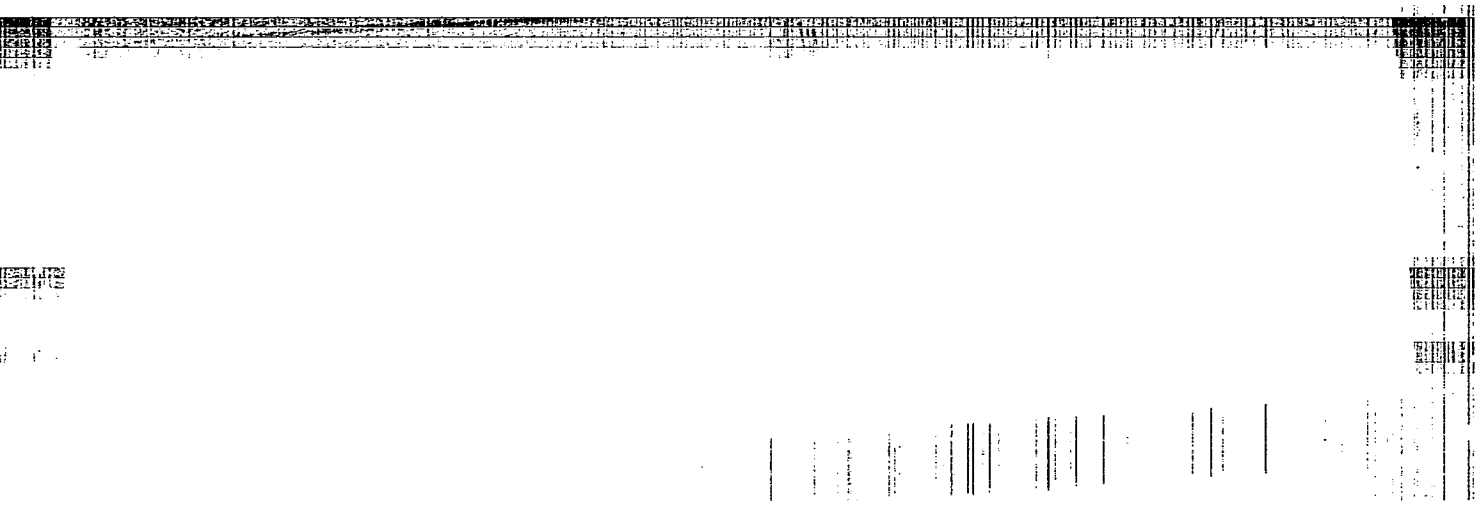

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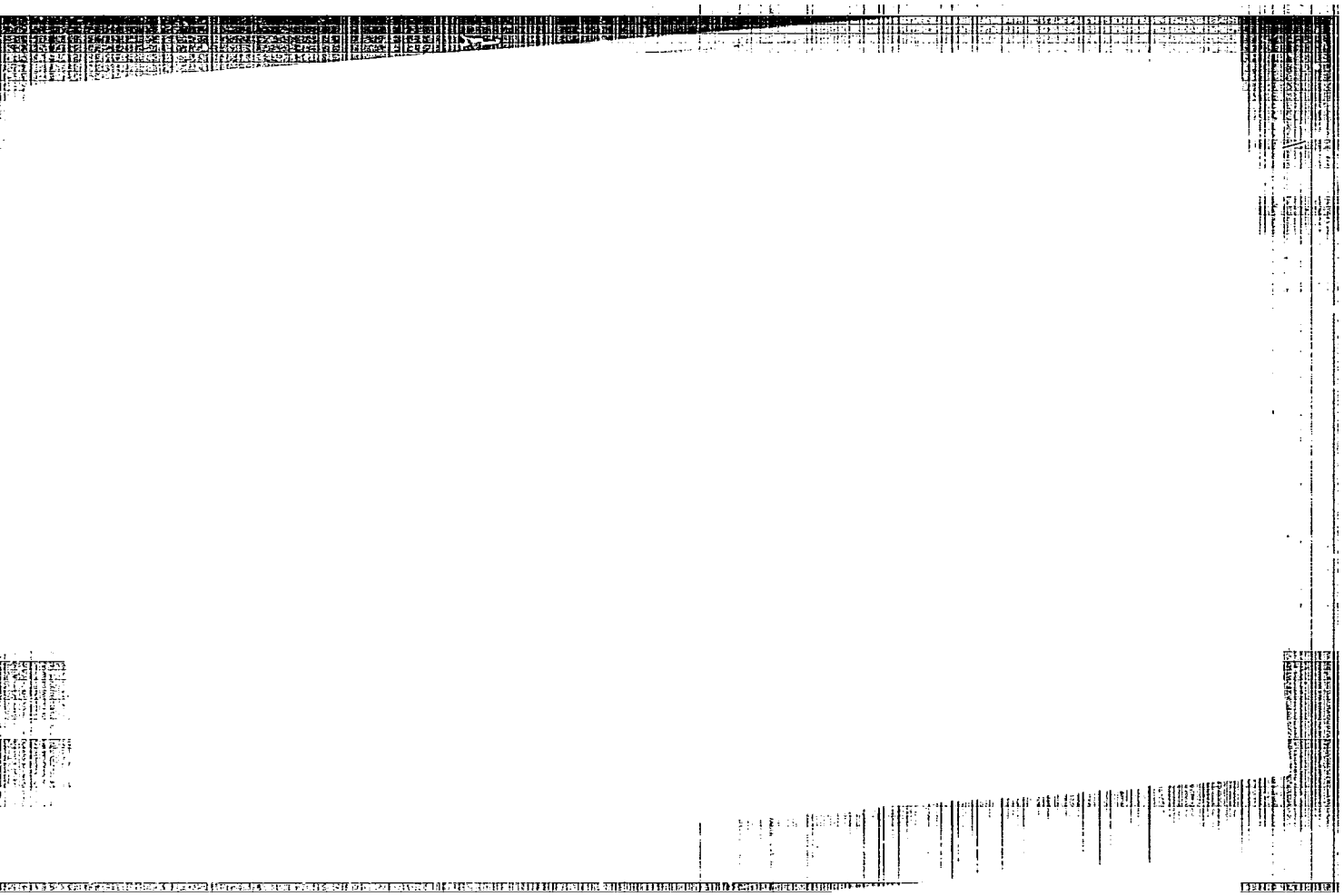

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SOV/124-58-1-1297

Translation from: Referativnyy zhurnal, Mekhanika, 1958, Nr 1, p 160 (USSR)

AUTHOR: Ivanova, V.S.

TITLE: On the Nature of the Yielding Region (O prirode ploshchadki tekuchesti)

PERIODICAL: Tr. Sibirsk. fiz.-tekhn. in-ta pri Tomskom un-te, 1955, Nr 34, pp 139-158

ABSTRACT: An expansion of the paper by V.S. Ivanova (Dokl. AN SSSR, 1954, Vol 94, Nr 2, pp 217-220; RZhMekh, 1954, Nr 10, abstract 5386). Reviewer's name not given

Card 1/1

Ivanova, V. S.

USSR/Engineering - Metallography

Card 1/1 Pub. 128 - 22/31

Authors : Oding, I. A., Memb. Corr., Acad. of Sc., USSR, and Ivanova, V. S., Cand Tech. Sc.

Title : Analysis and application of certain creep criteria

Periodical : Vest. mash. 35/5, 62-66, May 1955

Abstract : The two basic physical properties of a metal which predetermine its machinability under creep conditions are explained. The creep criteria closely connected with the physical properties of metal are discussed. It is explained that the source of plasticity is a criteria characterizing a special property of a metal, namely, its plasticity during long period of service under stress at high temperature. The plasticity criterion shows the homology between creep and strength criteria which is of great importance in metallography and in construction. Table; graphs.

Institution : .....

Submitted : .....

Ivanova, V. S.

USSR/ Engineering - Metal creep

Card 1/1 Pub. 22 20/46

Authors : Oding, I. A., Mem.-Corresp., Acad. of Sc., USSR; and Ivanova, V. S.

Title : On the process of decomposition of metals during creep

Periodical : Dok. AN SSSR 103/1, 77-80, Jul 1, 1955

Abstract : Causes of the formation of cracks in metals during creep, which leads to the metal fracture, are discussed. An analysis of various theories to explain the process of metal fracture during creep leads to the following conclusion based on the hypothesis of the so-called "vacant spaces": the diffusion of the vacant spaces, gathering them into colonies near pores, and the developing of these pores into a crack; and growing the crack at the expense of new vacant spaces are the real causes of fracture during creep. Ten references: 1 USSR, 4 Germ. and 5 USA (1925-1954). Diagram.

Institution : Acad. of Sc., USSR, Institute of Metallurgy imeni A. A. Baykov

Submitted : February 25, 1955

IVANOVA, V. S. and ODING, I. A.

"Fatigue of metals under contact friction," a paper presented at International Conference on Fatigue of Metals, London, Sep. 56.

DSI. No. 103

IVANOVA, V. S.

Oding, I. A. (Corr. Mbr. AS USSR), Ivanova, V. S., "General Diagram of the Criteria of Creep with the Utilization of New Relations (dependencies) Between Pressure (stress), Speed of Creep and Term of Service of the Metal."

in book Research on Heat Resistant Alloys, pub by Acad. Sci. USSR, Moscow, 1956, 160 pp.

Inst. Metallurgy im A. A. Baykov

Ivanova, V.S.

PHASE I BOOK EXPLOITATION 364

Akademiya nauk SSSR

Prochnost' metallov (Strength of Metals) Moscow, Izd-vo AN SSSR, 1956. 205 p. 5,200 copies printed.

Resp. Ed.: Ageyev, N.V., Corresponding Member, Academy of Sciences, USSR; Ed. of Publishing House: Rzheznikov, V.S.; Tech. Ed.: Makuni, Ye. V.

PURPOSE: This book is a collection of articles published in honor of I.A. Oding, a Soviet scientist, engineer and teacher whose special fields are metallurgy and strength of metals. The book marks his 60th birthday and the 35th anniversary of his scientific and pedagogical work.

COVERAGE: These articles deal with experimental and theoretical investigations of the properties and characteristics of metals. For the abstract of each article see Table of Contents. There is a list of 131 articles and books written by I.A. Oding.

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Strength of Metals

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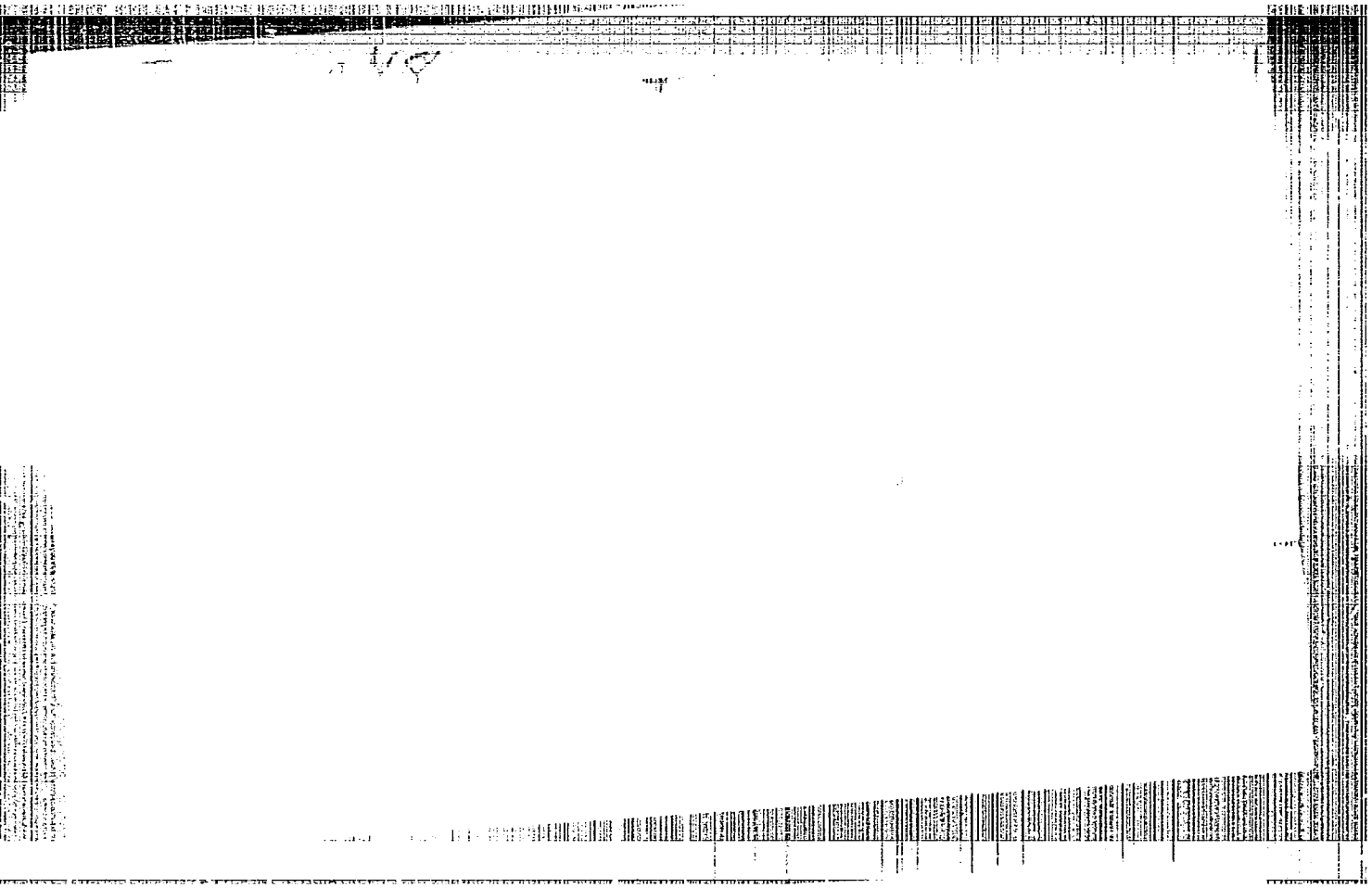

TROYANSKIY, Yevgeniy Aleksandrovich; IVANOVA, V.S., redaktor; VORONIN, K.P., tekhnicheskiy redaktor

[Metals for boiler construction and calculation of the strength of boilers] Metally kotlostroeniia i raschet prochnosti detalei parovykh kotlov. Moskva, Gos. energ. izd-vo, 1956. 192 p. (MLRA 10:1)
(Boilers)

IVANOVA, V.S.

137-1957-12-25033

Translation from: Referativnyy zhurnal, Metallurgiya, 1957, Nr 12, p 300 (USSR)

AUTHOR: Ivanova, V.S.

TITLE: On the Question of the Role of Dislocations in the Creep Process (K voprosu o roli dislokatsiy v protsesse polzuchesti)

PERIODICAL: V sb.: Prochnost' metallov. Moscow, AN SSSR, 1956, pp 16-26

ABSTRACT: The theory of dislocation (D) is employed in an effort to explain qualitatively certain peculiarities in the behavior of metal under conditions of creep, namely, the localized nature of plastic deformation and the strengthening of metals under mechanical and heat treatment. In the light of the D theory, the localized progress of plastic deformation is explained by the difference of critical stresses required for the movement of the separate D's. It is shown that the resistance to creep is considerably increased in the case of "Armco" iron (American Rolling Mill Co.) and austenite steel EYa-IT (up to 25 times in a number of instances), after a preliminary deformation, under conditions of creep, to the point of critical deformation, followed by exposure to operating temperature for about 24 hours. Pausing to cool the specimen does not produce any strengthening effect. It is indicated that the

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137-1957-12-25033

To the Question of the Role of Dislocations in the Creep Process

strengthening is caused by the formation around the D of a "cloud" of heterogeneous atoms which obstruct its progress. Since the accumulation of atoms is a diffusion process, increased temperatures and a certain length of time are required for its realization. Not under all conditions does the mechanical and heat treatment result in strengthening; it appears that an optimal concentration of D's exists which corresponds to the critical deformation and which is indispensable for the strengthening of metal. Under deformations greater or smaller than the critical deformation, the strengthening is significantly smaller or even entirely absent.

V. G.

1. Metals-Deformation-Theory 2. Metals-Creep-Theory

Card 2/2

IVANOVA, V.S.

124-11-13182

Translation from: Referativnyy Zhurnal, Mekhanika, 1957, Nr 11, p. 132 (USSR)

AUTHOR: Oding, I. A., and Ivanova, V. S.

TITLE: Generalized Diagram of Creep Criteria with Utilization of New Relationships Between Stress, Creep Rate, and Stress Time of Metals. (Obobshchennaya diagrammakriteriyevpolzuchesti s ispol'zovaniyem novykh zavisimostey mezhdu napryazheniyem, skorostyu polzuchesti i srokom sluzhby metalla)

PERIODICAL: In the book: Issledovaniya po zharoprochnym splavam. Moscow A. N. SSR, 1956, pp 52-59

ABSTRACT: It is proposed that a generalized diagram, constructed in the following manner, be applied to the representation of test results on the creep and stress-life expectancy of materials: The positive abscissa represents the logarithm of the creep rate, while the negative abscissa represents the logarithm of time; the positive ordinate has a linear stress scale, while the negative ordinate has a logarithmic scale of the total creep $\varepsilon_r = v\tau$, where v is the creep rate and τ is the stress time. Expressions are provided for the introduction of the

Card 1/2

'Generalized Diagram of Creep Criteria with Utilization of New Relationships Between Stress, Creep Rate, and Stress Time of Metals. (Continued)

total-creep term. It is shown that the exponential relationships between the creep rate and the stress, and between the stress and the stress time are more representative of empirical experience than are the linear ones.

(V. S. Namestnikov)

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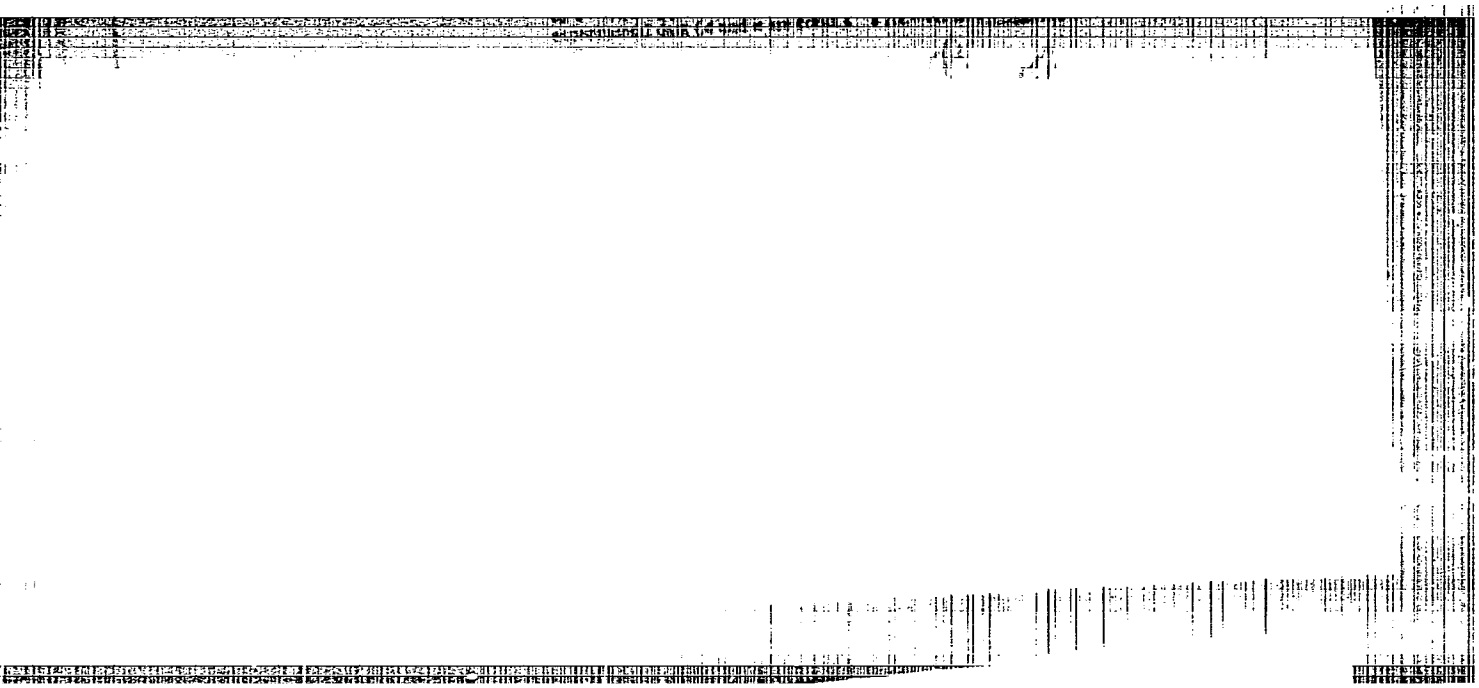

APPROVED FOR RELEASE: 08/10/2001 CIA-RDP86-00513R000619230003-7"

Ivanova, V. S.

E-9

USSR / Mechanical Properties of Crystals and Polycrystallic Compounds.

Abs Jour : Ref Zhur - Fizika, No 4, 1957, No 9441

Author : Ivanova, V.S., Oding, I.A.

Title : Creep of Cast Iron with Globular Graphite.

Orig Pub : An. Rom.-Sov. Metalurgie si constr. masini, 1956, 10, No 2, 119-122.

Abstract : Translation from the journal "Izv. AN SSSR", division of technical sciences, 1955, No 7 (Referat Zhurnal - Fizika, 1956, 22890).

Card : 1/1

IVANOVA, V.S.

Unit for bending fatigue test on flat specimens. Zav. lab. 22 no.12:1496-1497 '56. (MLRA 10:2)

1. Institut metallurgii Akademii nauk SSSR imeni A.A. Baykova.
(Metals--Testing) (Testing machines)

IVANOVA, V. S., Moscow

"Etude sur Quelques Conformities du Procede de Fatigue Des Metaux," a paper submitted for Annual Meeting of French Society of Metallurgy, Paris, 7-12 Oct 57

C-3,000355

IVANOVA, V.S.

SOV/24-58-4-33/39

AUTHOR: Ivlev, D.D.

TITLE: Conference on Sustained Static Strength of Turbine Components Working at High Temperatures (Soveshchaniye po dlitel'noy staticheskoy prochnosti detaley turbomashin, rabotayushchikh pri vysokoy temperature)

PERIODICAL: Izvestiya Akademii Nauk SSSR, Otdeleniye Tekhnicheskikh Nauk, 1958, Nr 4, pp 149 - 150 (USSR)

ABSTRACT: The Commission on the Strength of Gas Turbines from the Institut mekhaniki AN SSSR (Institute of Mechanics of the Ac.Sc.USSR) (Chairman - Yu.N. Rabotnov) and the Strength Section of the Leningrad Technical Committee on Turbine Construction (Chairman - V.K. Naumov) held a conference during November 20-22, 1957 on the sustained static strength of turbine components working at high temperature. The conference was opened by an introductory speech by the chairman of the Leningrad Technical Committee on Turbine Construction, S.A. Kantor.
The paper by I.A. Oding (Institute of Metallurgy, Ac.Sc. USSR) "Structural Theory of Creep" contained an account of the author's theory.
V.S. Ivanova and L.K. Gordiyenko (Institut metallurgii AN SSSR - Institute of Metallurgy of the Ac.Sc.USSR) in the paper "Experimental Investigation of Some Aspects of the Theory of Structural Creep" described results corroborating aspects of Oding's theory.

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L.A. Kuznetsov (Nevskiy metallicheskiy zavod im. Lenina - Nevskiy Metal Factory im. Lenin) in his paper "Problems in the Field of Static Strength of Turbine Components, Working at High Temperature" dwelt on data obtained in Leningrad industrial undertakings indicating the need for further improvement in design and constructional procedure. The basic problem, in the author's opinion, is not so much the investigation of the stresses in individual components as the investigation of the limiting states of actual constructions. The author also noted the need for experimental investigation of model rotors, disks and frameworks of turbines and suggested setting before the Government the question of organising such an assembly in one of the factories with complete centralisation and co-ordination of work in this direction. The author criticised the inadmissible unplanned work taking place at the present time in extensometry, when each undertaking must itself solve problems relating to gauge, cements for them, methods of testing and appropriate apparatus.
I.A. Birger (TsIAM) presented a paper on "Standards of Strength of Components at High Temperatures"
A.P. Dirman (TsNIITMASh) gave a paper on "Experimental Investigation of the Bearing Capacity of Disks"
M.A. Koren' (Leningradskiy metallicheskiy zavod im. Stalina - Leningrad Metal Factory imeni Stalin) in the paper "Apparatus for Testing Sustained Strength of Some Turbine Stator Components" dealt with items of equipment constructed at his factory for investigating the stress state in a number of components: diaphragms, pin connections, etc.
V.S. Namestnikov (Moskovskiy gosudarstvennyy universitet - Moscow State University) gave a paper on "Creep of Heat-resistant Alloys at High Temperature". The author described experimental investigations on the behaviour of the steels EI-257 and EI-405 under conditions of complex stress and high steady temperature.

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...LEASE: 08/10/2001 CIA-RDP86-00513R000619230003-

PA - 2159

AUTHOR: IVANOVA, V.S., ODING, I.A.

TITLE: Fatigue of Metals in the Case of Contact Friction. (Ustalost' metallov pri kontaktnom trenii, Russian).

PERIODICAL: Izvestiia Akad. Nauk SSSR, Otdel. Tekhn., 1957, Nr 1, pp 95 - 102 (U.S.S.R.)
Received: 3 / 1957 Reviewed: 4 / 1957

ABSTRACT: Two brands of Cr-Ni-Mo steels which differed only with respect to their Ni-content, were investigated. Experiments were carried out under such conditions that it was possible, in the case of a symmetric flexure, to examine the samples in air as well as in hydrogen. Besides, the possibility was offered to carry out investigations in the case of contact friction. It was found that there was no decrease of the fatigue limit in molecular hydrogen. By experiments carried out up to 250 million cycles it was shown that, in the case of contact friction, a continuous decrease of cyclic strength takes place both in the air as also in hydrogen. Utilization of experimental results according to the Weibull method showed that the fatigue limit of Cr-Ni-Mo steel is equal to zero in the case of contact friction and that its value is very low. The decrease of the fatigue limit in the case of contact friction is explained by the process of electro-erosion. This process takes place under the influence of the thermoelectric current produced

Card 1/2

IVANOVA, T.S.; GRIBNOV, V.N.

Plasticity criteria of heat resistant alloys. Zav. lab. 23 no.5: 601-605 '57. (MLRA 10:8)

1. Institut metallurgii imeni A.A. Baykova Akademii nauk SSSR. (Heat resistant alloys--Testing) (Plasticity)

32-12-36/71

AUTHORS: Ivanova, V.S., Gordiyenko, L.K.

TITLE: On the Problem of Determining the Fatigue Limit (K voprosu ob opredelenii predela ustalosti).

PERIODICAL: Zavodskaya Laboratoriya, 1957, Vol. 23, Nr 12, pp. 1489-1491 (USSR)

ABSTRACT: In this paper a new method of determining the fatigue limit of metals is suggested, which is based upon a quicker determination of the resistivity limit at the expense of the number of samples. For this purpose the formula for the fatigue curve, which was obtained experimentally by W.W. Weibull (Stockholm) and theoretically by I.A.Oding:

$N_i = K_* (\sigma_i - \sigma_w)^{-m} = \left(\frac{K_*}{\sigma_i - \sigma_w}\right)^m$, where N_i denotes the number of cycles up to the destruction of the sample, σ_i - tension corresponding to N_i, which caused the destruction, σ_w - fatigue limit, K_* and m - are constant coefficients of the metal or alloy. For the determination of the resistivity limit σ_w must be selected in such a manner that $\lg(\sigma_i - \sigma_w) - \lg N_i$ can be represented by a straight line,

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On the Problem of Determining the Fatigue Limit 32-12-36/71

which is assumed to be the fatigue limit. There are 4 figures, 2 tables, and 4 references, 2 of which are Slavic.

ASSOCIATION: Metallurgical Institute AS USSR imeni A.A.Baykov (Institut metallurgii im. A.A.Baykova Akademii nauk SSSR).

AVAILABLE: Library of Congress

Card 2/2 1. Metals-Fatigue 2. Mathematical analysis