Production of Lead at the Lead-Zinc Plant at Kerdzhali

the first alkaline refining; total. Obtained: crude lead; matte; mechanical losses and losses in the exhaust gases; total); quantity, t; Pb, %; quantity of lead, t; recovery of lead, %; Cu, %; quantity of copper, t; recovery of copper, %. In the conclusions, the authors state that at present, after two years' operation of the plant, its production has reached the planned level. 93% of lead present in the raw material is recovered, the remaining 7% being distributed as follows: 0.9% in the matte, 2.9% in the slag, 0.7% in the arsenical and bismuthous lead, remainder - unrecoverable losses. The labour productivity has reached 70 t of metal per man per year. There have been no cases of lead poisoning. There are 4 figures, 3 tables and 3 Soviet references.

Card 8/8

YANCHEV, Ya.

Bulgaria/Military

144-A-V

YANCHEV, Ya., Meditsinski Podpolkovnik; author of the article: "The Need for First-Aid Training." (Narodna Armiya, Sofia, 20 Jul 60, p 2)

24
(1)
tg

YANCHEV, Ya.

Bulgaria/Military

817-A,Y

YANCHEV, Ya., Meditsinski Podpolkovnik; author of the article, "Health Habits and Medical Training of Servicemen." (Narodna Armiya, Sofia, 11 Aug 60, p 2)

24
(1)
tg

YANCHEV, Yancho

Bulgaria/Military B-395

YANCHEV, Yancho, Polkovnik of the Medical Service (meditsinska sluzhba); author of an article entitled "Medical Support of Tactical Exercises" discussing the planning and operation of a regimental aid station during a tactical exercise conducted in mountain terrain. (Voenno Meditsinsko Delo, Sofia, Vol 6, Dec 60, pp 60-64)

[redacted]

24
(1)

YORDANOV, Y.T. [Iordanov, I.T.]; POPOV, M.Z.; KAROLEVA, V.D.; YANCHEV, Ya.Kh.

Experience in the treatment of Waelz oxides at the Plovdiv Nonferrous Metal Combine. TSvet. met. 36 no.1:23-30 Ja '63. (MIRA 16:5)

(Bulgaria--Nonferrous metals--Metallurgy)

YANCHEVA, Kina Gr.
SURNAME (in caps); Given Names

Country: Bulgaria

Academic Degrees: not indicated

Affiliation: Teacher at xxx V. Aprilov School in Burgas

Source: Sofia, Biologiya i Khimiya, No 2, 1961, pp 48-49

Data: "How I Aroused Interest and Introduced Life in The Lesson "Cotton and Hemp."

L 17544-66
ACC NR: AP6000792 SOURCE CODE: UR/0106/65/000/009/0071/0074

AUTHOR: Krisilov, Yu. D.; Yancheva, L. I.

17
13

ORG: none

TITLE: Maximum gain of transistorized RC-amplifiers

SOURCE: Elektrosvyaz', no. 9, 1965, 71-74

TOPIC TAGS: transistorized amplifier, amplifier gain

ABSTRACT: The maximum gain of a common-emitter transistorized-amplifier stage is theoretically investigated at medium audio frequency. The transistor is assumed to be operating within the active range of its I-V characteristics (class-A operation). The effect of the collector-base feedback conductance is neglected. Formulas for the gain and optimal collector current in terms of external-circuit parameters and static current gain are developed. Graphic material is supplied to facilitate the use of the formulas when Soviet-manufactured transistors are dealt with. The curves permit figuring out the potentialities of RC-stages; in some cases, these curves permit approximate selection of the operating point and evaluation of the maximum gain; as a

Card 1/2 UDC: 621.375.41

2

L 17544-66
ACC NR: AP6000792

rule, the maximum gain corresponds to conditions different from those recommended for typical operation. A good agreement between experimental results for P13 transistors and the theoretical curves is claimed. Orig. art. has: 5 figures and 12 formulas.

SUB CODE: 09 / SUBM DATE: 29Aug64 / ORIG REF: 003

Card 2/2

YANCHEVSKAYA, A. A.

"The Functional Condition of the Cardiovascular System During the Various Phases of Primary Tuberculosis in Children." Cand Med Sci, Acad Med Sci USSR, Moscow, 1954. (KL, No 9, Feb 55)

SO: Sum. No. 631, 26 Aug 55 - Survey of Scientific and Technical Dissertation Defended at USSR Higher Educational Institutions (14)

YANCHEVSKAYA, A.A., kandidat meditsinskikh nauk

Case of in vivo diagnosis of a primary cardiac tumor resulting in exudative pericarditis [with summary in French]. Probl.tub. 35 no.2: 109-112 '57. (MIRA 10:6)

1. Iz detskoy legochnoy kliniki (zav. - prof. M.P.Pokhitonova) Instituta tuberkuleza (dir. Z.A.Lebedeva) Akademii meditsinskikh nauk SSSR.

(MYOCARDIUM, neoplasms
radomyoma cousing exudative pericarditis, with tuberc. in child, diag. (Rus))
(MYOMA, in inf. & child
myocardial radomyoma causing exudative pericarditis, with tuberc., diag. (Rus))
(PERICARDITIS, in inf. and child
exudative, caused by myocardial radomyoma, with tuberc., diag. (Rus))
(TUBERCULOSIS, in inf. & child
with myocardial radomyoma causing exudative pericarditis, diag. (Rus))

YANCHEVSKAYA, A.A., kand.med.nauk

Functional state of the cardiovascular system in various phases of primary tuberculosis in children [with summary in French]. Probl. tub. 36 no.1:51-59 '58. (MIRA 11:4)

1. Iz Detskoy legochnoy kliniki (zav. - prof. M.P.Pokhitonova) Instituta tuberkuleza AMN SSSR (dir. A.Z.Lebedeva)
(TUBERCULOSIS, in inf. & child
primary, funct. changes in cardiovasc. system (Rus))
(CARDIOVASCULAR SYSTEM, various dis.
primary tuberc. in child., funct. changes (Rus))

YANCHENVSKAYA, A.A., kand.med.nauk

Cardiovascular function in various phases of primary tuberculosis in children. Probl.tub. 37 no.5:101-103 '59.
(MIRA 12:10)

1. Iz detskoy legochnoy kliniki (zav. - prof.M.P.Pokhitonova) Instituta tuberkuleza AMN SSSR (dir.Z.A.Lebedeva).
(TUBERCULOSIS, PULMONARY - infancy & childhood)
(CARDIOVASCULAR SYSTEM - diagnosis)

YANCHEVSKAYA, A.A., kand.med.nauk

The cardiovascular system in meningeal tuberculosis in children.
Pediatriia 37 no.8:44-49 Ag '59. (MIRA 13:1)

1. Iz Detskoy legochnoy kliniki (zav. - zasluzhennyy deyatel' nauki prof. M.P. Plkhitinova) Instituta tuberkuleza AMN SSSR (dir. - Z.A. Lebedeva).
(TUBERCULOSIS, MENINGEAL, in infancy & childhood)
(CARDIOVASCULAR SYSTEM, pathology)

YANCHEVSKAYA, A.A., kand.med.nauk

Differential diagnosis of nonspecific and specific pneumonia in children. Pediatriia no.1:40-47 '62. (MIRA 15:1)

1. Iz detskoy legochnoy kliniki (zav. - zasluzhennyy deyatel' nauki prof. M.P. Pokhitonova) Instituta tuberkuleza AMN SSSR (dir. - chlen-korrespondent AMN SSSR prof. N.A. Shmelev).
(PNEUMONIA) (TUBERCULOSIS) (DIAGNOSIS, DIFFERENTIAL)

SEVEROV, V.S. (Moskva, ul. 6-go kilometra, d.2, korp. 2, kv.17); UVAROVA, O.A.; ZEMSKOVA, Z.S.; YANCHEVSKAYA, A.A.; DUBROVSKIY, A.V.

Plasmocytomas of the lung. Vestn. khir. Grekov. 90 no.4:14-17 Ap'63 (MIRA 17:2)

1. Iz khirurgicheskoy kliniki (zav. - prof. L.K.Bogush), patomorfologicheskoy laboratorii (zav. - prof. V.I.Puzik) Instituta tuberkuleza AMN SSSR.

YANCHEVSKAYA, I. S.

20-1-13/42

AUTHORS: Grigor'yev, Ye.P., Dzhelepov, B. S., Corresponding Member of the AN SSSR, Zolotavin, A. V., Kratsik, B., Preobrazhenskiy, B. K., Yanchevskaya, I. S.;

TITLE: The Conversion Spectrum of Ho^{160} (Konversionnyy spektr Ho^{160}).

PERIODICAL: Doklady AN SSSR, 1957, Vol. 117, Nr 1, pp. 53 - 56 (USSR)

ABSTRACT: The present paper investigates the conversion spectrum occurring in the radioactive transformation Er^{160} Ho^{160} Dy^{160}. The spectrum was investigated by means of a spectrometer with a double focusing. The conversion spectrum is homogeneous in both fractions: Er^{160} does not produce any conversion electrons and all the electrons belong to the Ho^{160}. The results of the investigations of the conversion spectrum are given in a table. The intensity of all the lines observed decreased in a period corresponding to the half-value period of the investigated fractions: 29 hours in the case of the erbium fraction and 5 hours of the holmium fraction. On measuring faults something is said, too. The general form of the conversion spectrum agrees with an earlier discovered form (reference 2). Moreover, some new facts could b. explained, which permit the determination of the decay scheme of the Ho^{160}: The lines L_I+L_{II}, L_{III}, M and N of the transition taking place in the Ho^{160} were observed with 60 KeV. The decomposition into the components makes it possible to determine the relative intensity of the lines. The relationship $L_I:L_{II}:L_{III}$ =

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= o,2:1, 1:1,o determined by the authors for the transition 86,4 keV confirms the multipole property E 2 of which.The line E_e = 99,7 keV discussed in a preparatory paper (reference 2) was identified as the L-line of the transition 1o7 keV by the authors. Moreover the K-conversion line of this transition was found.The conversion line of the transition 298 keV on the K-shell is a narrow doublet with $\Delta E \sim$ 1 keV. Further particulars on these new discovered lines are given.The data given here and the data on the decay of the Tb^{160}(references 7,8,9,1o,11,12)oan be used as fundament for the construction of the decay scheme of Tb^{160} and Ho^{160}.Such a scheme is illustrated by a graph. There are 3 figures, 2 tables, and 12 references, 5 of which are Slavic.

ASSOCIATION: Physics Institute of the Leningrad State University im. A.A. Zhdanov (Fizicheskiy institut Leningradskogo gosudarstvennogo universiteta im. A. A. Zhdanova).

SUBMITTED: September 13, 1957

AVAILABLE: Library of Congress

24(6) SOV/57-28-10-9/40

AUTHORS: Ioffe, V. A., Yanchevskaya, I. S.

TITLE: Dielectric Losses in Feldspars (Dielektricheskiye poteri v polevykh shpatakh)

PERIODICAL: Zhurnal tekhnicheskoy fiziki, Vol 28, Nr 10, pp 2154-2164 (USSR)

ABSTRACT: This is an investigation of the temperature and frequency dependence of the loss angle tg δ and of the dielectric constant ε of a number of natural monocrystals of feldspars in the temperature range of 20 - 500°K and a frequency region of $5 \cdot 10^2$ - $5 \cdot 10^6$ cy. This paper covers the isomorphic series of sodium-potassium feldspars, the plagioclases (which are a continuous series of solid solutions of albite ($NaAlSi_3O_8$) with anorthite ($CaAl_2Si_2O_8$), and microline ($KAlSi_3O_8$). A resonance absorption and an anomalous dispersion of the dielectric constant was found to exist in all feldspars investigated at a frequency of $5 \cdot 10^5$ cps. In the range of 200 - 500°K the dielectric losses in feldspars are caused by resonance phenomena, resonance occurring

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by thermal excitation. If the temperature is raised, the resonance frequency also rises at first. This explains the existence of the maxima in the tg δ versus temperature function at sonic frequencies. In microline the tg δ and ε versus frequency functions exhibit two maxima and two domains with an anomalous dispersion of ε. As the resonance frequency observed in all feldspars is low and identical this resonance must necessarily be ascribed to electron processes. There is every indication that the resonance is due to the transition of an electron from one oxygen atom into another oxygen atom in the negatively charged aluminum-oxygen tetrahedron. This conception is, however, of a still preliminary nature. There are 21 figures, 1 table, and 8 references, 4 of which are Soviet.

SUBMITTED: March 21, 1958

Card 2/2

Yanchevskaya, I. S.

AUTHOR: Syritskaya, Z. M.

S/072/60/000/03/021/023
B003/B008

TITLE: 3rd All-Union Conference on the Vitreous State

PERIODICAL: Steklo i keramika, 1960, Nr 3, pp 43-46 (USSR)

ABSTRACT: The 3rd All-Union Conference on the Vitreous State was held in Leningrad at the end of 1959. It was organized by the Institut khimii silikatov AN SSSR (Institute of the Chemistry of Silicates AS USSR), Vsesoyuznoye khimicheskoye obshchestvo imeni D. I. Mendeleyeva (All-Union Chemical Society imeni D. I. Mendeleyev) and Gosudarstvennyy opticheskiy institut imeni S. I. Vavilova (State Optical Institute imeni S. I. Vavilov). More than 100 reports on the structure of glass, investigation methods of the vitreous state, the mechanism of vitrification and physicochemical and technical properties of glasses were delivered. The Conference was opened by Academician A. A. Lebedev. . . . . At the 5th meeting, 9 reports dealt with the investigation results of sodium-boron-silicate glasses. A. A. Appen and Gan' Fu-Si, "Boron and Aluminoboron Anomaly of the Properties of Silicate Glasses"; Ye. Y. Galant, "On the Coordination Numbers of Aluminum and Boron in Some Glasses"; S. P. Zhdanov reported on structural changes in boron-silicate glasses; Ye. A. Poray-Koshits and S. P. Zhdanov reported on some controversial problems concerning the structure of boron-silicate glasses and their porous products; Ye. A. Poray-Koshits and N. S. Andreyev, "Submicroscopic Inhomogeneities in the Structure of Complex Glasses". The 15 reports at

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the 6th meeting dealt with the electric properties of glasses. L. M. Belyavskaya reported on the structure determination of glass with the aid of an inhomogeneous electric field; B. K. Vorob'yevskiy and V. I. Odelevskiy, "Structure and Properties of Some Oxide Glasses in the Light of the Polymer-theory of the Vitreous State"; K. L. Myuller reported on the agility and the degree of dissociation as functions of the ionic and atomar composition of the glass; V. I. Odelevskiy reported on the nature of dielectric losses in glasslike and crystalline aluminosilicates; V. P. Petrosyan, "Investigation of the Dielectric Polarization and the Losses in Phosphate Glasses"; V. A. Presnov, V. I. Gavan and L. K. Krasil'nikov reported on investigations of the conductivity of glasses in electric high-tension fields, K. K. Yevstrop'yev on the diffusion of Na^{22} and K^{42} in some silicate glasses, V. A. Ioffe, I. S. Yanchevskaya and G. I. Khvostenko on electric properties of crystalline and glasslike aluminosilicates. O. V. Mazurin spoke on his studies which were carried out under the supervision of Professor K. S. Yevstrop'yev at the Kafedra stekla LTI imeni Lensoveta (Chair for Glass of the Leningrad Technological Institute imeni Lensovet) in the report: "The Dependence of the Electroconductivity of Glasses on the Chemical Composition". V. A. Khar'yuzov, O. V. Mazurin and N. N. Zubkova gave investigation results on the specific electroconductivity of glasses of the system $SiO_2 - B_2O_3 - BaO$ in the tem-

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perature range of from 400-1300° and on the influence of additions of aluminum- and zinc oxide on the electric conductivity of these glasses. At the 7th meeting, 6 reports dealt with glasses as semiconductors, 9 with the coloring of glasses and the influence of radiation and 4 reports with technical properties of glasses. V. A. Ioffe and G. I. Khvostenko, "Electric Properties of Some Semiconductor Glasses". B. T. Kolomiyets, N. A. Goryunova and V. P. Shilo reported on methods for the production of chalcogenide glasses, on some of their general properties and on the limits of the vitreous state in the systems $Tl_2Se - As_2Se_3$, $Tl_2Se - Sb_2Se_3$, $Pb_2Se_3 - As_2Se_3$, Tl - As - Se. B. T. Kolomiyets and B. V. Pavlov reported on the optical absorption in a number of binary chalcogenide systems. B. T. Kolomiyets, T. N. Mamontova and G. Y. Kazarova reported on the electron conductivity of chalcogenide glasses. A. A. Vayypolin, Ye. A. Poray-Koshits, "Radiographic Investigation of the Structure of Vitreous Arsenic Chalcogenides". V. V. Tarasov and V. A. Romanovskiy reported on the chain structure of the vitreous arsenious sulphide determined by them with calorimetric measurements. K. P. Azarov reported on structure and properties of ferrous boron glasses and

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(3?)

YANCHEVSKAYA, I.S.

PHASE I BOOK EXPLOITATION SOV/5935

Vsesoyuznoye soveshchaniye po steklokristallicheskomu sostoyaniyu. 3d, Leningrad, 1959.

Steklokristallicheskoye sostoyaniye; trudy Tret'yego vsesoyuznogo soveshchaniya (Leningrad, 16-20 noyabrya 1959) (Vitreous State; Transactions of the Third All-Union Conference on the Vitreous State, Held in Leningrad on November 16-20, 1959) Moscow, Izd-vo AN SSSR, 1960. 534 p. Errata slip inserted. 3,200 copies printed. (Series: Its: Trudy)

Sponsoring Agencies: Institut khimii silikatov Akademii nauk SSSR. Vsesoyuznoye khimicheskoye obshchestvo imeni D.I. Mendeleyeva and Gosudarstvennyy ordena Lenina opticheskiy institut imeni S.I. Vavilova.

Editorial Board: A.I. Avgustinik, V.P. Barzakovskiy, M.A. Bezborodov, O.K. Botvinkin, V.V.Vargin, A.G. Vlasov, K.S. Yerofeyev, A.A. Lebedev, M.A. Matveyev, V.S. Molchanov, R.L. Myuller, Ye.A. Poray-Koshits, Chairman, M.A. Toropov, V.A. Florinskaya, A.K. Yakhkind; Ed. of Publishing House: I.V. Suvorov; Tech. Ed.: V.T. Bochever.

PURPOSE: This book is intended for researchers in the science and technology of glasses.

CONTENTS: The book contains the reports and discussions of the Third All-Union Conference on the Vitreous State, held in Leningrad on November 16-19, 1959. They deal with the methods and results of studying the structure of glasses, the relation between the structure and properties of glasses, the nature of the chemical bond and glass structure, and the crystallochemistry of glass. Fused silica, mechanism of vitrification, optical properties and glass structure, and the electrical properties of glasses are also discussed. A number of the reports deal with the dependence of glass properties on composition, the tinting of glasses and radiation effects, and mechanical, technical, and chemical properties of glasses. Other papers treat glass semiconductors and soda borosilicate glasses. The Conference was attended by more than 300 delegates from Soviet and East German scientific organizations. Among the participants in the discussion were B.V. Solomin, Ye. V. Kuvshinskiy, Yu.A. Gaser, V.P. Pryanishnikov, Yu. Ya. Gotlib, O.P. Mchedlov-Petrosyan, G.P. Mikhaylov, S.M. Petrov, A.N. Lazarev, D.I. Levin, A.V. Shatilov, N.S. Ploshchinskiy, A.Ya. Kuznetsov, E.V. Degtyareva, G.V. Byurganovskaya, A.A. Malenov, M.M. Shcherbov, P.Ye. Bokiy, E.K. Keller, Ya.A. Kuznetsov, V.P. Pozdnev, R.N. Shevelevich, Z.G. Pinsker, and O.S. Molchanova. The final session of the Conference was addressed by Professor I.I. Kitaygorodskiy, Honored Scientist and Engineer, Doctor of Technical Sciences. The following institutes were cited for their contribution to the development of glass science and technology: Gosudarstvennyy opticheskiy institut (State Optical Institute); Institut khimii silikatov AN SSSR (Institute of Silicate Chemistry, AS USSR); Fizicheskiy institut AN SSSR (Physics Institute AS USSR); Fiziko-tekhnicheskiy institut AN SSSR (Physicotechnical Institute AS USSR); Institut fiziki AN BSSR, Minsk (Institute of Physics, Academy of Sciences, Belorusskaya SSR, Minsk). Laboratory of Physical Chemistry of Silicates of the Institut obshchey i neorganicheskoy khimii AN BSSR, Minsk (Institute of General and Inorganic Chemistry, Academy of Sciences, Belorusskaya SSR, Minsk), Institut vysokomolekulyarnykh soyedineniy AS SSSR(Institute of High Molecular Compounds, AS USSR), Gosudarstvennyy institut stekla (State Institute for Glass), Gosudarstvennyy institut elektrotekhnicheskogo stekla (State Institute for Electrical Glass), Sibirskiy fiziko-tekhnicheskiy institut, Tomsk (Siberian Physicotechnical Institute, Tomsk), Leningradskiy gosudarstvennyy universitet (Leningrad State University), Moskovskiy khimiko-tekhnologicheskiy institut (Moscow Institute of Chemical Technology), Leningradskiy tekhnologicheskiy institut imeni Lensoveta (Leningrad Technological Institut imeni Lensovet), Belorusskiy politekhnicheskiy institut Minsk (Belorussian Polytechnic Institute, Minsk), Novocherkasskiy politekhnicheskiy institut (Novocherkassk Polytechnic Institute), and Sverdlovskiy politekhnicheskiy institut (Sverdlovsk Polytechnic Institute). The Conference was sponsored by the Institute of Silicate Chemistry AS USSR (Acting Director - A.S. Cotlib), the Vsesoyuznoye khimicheskoye obshchestvo im. D.I. Mendeleyeva (All-Union Chemical Society imeni D.I. Mendeleyev), and the Gosudarstvennyy ordena Lenina opticheskiy institut imeni S.I. Vavilova (State "Order of Lenin" Optical Institute imeni S.I. Vavilov). The 15 resolutions of the Conference include recommendations to organize a Center for the purpose of coordinating the research on glass, to publish a new periodical under the title "Fizika i khimiya stekla" (Physics and Chemistry of Glass), and to join the International Committee on Glass. The Conference thanks A.A. Lebedev, Academician, Professor, and Chairman of the Organization Committee; Ye.A. Poray-Koshits, Doctor of Physics and Mathematics, Member of the Organizational Committee; and R.L. Myuller, Doctor of Chemical Sciences, Member of the Organizational Committee. The editorial board thanks G.M. Nartsev, M.V. Volkenshteyn, L.I. Demkina, D.P. Dobychin, E.A. Dubrovo, V.A. Ioffe, and B.T. Kolomiyets. References accompany individual reports.

PHYSICOCHEMICAL PROPERTIES OF GLASSES

Dependence of Properties on Composition

APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R001962030006-4"

YANCHEVSKAYA, I.S.

PHASE I BOOK EXPLOITATION SOV/4379

Vsesoyuznaya konferentsiya po fizike dielektrikov. 2d, 1958

Fizika dielektrikov; trudy vtoroy vsesoyuznoy konferentsii (Physics of Dielectrics; Transactions of the 2d All-Union Conference on the Physics of Dielectrics) Moscow, Izd-vo AN SSSR, 1960. 532 p. Errata slip inserted. 5,000 copies printed.

Sponsoring Agency: Akademiya nauk SSSR. Fizicheskiy institut imeni P.N. Lebedeva.

Ed. of Publishing House: Ye.L. Starokadomskaya; Tech. Ed.: I.N. Dorokhina; Editorial Board: (Resp. Ed.) G.I. Skanavi, Doctor of Physics and Mathematics (Deceased), and K.V. Filippova, Candidate of Physics and Mathematics.

PURPOSE: This collection of reports is intended for scientists investigating the physics of dielectrics.

COVERAGE: The Second All-Union Conference on the Physics of Dielectrics held in Moscow at the Fizicheskiy institut imeni P.N. Lebedeva (Physics Institute imeni P.N. Lebedev) in November 1958 was attended by representatives of the principal scientific centers of the USSR and of several other countries. This collection contains most of the reports presented at the conference and summaries of the discussions which followed. The reports in this collection deal with dielectric properties, losses, and polarization, and with specific inductive capacitance of various crystals, chemical compounds, and ceramics. Photo-electrets, ferroelectric crystals, and various radiation and irradiation effects on dielectrics are investigated. The volume contains a list of other papers presented at the conference dealing with polarization, losses, and breakdowns of dielectrics, which were published in the journal Izvestiya AN SSSR, seriya fizicheskaya, Nos. ? and 2, 1960. No personalities are mentioned. References accompany each report.

36477
S/181/62/004/003/017/045
B117/B108

24.7800

AUTHORS: Ioffe, V. A., and Yanchevskaya, I. S.

TITLE: Dielectric resonance losses in aluminum silicates

PERIODICAL: Fizika tverdogo tela, v. 4, no. 3, 1962, 668 - 680

TEXT: The authors subjected crystalline aluminum silicates obtained by crystallization from solutions in readily fusible salts ($CaCl_2$, NaCl, LiCl) to X-ray, petrographic, and chemical examinations. This method of obtaining albite and β-spodumene in the form of dense polycrystalline druses will be published in ZhNKh. $CaAl_2Si_2O_8$ was produced by a ceramic procedure. These samples were X-ray investigated. tanδ and ε were measured on dry samples in vacuo in the frequency ranges of 50 kcps 5 Mcps and 100 cps - 10kcps. The effect of thermal treatment on the resonance absorption of samples was studied on albite, plagioclase no. 15, plagioclase no. 25, four microclines of different origins, and orthoclase. It was shown that the dielectric losses of natural aluminum silicates and of aluminum silicates obtained from chemically pure reagents are of the same order of magnitude. The dichroism observed showed that the symmetry of the absorption centers coincide with

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Dielectric resonance losses in

the crystal symmetry. It may be assumed therefore that these centers are not impurities but structural formations. The change in resonance absorption during the heating of feldspars can be explained by the position of the cations in the Si-Al-O structure. Resonance losses increase after heating to temperatures corresponding to the formation of a solid solution, i. e., the start of cation displacement from the state of equilibrium. The results obtained confirm the assumption that the cause of resonance losses in aluminum silicates is an aluminum oxygen tetrahedron with incomplete compensation of the electrostatic charge. To explain the experimental temperature and frequency dependences of $\tan\delta$, a model reflecting three processes is suggested: (1) Transition of the electron captured by a vacancy from the ground state to an excited state; (2) resonance absorption during the transition between the components of the excited degenerate level; the splitting of this level is very small and increases with temperature up to a certain constant value ($\sim 10^{-6}$ kT); (3) in some cases, the resonant frequency increases with temperature owing to strong interaction between resonator and medium: $\omega_{max} \sim 1/\tau$ (τ is the relaxation time). The position of these processes on the temperature scale depends on the near order round the defect. In aluminum silicates, electron processes are the principal causes of dielectric

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Dielectric resonance losses in ...

losses up to temperatures of the order of 500°K and frequencies of 10^5 - 10^7 cps. In spite of a high content in alkali ions, ionic processes are of no particular importance in these temperature and frequency ranges. Resonance absorption was also observed in cerium and praseodymium aluminates of perovskite structure. The results will soon be published. There are 10 figures and 15 references: 5 Soviet and 10 non-Soviet. The four most recent references to English-language publications read as follows: J. B. Jones, W. H. Tailor, Acta Cryst., 14, 443, 1961; H. D. Megaw. Min. Mag., 32, no.246, 226, 1959; J. Volger, Disc. Faraday Soc., 23, 63, 1957; J. Susmann. Techn. Rep. Electr. Res. Acc. N. - L/T 348-5 (1956).

ASSOCIATION: Institut khimii silikatov AN SSSR, Leningrad (Institute of Silicate Chemistry AS USSR, Leningrad)

SUBMITTED: October 27, 1961

Card 3/3

ZONN, Z.N.; YANCHEVSKAYA, I.S.

Crystallization of aluminosilicates in low-melting salts.
Zhur.neorg.khim. 7 no.9:2213-2216 S '62. (MIRA 15:9)

1. Institut khimii silikatov AN SSSR.

(Aluminosilicates) (Crystallization) (Fused salts)

IOFFE, V.A.; LEONOV, A.I.; YANCHEVSKAYA, I.S.

Nature of the high dielectric permeability of cerium aluminates of a perovskite-type structure. Fiz.tver.tela 4 no.7:1788-1795 Jl '62. (MIRA 16:6)

1. Institut khimii silikatov AN SSSR, Leningrad.
(Cerium aluminate) (Dielectric constants)

L 15206-66 EWT(1)/EWP(e)/EWT(m)/EWP(t)/EWP(b) LIP(c) JD/WW/GO/WH
ACC NR: AP6001225 (A) SOURCE CODE: UR/0363/65/001/012/2093/2099

AUTHOR: Ioffe, V.A.; Yanchevskaya, I.S.

ORG: Institute of Silicate Chemistry im. I.V. Grebenshchikov, Academy of Sciences SSSR (Institut khimii silikatov Akademii nauk SSSR)

TITLE: Study of defects of quartz structure

SOURCE: AN SSSR. Izvestiya. Neorganicheskiye materialy, v. 1, no. 12, 1965, 2093-2099

TOPIC TAGS: quartz crystal, thermoluminescence, EPR spectrum, luminescence center

ABSTRACT: The thermoluminescence of synthetic quartz samples containing the impurities Al, Na, Fe, Mn, Cu, Mg, Ti, Ca, and irradiated with x-rays in the 85 — 630K range and the electron paramagnetic resonance spectra of the samples were studied. A very sharp increase in the thermoluminescence intensity and a change in the thermoluminescence curve were noted as a result of several successive irradiation cycles at 85K and de-excitation up to 230K as compared to the de-excitation after a continuous irradiation of the same duration. Under such cyclic irradiation conditions, in addition to the six-component signals, a new narrow four-component signal due to the formation of a new trapping center appeared in the EPR spectrum. For all samples, the EPR spectrum consisted of six-component signals associated with the aluminum luminescence center. The thermoluminescence spectrum was the same for all the samples. Authors are grateful to L.I. Tsinober and I. Ye. Kamentsev for providing the

Card 1/2

UDC: 535.561:548.19

L 15206-66
ACC NR: AP6001225

samples of synthetic quartz. Orig. art. has: 7 figures and 1 table.

SUB CODE: 07, 20 / SUBM DATE: 13Apr65 / ORIG REF: 003 / OTH REF: 012

Card 2/2

YANCHEVSKAYA, V.N.

Correction of astigmatism in aphakia. Uch. zap. GNII glaz. bol. no.8:181-185'63. (MIRA 16:9)

1. Gosudarstvennyy nauchno-issledovatel'skiy institut glaznych boleznay imeni Gel'mgol'tsa.
(CRYSTALLINE LENS--ABNORMITIES AND REFORMITIES)
(ASTIGMATISM)

GOLYATO, Lidiya Petrovna; IZOTOVA, Mariya Alekseyevna; TER-OVAKIMYAN, Ivan Artem'yevich; YANCHEVSKAYA, Yekaterina Aleksandrovna; SHELYUTTO, Ye.P., red.; ZAYTSEVA, L.A., tekhn.red.

[Men's shirts] Sorochki vekhnie muzhskie. Pod obshchei red. I.A.Ter-Ovakimian. Moskva, Vses.koop.izd-vo, 1960. 95 p. (Shirts, Men's)

YANCHEVSKAYA, Ye.A., inzh.-konstruktor; IZOTOVA, M.A., red.; CHUKASHEVA, A.D., spetsred.; BERLYANT, I.Ya., red.; ZAYTSEVA, L.A., tekhn.red.

[Designing coats for children and adolescents] Konstruirovanie pal'to dlia detei i podrostkov. Moskva, Vses.koop.izd-vo, 1960. 99 p. (MIRA 14:6)

1. TSentral'naya opytno-tekhnicheskaya shveynaya laboratoriya. 2. TSentral'naya opytno-tekhnicheskaya shveynaya laboratoriya (for Yanchevskaya). 3. Glavnyy inzh.TSentral'noy opytno-tekhnicheskoy shveynoy laboratorii (for Izotova).
(Coats)

GOLYATO, Lidiya Petrovna; IZOTOVA, Mariya Alekseyevna; TER-OVAKIMYAN, Ivan Artem'yevich; CHUKASHEV, Aleksandr Dmitriyevich; YANCHEVSKAYA, Yekaterina Aleksandrovna; SHELYUTO, Ye.P., red.; ZAYTSEVA, L.A., tekhn. red.

[Easy to make women's apparel] Zhenskoe legkoe plat'e. [By] L.P.Gollato i dr. Moskva, Gos. izd-vo mestnoi promyshl. i khudozh. promyslov RSFSR, 1961. 465 p. (MIRA 15:2)
(Dressmaking)

1. YAICHEVSKIY, A. M.

2. USSR (600)

4. Electric Contactors

7. Polishing contacts with marble dust. Rab. energ. 2, no. 2, 1952.

9. Monthly List of Russian Accessions, Library of Congress, February 1953. Unclassified.

YANCHEVSKIY, D.F., gvardii mayor meditsinskoy sluzhby; SHCHEGLOV, B.N., podpolkovnik meditsinskoy sluzhby, kandidat meditsinskikh nauk

Diethylstibestrol in the treatment of tonsillitis. Voen.-med.zhur. no.3:87 Mr '56. (MLRA 9:9)
(STILBENEDIOL) (TONSILS—DISEASES)

SHCHEGLOV, B.N., podpolkovnik med. sluzhby, kand.med.nauk; YANCHEVSKIY, D.F., gvardii mayor med. sluzhby

Some characteristic features of the epidemiology and clinical aspects of Botkin's disease. Voen.med.zhur. no.3:90 Mr '57. (MIRA 11:3)
(HEPATITIS, INFECTIOUS)

YANCHEVSKIY, D.F., gvardii mayor med. sluzhby; BURENIN, V.P., mayor med. sluzhby

Detecting dysentery pathogens in the appendix during appendicitis.
Voen.-med. zhur no.5:90 My '57 (MIRA 12:7)
(SHIGELLA) (APPENDIX(ANATOMY))

YANCHEVSKIY, B.A., inzhener.

Damage to propeller shafts due to corrosion. Sudostroenie 22 no.4: 16-18 Ap '56. (MLRA 9:9)
(Corrosion and anticorrosives) (Propellers)

YANCHEVSKIY, E.A., inzhener.

Balancing deformed ship shafts. Sudostroenie 23 no.1:59-65 Ja '57. (MIRA 10:10)

(Shafts and shafting) (Ships--Maintenance and repair)

YANCHEVSKIY, E.A.

YANCHEVSKIY, E.A., inzh.

Shaft straightening. Sudostroenie 23 no.11:42-46 N '57. (MIRA 11:1)
(Shafts and shafting) (Ships--Maintenance and repair)

YANCHEVSKIY, K.,(DECEASED) PA 55/49T92

USSR/Physics Nov 48
Electron Microscope

"Illumination of Objects in Electron Microscopes," K. Yanchevskiy (deceased), 3 pp

"Dok Ak Nauk SSSR" Vol LXIII, No.2

Comparison of the work of two microscopes with lighting devices, one with and one without a condenser, showed that a simple lighting apparatus makes it possible to work with small anode currents (20 - 30 micro-amps), generally considered sufficient only with specially focused lenses. Submitted by Acad A. A. Lebedev 2 Sep 48.

55/49T92

YANCHEVSKIY, V. [IAnchevs'kyi, V.I.]

Improvement of the elevator of the SNT-2,1 beet loader. Mekh. sil'.hosp. 13 no.12:17-18 D '62. (MIRA 16:2)

1. Derzhtekhnaglyad Bershads'kogo rayviddilennya "Sil'goeptekhniki" na Vinnichchini.

(Beets) (Loading and unloading)

ZHABITSKIY, G.; DUBINSKIY, D.; YANCHEVSKIY, V., red.

[On amateur radio waves] Na molodezhnoi radiovolne. Moskva, Gos.kom-t po radioveshchaniiu i televideniiu, 1962. 47 p. (MIRA 17:4)

1. Sekretar' TSentral'nogo komiteta Leninskogo kommunisticheskogo soyuza molodezhi Belorussii (for Zhabitskiy). 2. Starshiy redaktor peredach dlya molodezhi Belorusskogo radio (for Dubinskiy)

ACCESSION NR: AP4043733 S/0021/64/000/008/1080/1084

AUTHOR: Kornyev, K. A. (Kornev, K. A.)(Corresponding member AN UkrSSR); Yancheva'ky'y, V. A. (Yanchevskiy, V. A.); Gryekov, A. P. (Grekov, A. P.)

TITLE: Kinetics of the polycondensation of dihydroxylic acid dihydrazides with dicarboxylic acids

SOURCE: AN UkrRSR. Dopovidi, no. 8, 1964, 1080-1084

TOPIC TAGS: polycondensation, polycondensation kinetics, sebacic acid dihydrazide, sebacic acid, adipic acid, polyazide

ABSTRACT: The kinetics of the polycondensation of sebacic acid dihydrazide with adipic or sebacic acid in m-cresol has been studied at 140, 160, and 180C. The study was undertaken because polyazides of carboxylic acids exhibit valuable properties (stability to acids, alkalis, and organic solvents and heat resistance) and form fibers and films and because of the absence of data on the kinetics of this polycondensation. The study showed that the polycondensation obeys a second-order equation and proceeds through the step of the forma-

Card 1/2

ACCESSION NR: AP4043733

tion of the reaction products of one molecule of the dihydrazide with one molecule of the acid ("dimer" step). The rate constants, the activation energies, and the entropies of activation of the "dimer" and "polymer" steps were determined. Orig. art. has: 2 figures and 1 table.

ASSOCIATION: Insty*tut khimiyi polimeriv i monomeriv AN UkrSSR (Institute of the Chemistry of Polymers and Monomers, AN UkrSSR)

SUBMITTED: 06Dec63 ENCL: 00

SUB CODE: OC, GC NO REF SOV: 008 OTHER: 004

Card 2/2

AUTHOR: Yanchevskiy, V.A., Grebe, A.P., Karpov, E.A.

TITLE: Synthesis and study of some polyhydroxides of dicarboxylic acids

Card 2/2

GREKOV, A.P.; YANCHEVSKIY, V.A.; KORNEV, K.A.

Quantitative determination of hydrazides of dibasic carboxylic acids by potentiometric titration with sodium nitrite. Zhur. anal. khim. 19 no.2:260-261 '64.
(MIRA 17:9)

1. Institut khimii polimerov i monomerov AN UkrSSR, Kiyev.

YANKOVSKIY, V.I.; GRINKOV, A.P.; [illegible], K.A.

Reactions of condensation with hydrazine derivatives. Part 1: Kinetics of aliphatic dicarboxylic acid reactions with dihydrazide of sebacic acid in *m*-cresol. Zhur. org. khim. 1 no.1:40-44 Ja '65. (MIRA 18:5)

1. Institut khimii polimerov i monomerov AN UkrSSR.

SOURCE: Byulleten' izobreteniy [illegible]

TOPIC TAGS: caprolactam, monomer, acetic anhydride, acetic acid, sodium hydroxide

ABSTRACT: This Author Certificate introduces a method for purifying ε-caprolactam by distillation in a vacuum, preceded by a chemical treatment with acid and alkaline [illegible] the monomer, the commercial product is

ASSOCIATION: none

SUBMITTED: 18Apr62 ENCL: 00 SUB CODE: OC

NO REF SOV: 000 OTHER: 000

Card 1/1 JO

AUTHOR: Yurchevskiy, V. A.; Grekov, A. P.; Kornev, K. A.

Kinetics of the

ASSOCIATION: Institut khimii vysokomolekulyarnykh soyedineniy AN

SUB CODE: GC, OC

NO REF SOV: 004 OTHER: 004

L 22747-66 EWT(m)/EWP(j)/T RM
ACC NR: AP6010114 (A) SOURCE CODE: UR/0190/66/008/003/0490/0498

AUTHORS: Yanchevskiy, V. A.; Grekov, A. P.; Kornev, K. A.

ORG: Institute of Chemistry of High-Molecular Compounds, AN SSSR (Institut khimii vysokomolekulyarnykh soyedineniy AN SSSR)

TITLE: Investigation of ε-caprolactam polymerization in the presence of hydrazides of carboxylic acids

SOURCE: Vysokomolekularnyye soyedineniya, v. 8, no. 3, 1966, 490-498

TOPIC TAGS: carboxylic acid, caprone, hydrazide, polymerization, entropy, kinetic equation, autocatalysis, activation energy, polymerization initiator

ABSTRACT: Polymerization of ε-caprolactam in the presence of hydrazides of carboxylic acids at temperatures of 230-270C has been investigated. In all cases, the reaction was established to be of autocatalytic nature. The kinetics of ε-caprolactam polymerization in the presence of polymerization initiators is described with first-order equations for the reversible reactions. The rate constants, energies, enthropies of activation, and frequency factors were determined. The probable reaction mechanism of ε-caprolactam polymerization in the

Card 1/2 UDC: 66.095.26+678.675

L 22747-66
ACC NR: AP6010114

presence of hydrazides of carboxylic acids was suggested. Orig. art. has: 5 figures, 15 formulas, and 1 table. [Based on author's abstract] [NT]

SUB CODE: 07,11/ SUBM DATE: 05Apr65/ ORIG REF: 013/
OTH REF: 004/

Card 2/2 UDC

Yanchevskiy, U.A.

SOV/32-25-8-39/44

26(4)
AUTHORS: Gokhshteyn, Ya. P., Volkov, A. F., Kan'shin, S. V., Yanchevskiy, U. A.

TITLE: A New Model Oscillographic Polarograph

PERIODICAL: Zavodskaya laboratoriya, 1959, Vol 25, Nr 8, pp 1008-1012 (USSR)

ABSTRACT: A new type cathode-ray polarograph was designed which makes possible the detection of low concentrations of elements and organic compounds, the determination of the capacity of the binary electrical layer on dropping and solid electrodes, the impedance of the electrolytic cell, the velocity and the reversibility of the electrode reactions and the study of surface and adsorption phenomena. The instrument operates with an accuracy of ± 2% at concentrations of 10^{-3} - 10^{-5} mol/l and of ± 3% at 10^{-6} - 10^{-7} mol/l. The scheme of the instrument permits a periodical and a unique development of the various fixed valuities of the potential variations and this way both an Hg-dropping electrode and a stationary Hg-electrode can be used and the sensitivity can be considerably increased. One

Card 1/3

can operate simultaneously with two cells which are reversed by a polarized relay. The polarographic cell receives simultaneously a constant negative tension and a positive sawtooth-shaped tension which eliminates the deformation of the curve by the current intensity. The radiotechnical wiring of the instrument was designed based on electron-ray tube type 1J10-36 and consists of the following main units (Fig 1): a generator for the linear-varying tension (the potential variations are determined by means of a magneto-electric loop-oscillograph M-10) with a thyratron cathode TG1-0.1/0.3, a compensator for the lead resistance of the cell (with a network 12kHz) and a compensator of the capacity current, a synchroniser and a single vibrator (1Zh) for the delay of the impulse (synchronized with the dropping period of the Hg), an amplifier for the variable ray deflination (with networks 6Zh4, 12Zh1) and a current feeder unit. The article gives data on the sensitivity (table) of the instrument and examples of investigations made with oscillograms obtained at the electrolysis of a 1 n KCl-solution, which contained 5.0 γ/ml of Pb^{2+} and Cd^{2+}, and a 1 n KCl-solution containing 0.5 γ/ml of Sb^{3+} and Bi^{3+} and a 1 n KCl-solu-

Card 2/3

tion with 0.1 γ/ml of Cd^{2+}. There are 5 figures, 1 table, and 1 Soviet reference.

ASSOCIATION: Institut geokhimii i analiticheskoy khimii Akademii nauk SSSR (Institute of Geochemistry and Analytical Chemistry of the Academy of Sciences, USSR)

Card 3/3

YANCHEVSKIY, V.YA.

32-8-45/61

AUTHOR GOKHSHTEYN, Ya. P., KUZMIN S.V., VOLKOV A.F., YANCHEVSKIY V.Ya.

TITLE Oscillographic Polarograph "Geokhi". (Ostsillograficheskiy polyarograf "Geokhi".- Russian)

PERIODICAL Zavodskaya Laboratoriya 1957, Vol 23, Nr 8, pp 988-992 (U.S.S.R.)

ABSTRACT A new highly sensitive device for carrying out analyses is concerned here. The experiments of the quantitative determinations of small contents of Bi, Sb, Cd, and Pb at high content of uranium are given as examples. The radiotechnical scheme of the apparatus is given here which shows that to the main part of the apparatus there belongs the generator scheme with two tubes, a pentode with reversed negative binding in the cathode; in the wiring circuit of the second stage there is potentiometer which regulates the amplitude of the saw-tooth-like oscillations which are then recorded by the generator by means of a capacitor. The next tube (3) has an oscillation limiter the treshold of which is regulated by an alternating resistance. The oscillations are received by the next tube (4) which has an electrolytical cell and a cathode repeater, after which they are transmitted to the next tube (8) with the cascade

CARD 1/2

of the horizontal amplification. A potentiometer here serves as an amplitude regulator. The electrolytical cell is galvanically connected with the cathode repeater which is regulated by the next alternating resistance. Thus either a positive or a negative voltage can be obtained here which is gauged by tube voltameters. For measuring the amplitude of the saw-tooth-like voltage there serves the next tube (6) which works as a voltmeter. The voltage is furthermore transmitted by the resistance (19) of the electrolytic cell to an amplifier with tube (7) in the first cascade. All cascades with the exception of end-cascades are fed with the voltage 180 V by the electron stabilizer (tube 16, 17, 18). Tube (19) feeds an electron beam tube (20) which has at the output from the filter the voltage 1800 V. Moreover the apparatus has various additional aggregates which increase its sensitivity. Examples of the application of the apparatus and the exploitation of the results are given gere. There are 5 figures, 2 tables,

ASSOCIATION: Institute for Geochemistry and Analytic Chemistry of the Academy of Sciences of the U.S.S.R.
(Institut geokhimii i analiticheskoy khimii Akademii nauk SSSR)

AVAILABLE: Library of Congress.

CZECHOSLOVAKIA / Chemical Technology. Fats and Oils. Waxes. Soaps. Washing Agents. Flotation Reagents. H

Abs Jour: Ref Zhur-Khimiya, No 22, 1958, 75343.

Author : Yanchik.
Inst : ~~Not given.~~
Title : The Determination of the Refractive Point of Flax Oil.

Orig Pub: Prumysl potravin, 1958, 9, No. 2, 107-109.

Abstract: An improved method for testing oils for their refractive point was suggested. The method consists in the determination of cloudiness in an oil sample which (cloudiness) appears

Card 1/2

Waxes. Soaps. Washing Agents. Flotation Reagents.

Abs Jour: Ref Zhur-Khimiya, No 22, 1958, 75343.

Abstract: after testing and is compared with the standard scale of mastic's suspensions of various concentration in water. A comparison between three methods for the determination of refractive point is furnished.

Card 2/2

YANCHILIN, L.

4712

YANCHILIN, L. Podgotovka Kormov K Skarmlivaniyu. (Materialy V Pomoshch' Lektoru) Barnaul, 1954. 24 s. 20 sm. (Lektsionnoye Byuro Upr. Kul' tury Alt. Krayispolkoma). 1,560 Ekz. B. ts- Bibliogr: S23 (19Nazv)-(55-577) P 636.085.6 and(014.3)

SO: Letopis' Zhurnal' nykh Statey, Vol.7, 1949

YANCHILIN, L. V., Cand Agric Sci (diss) -- "The rational use of corn with added peas in the green and silaged form in the rations of milch cows". Moscow, 1960. 19 pp (All-Union Sci Res Inst of Animal Husbandry), 150 copies (KL, No 15, 1960, 138)

VISHNYAKOV, N.K.; YANCHILIN, L.V. Prinimali uchastiye: ABRAMOCHKIN, V.A.; GUSEV, R.G.; IVANOV, P., red.; BELOVA, N., tekhn.red.

[Livestock feeding in the row crop system of agriculture] Kormlenie zhivotnykh pri propashnoi sisteme zemledeliia. Moskva, Sel'khozizdat, 1963. 133 p. (MIRA 16:8)

1. Nauchnye sotrudniki Altayskogo nauchno-issledovatel'skogo instituta sel'skogo khozyaystva (for Vishnyakov, Yanchilin, Abramochkin, Gusev).

(Feeding) (Feeds)

KARPENKO, G.V.; YANCHISHIN, F.P.

On the simultaneous effect of corrosive agents and stress concentration on steel strength. Dop.AN URSR no.6:525-528 '55. (MLRA 9:7)

1.Institut mashinoznavstva ta avtomatiki AN URSR. Predstaviv diysniy chlen AN URSR G.M.Savin.
(Steel--Testing)

SOV/137-57-10-20349

Translation from: Referativnyy zhurnal, Metallurgiya, 1957, Nr 10, p 278 (USSR)

AUTHORS: Karpenko, G.V., Yatsyuk, A.I., Yanchishin, F.P.

TITLE: Influence of Mercury Upon the Strength and Fatigue Strength of Structural Materials (Vliyaniye rtuti na prochnost' i vynoslivost' konstruktsionnykh materialov)

PERIODICAL: Nauchn. zap. In-ta mashinoved. i avtomatiki. AN UkrSSR, 1957, Vol 6, No 5, pp 42-49

ABSTRACT: An investigation is made of the influence of Hg (amalgamation) upon the mechanical properties of steel, brass, and duralumin. It is found by tensile testing that liquid Hg significantly reduces the σ_b of specimens of brass (by 32%), while that of duralumin drops by 12%, and the δ of brass and duralumin drops to 0. Liquid Hg has no influence whatever upon polished 20Kh steel and red copper. Fatigue strength is considerably reduced in testing by cyclic loading. Surface rolling of the specimens results in a considerable increase in their fatigue strength both in Hg and in air. The authors hold that the decline in mechanical properties is due to the penetration of the Hg, via a system of defects, into specimens that have not had surface

Card 1/2

Influence of Mercury Upon the Strength (cont.)

rolling. The Rebinder adsorptive-cleavage effect makes it appearance under these conditions. Surface rolling closes all the surface defects, and this renders the metal insusceptible to the action of Hg.

P.N.

Card 2/2

YANCHISHIN, F. P.: Cand Master Tech Sci (diss) -- "The effect of active liquid media on the strength of steel in the presence of stress concentrators". L'vov, 1958. 15 pp (Min Higher Educ Ukr SSR, L'vov Polytech Inst), 150 copies (KL, No 2, 1959, 123)

YANCHISIN, F.P.

5(4) PHASE I BOOK EXPLOITATION SOV/2610

Akademiya nauk Ukrayins'koyi RSR. Instytut mashynoznavstva ta avtomatyky

Deyaki pytannya fizyko-khimichnoyi mekhaniky metaliv
(Physical, Chemical, and Mechanical Properties of Metals)
Kyyiv, 1958. 142 p. 1,000 copies printed.

Resp. Ed.: H.V. Karpenko, Doctor of Technical Sciences; Ed. of Publishing House: V.I. Pechkovs'kyy; Tech. Ed.: V.I. Yurchyshyn.

PURPOSE: The collection is intended for metallurgical engineers desiring information on fatigue and corrosion.

COVERAGE: The collection of 15 articles in Ukrainian compiled by 9 authors engaged in fatigue and corrosion research, is devoted to the subject of engineering practices in testing the fatigue properties of metals, mainly steel, with a particular emphasis on the phenomenon of corrosion fatigue and the effect of various liquid media upon such fatigue. Methods of investigation are described

Card 1/5

and the results evaluated. The collection is dedicated to the sixtieth anniversary of the Academician Petro Oleksandrovych (Petr Aleksandrovich) Rebinder, an eminent metallurgist. The tests were conducted at the Instytut budivel'noyi mekhaniky (Structural Mechanics Institute), Kiyev, Instytut mashynoznavstva ta avtomatyky (Machine-building and Automation Institute), L'vov, both under the sponsorship of the Ukrainian Academy of Sciences, and at the Politekhnichnyy institut (Polytechnical Institute), Khar'kov. References follow each article.

TABLE OF CONTENTS:

Physical, Chemical, and Mechanical (Cont.) SOV/2610

Yatsyuk, A.I., V.T. Stepurenko, and F.P. Yanchyshyn, Methods of Investigating the Fatigue Strength of Metals in Aggressive Liquid Media with the NU Testing Machine 140

AVAILABLE: Library of Congress (TA465.A42)

Card 5/5

TM/gmp
12-22-59

YANCHISHIN, F. P.

32-2-43/60

AUTHORS: Yatsyuk, A. I., Stepurenko, V. T., Yanchishin, F. P.

TITLE: A Device for Testing Metals for Their Fatigue Strength in Active Liquid Media (Prisposobleniye dlya ispytaniya metalla na ustalostnuyu prochnost' v zhidkikh aktivnykh sredakh)

PERIODICAL: Zavodskaya Laboratoriya, 1958, Vol. 24, Nr 2, pp. 229-230 (USSR)

ABSTRACT: The given figure and description show that the test samples, compared to those according to G. V. Akimov (reference 2), were a little changed, and that at the testing machine of the type ... around the test sample a rubber cylinder with an inlet and outlet tube was fixed. The liquid, under the influence of which the test samples are to be stressed, can be stationary or continuously passing through. The influence of some liquids upon a perlite-ferrite steel is shown by curves. They show that the active liquids reduce the fatigue region compared to the influence of the air. So investigations of this kind are absolutely necessary for

Card 1/2

A Device for Testing Metals for Their Fatigue Strength in Active Liquid Media 32-2-43/60

machine parts which are exposed to such media. The device described above has already been used for two years. There are 3 figures and 1 reference, which is Slavic.

ASSOCIATION: Institute of Mechinery and Automation AS Ukrainian SSR (Institut mashinovedeniya i avtomatiki Akademii nauk USSR)

AVAILABLE: Library of Congress.

1. Fatigue (Mechanics)-Testing equipment 2. Metals-Fatigue-Testing equipment

Card 2/2

S/137/61/000/001/041/043
A006/A001

Translation from: Referativnyy zhurnal, Metallurgiya, 1961, No. 1, p. 44, # 1I391

AUTHOR: Yanchishin, F.P.

TITLE: On the Strength of Steel Specimens With Stress Concentrators

PERIODICAL: "Nauchn. zap. In-ta mashinoved. i avtomat. AS USSR", 1960, No. 7, pp. 110 - 113

TEXT: The author studied the effect of notches on static and fatigue strength in air and liquid media (water and 3% NaCl solution) of 20X (20Kh), 40X (40Kh) and "45" grade steel in annealed and improved state, and in quench-hardened state after heating by high-frequency current. It was established that notches affected more the endurance strength in air than in liquid media. Quenching after high frequency heating of notched specimens eliminates sensitivity to stress concentration. Stress concentrators increase σ_b of annealed steel specimens and reduce σ_b of quench hardened steels. There are 2 references.

T. F.

Translator's note: This is the full translation of the original Russian abstract.

Card 1/1

S/735/61/000/000/011/014

AUTHORS: Yanchishin, F.P., Maksimovich, G.G.

TITLE: Equipments for endurance testing of metals in fluid media.

SOURCE: Akademiya nauk Ukrainskoy SSR. Institut mashinovedeniya i avtomatiki. Mashiny i pribory dlya ispytaniy metallov. Kiyev, 1961, 95-98.

TEXT: Equipments for the endurance testing in fluid media of standard and micro-specimens are described. Test data are adduced. Utilizing existing design principles, several equipments have been constructed, one of which is a lever-type machine which tests simultaneously 4 normal-size specimens with a maximum axial load of 3,000 kg; analogous machines for the testing of microspecimens have also been built. Four specimens, interlinked with clamping links which carry cups for liquid test baths, are suspended in a single vertical chain, the top end of which is hinge-clamped onto a threaded rod supported by a wingnut which rests on a 2-column-supported bracket. The lower end of the specimen chain is hinge-fastened to a crank, hinge-supported by the base; the long end of the crank, with a mechanical advantage of 50:1, supports a weight. To apply tension to the specimen chain, the weight is released gradually by means of a wing-nut-supported hanging threaded rod and a damper spring. A pointer attached to the crank provides a reading of the angular

Card 1/2

Equipments for endurance testing of metals in fluid media. S/735/61/000/000/011/014

position of the crank. Data are adduced on endurance tests of cast iron СЧ 21-40 (SCh 21-40) containing 3.25%C, 0.39%Mn, 2.52%Si, 0.12%P. Specimens 12 mm dia and an effective working length of 60 mm were tested in air, faucet water, a 3% acqueous solution of NaCl, and a 2% solution of oleic acid in MC (MS) oil. The abnormally large diameter was chosen to minimize the effect of the graphitic inclusions in the perlitic-ferritic cast iron tested on the scatter of the results. The endurance strength of the test specimens in a three-month test was 20% lower in water and 37% lower in the 3% NaCl solution than in air and in the 2% oleic-acid solution in MC (MS) oil, the effect of which was not detectable. The equipment was adapted to the testing of microspecimens by changing the mechanical advantage to 5:1. Laboratory tests confirmed the precision and practicability of the equipment for both standard-size and micro-size specimens. There are 3 figures and 7 references (listed under 6 numbers), of which 5 are Russian-language (Soviet) and 2 are English-language (Mc Vetty, no initials given, ASTM, Proc., P. II, 1937, 235; ASME, Trans., February 1945; both listed as a single cited reference).

ASSOCIATION: None given.

SHVED, M.M.; YANCHISHIN, F.P.

Effect of hydrogen on the hardness of steel. Vliian.rab.sred.na svois.stali no.1:68-72 '61. (MIRA 15:5)
(Steel—Hydrogen content) (Hardness)

S/137/62/000/010/014/028
A052/A101

AUTHORS: Maksimovich, G. G., Baranetskiy, V. S., Nagornyy, S. V., Yanchishin, F. P.

TITLE: The effect of Hg on the mechanical properties of brass

PERIODICAL: Referativnyy zhurnal, Metallurgiya, no. 10, 1962, 83 - 84, abstract 10I546 ("Nauchn. zap. In-ta mashinoved. i avtomatiki. AN UkrSSR. Ser. mashinoved.", 7, 1961, 26 - 31)

TEXT: The effect of Hg on the mechanical properties of a brass containing 58 - 98% Cu and having different porosity was studied. Different porosities and chemical compositions of microsamples were produced by a different degree of Zn evaporation from microsamples 1 mm in diameter prepared from JIC 59-1 (IS59-1) brass with $\alpha+\beta$-phase structure. Pores, fairly regularly distributed over the cross-section, formed in the microsamples after evaporation in a vacuum. Hg was applied to the surface of the microsamples by immersing them in a saturated $HgNO_3$ solution for 1 or 60 sec. The changes in specific gravity d, total weight, σ_b and δ of the samples in the air and in Hg were studied. d changes consider-

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S/137/62/000/010/014/028
A052/A101

The effect of Hg on the mechanical properties of brass

ably less than the absolute weight of the samples; this fact is connected with the decrease of dimensions of the samples on Zn evaporation. σ_b decreases with an increase of porosity, a decrease of Zn content and at testing in the air and in Hg. With an increased porosity the ductility of microsamples tested in the air decreases. δ of Hg-coated samples decreases by $\sim 50\%$ for samples containing 58 or 61.5% Cu and is constant for samples with $\geq 76\%$ Cu.

N. Sladkova

[Abstracter's note: Complete translation]

Card 2/2

MAKSIMOVICH, G.G.; YANCHISHIN, F.P.; KARPENKO, G.V.

Effect of liquid media on the fatigue resistance of cast iron.
Nauch.zap.IMA AN URSR. Ser.mashinoved. 7 no.7:32-36 '61.
(MIRA 15:1)

(Cast iron--Fatigue)

MAKSIMOVICH, G.G.; YANCHISHIN, F.P.

Resistance of duraluminum to the action of active liquid media.
Nauch.zap.IMA AN URSR. Ser.mashinoved. 7 no.7:37-40 '61.
(MIRA 15:1)

(Duraluminum--Testing)

44053

S/676/62/009/000/007/010
A062/A101

AUTHORS: Maksimovich, G. G.; Yanchishin, F. P.

TITLE: Micromechanical and ordinary tests on prolonged strength of metals

SOURCE: Akademiya nauk Ukrayins'koyi RSR. Instytut mashynoznavstva i avtomatyky, L'viv. Nauchnyye zapiski. Seriya mashinovedeniya. v. 9, 1962, Voprosy mashinovedeniya i prochnosti v mashinostroyenii. no. 8, 68 - 71

TEXT: Prolonged tensile tests were carried out, both by ordinary and micromechanical methods, on cast iron, steel and brass samples subjected to the influence of fluid working media. The fluids chosen were: 1) oil, activated by 2% of olein acid, 2) water, 3) a 3% water solution of NaCl and 4) air. Some of the brass micro-samples were amalgamated in a supersaturated solution of $Hg(NO_3)_2 \cdot 0.5\ H_2O$. The tests were made at room temperature during 720 hours for the steel and brass micro-samples, and 2,160 hours for the cast iron samples. The results, represented by graphs, show that the prolonged tensile strength decreases in a similar way on the steel and brass micro-samples. The relative de-

Card 1/2

Micromechanical and ordinary tests on...

crease (in %) after 720 hours is insignificant in the surface-active medium (oil activated by 2% of olein acid), and important (63%) on the brass micro-samples amalgamated by mercury. In the chemically active medium (3% solution of NaCl) the decrease was of 14% and 10% for the steel and brass micro-samples, respectively. The various results are briefly interpreted. There are 2 figures.

SUBMITTED: June 18, 1961

Card 2/2

B/123/62/000/017/002/006
A052/A101

AUTHORS: Maksimovich, G. G., Yanchishin, F. P.

TITLE: Resistance of duralumin to active liquid media

PERIODICAL: Referativnyy zhurnal, Mashinostroyeniye, no. 17, 1962, 17 - 18, abstract 17A119 ("Nauchn. zap. In-ta mashinoved. i avtomatiki. AN UkrSSR. Ser. mashinoved.", no. 8, 1961, 37 - 40)

TEXT: The results are reported of an investigation of the effect of liquid media (2% oleic acid oil solution and 3% NaCl aqueous solution) on the fatigue strength σ_{-1} of "Д16 (D16) duralumin. The tests were carried out on smooth samples with ring grooves on the basis of 10^8 cycles. Standard НУ (NU) machines working on bending with rotation were used at a symmetric cycle with a loading frequency of 3,000 rpm. Liquid media reduce σ_{-1} of smooth samples in particular at low stress levels. In the case of samples with ring grooves a reduction of endurance is observed at high stress levels only (on the basis of 10^5 cycles in activated oil by 31% and in NaCl solution by 22% on an average).

[Abstracter's note: Complete translation]

Card 1/1

10.8100

42747

S/124/62/000/011/017/017
D234/D308

AUTHORS: Maksimovich, G. G., Yanchishin, E. P., Popovich, V. V., Nagirnyy, S. V. and Karpenko, G. V.

TITLE: Machines for micromechanical testing of metals for durability under variable extension in different media

PERIODICAL: Referativnyy zhurnal, Mekhanika, no. 11, 1962, 68, abstract 11V570 (In collection: Mashiny i pribory dlya ispytaniy metallov, Kiev, AN UkrSSR, 1961, 41-46)

TEXT: For fatigue testing of micro-specimens 1 - 3 mm in diameter under variable stress, a machine has been designed in which the variable load is realized by means of a vibrator with uniform rotation of unbalanced mass. Constant load is produced by weights suspended on spring through the vibrator. Total load is determined by ring dynamometer whose deformations are recorded by wire resistance tensometers. Programmed loading is possible by means of a d.c. motor with additional variable resistance in the supply circuit. Test data are given for specimens of steel in 45 different media. [Abstracter's note: Complete translation.]

Card 1/1

YANCHISHIN, F.P.; MAKSIMOVICH, G.G.

Effect of mercury on the strength of brass. Nauch.zap.IMA AN URSR.Ser.mashinoved. 9:37-40 '62. (MIRA 15:12)
(Mercury) (Brass--Testing)

MAKSIMOVICH, G.G.; YANCHISHIN, F.P.

Micromechanical and regular testing of the continuous strength of metals. Nauch.zap.IMA AN URSR.Ser.mashinoved. 9:68-71 '62. (MIRA 15:12)

(Metals--Testing)

S/032/62/028/012/012/023
B180/B102

AUTHORS: Maksimovich, G. G., and Yanchishin, F. P.

TITLE: Stress-rupture test for metals in liquid media

PERIODICAL: Zavodskaya laboratoriya, v. 28, no. 12, 1962, 1485 - 1486

TEXT: A deadweight-loading lever-type creep testing apparatus is proposed (Fig. 1). Instead of the usual furnace, it has vessels 7, which contain the liquid medium at room temperature, and the specimen. The lever transmission ratio is 1:5. Besides stress-rupture testing, four microspecimens can be soaked under load simultaneously in the media, to test the effect on their mechanical properties. The media were: mains' water, 3% aqueous solution of NaCl, mercury, and oil MC (MS) activated with 2% oleic acid. Normal test specimens of cast iron CY 21-40 (SCh 21-40) were used, and microspecimens (test length 5 mm, diam., 1 mm.) of steel 45 and brass JC 59-1 (LS 59-1). To relieve the internal stresses and cold work effects, the microspecimens were annealed, the steel in vacuo at 830°C for 15 hr, and the brass at 300°C for 2 hr. The tests lasted for 720 hr on the steel and brass, and for 2160 hr on the iron

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specimens. Brass microspecimens, wetted in a supersaturated solution of mercuric nitrate, were tested in the mercury. The results (Fig. 2) show that long-time strength is reduced by corrosive and surface-active media, particularly by active metal melts. This is due to adsorption on the surface and on cracks etc. arising during plastic deformation. In the corrosive media, besides this, chemical compounds are formed, which reduces the strength of the metal. There are 2 figures.

ASSOCIATION: Institut mashinovedeniya i automatiki Akademii nauk USSR (Institute of Theoretical Engineering and Automation of the Academy of Sciences UkrSSR)

YANCHISHIN, F.P.

Effect of mercury on the strength of [illegible] rab. sted na svois. ma . no.2:53-55 '63. (MIRA 17:10)

APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R001962030006-4"

MAKSIMOVICH, G.G.; YANCHISHIN, F.P.; TKACHENKO, N.N.; NAGIRNYY, S.V.; BARANETSKIY, V.S.

Effect of round hole type stress concentrators on the mechanical characteristics of brass. Vliian. rab. sred na svois. mat. no.2: 56-60 '63. (MIRA 17:10)

MAKSIMOVICH, G.G.; YANCHISHIN, F.F.

Stress-rupture strength of cast iron and brass in liquid media. Vliian.rab. sred na svoistva mat. no.2:97-101 '63. (MIRA 17:10)

MAKSIMOVICH, G.G.; YANCHISHIN, F.P.

Effect of grain size on short-term and stress-rupture strength of brass in active media. Vliian. rab. sred na svois. mat. no.3:52-57 '64.
(MIRA 17:10)

ACCESSION NR: AT4033068 S/2676/64/010/000/0129/0133

AUTHOR: Maksimovich, G.G.; Yanchishin, F. P.

TITLE: Effect of roller hardening on endurance of duralumin in active liquid agents

SOURCE: AN UkrSSR. Institut mashinovedeniya i avtomatiki, Lvov. Nauchny*ye zapiski. Seriya mashinovedeniya, v. 10, 1964. Voprosy* mashinovedeniya i prochnosti v mashinostroyenii (Problems of mechanical engineering and strength of materials in machinery manufacture), no. 9, 129-133.

TOPIC TAGS: duralumin, duralumin D-16, duralumin fatigue strength, duralumin roller hardening, attacked duralumin fatigue strength, roller hardening

ABSTRACT: Samples of duralumin D-16 were hardened by rolling (specimen revolution 44 $\frac{\pi}{30}$ radans/sec., pressure on roller 320 n, rate of feed 0.06 mm/revolution, two passes, roller profile radius 6 mm, diameter 28 mm, hardened layer depth 0.7 mm) and fatigue tested. NU type testers were used and set for symmetrical load cycles (50 c/sec., 10^8 cycles), as well as modified to allow constant feed of active agents (air, 2% oleic acid solution in MS oil, 3% water

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ACCESSION NR: AT4033068

solution of NaCl). In the control series unhardened specimens were used, polished a surface finish of 9. The results indicate that rolling produced denser surface layers of increased hardness, smoothed and rolled out microscopic surface defects, and increased the fatigue strength of the material (see Fig. 1 in the Enclosure), especially in the presence of surface active or aggressive agents. Orig. art. has: 2 graphs and 1 table.

ASSOCIATION: Institut mashinovedeniya i avtomatiki AN UkrSSR, Lvov (Institute of Mechanics and Automation AN UkrSSR).

SUBMITTED: 15Jun62 DATE ACQ: 14May64 ENCL: 02

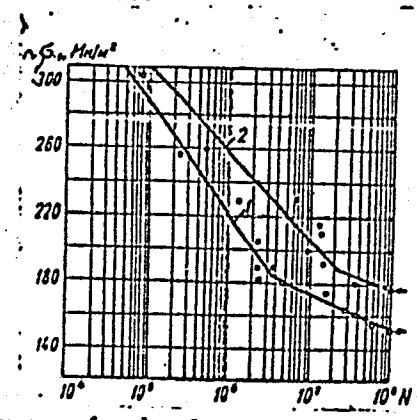
SUB CODE: ML NO REF SOV: 005 OTHER: 000

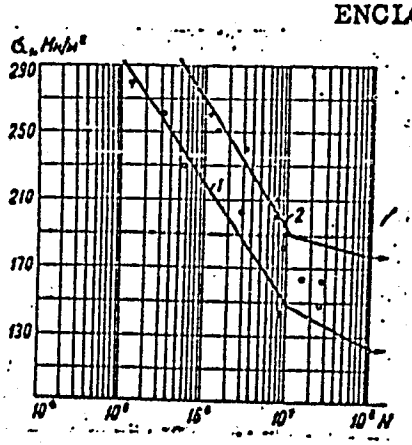
Card 2/4

ACCESSION NR: AT4033068

ENCLOSURE:01

(a)





(b)

Fig. 1 - Fatigue curves for duralumin D-16

a - in laboratory atmosphere b - in MS oil plus 2% oleic acid c - in 3% water solution of NaCl

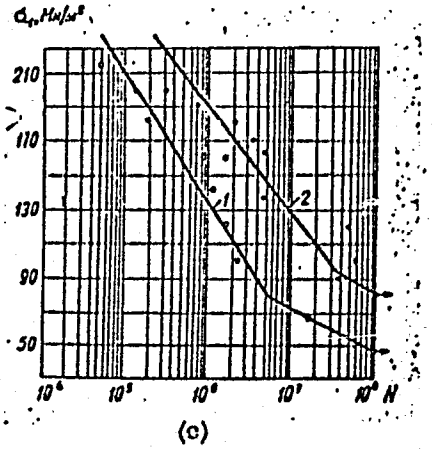
1 - polished specimens

2 - rolled samples

Card 3/4

ACCESSION NR: AT4033068

ENCLOSURE:02



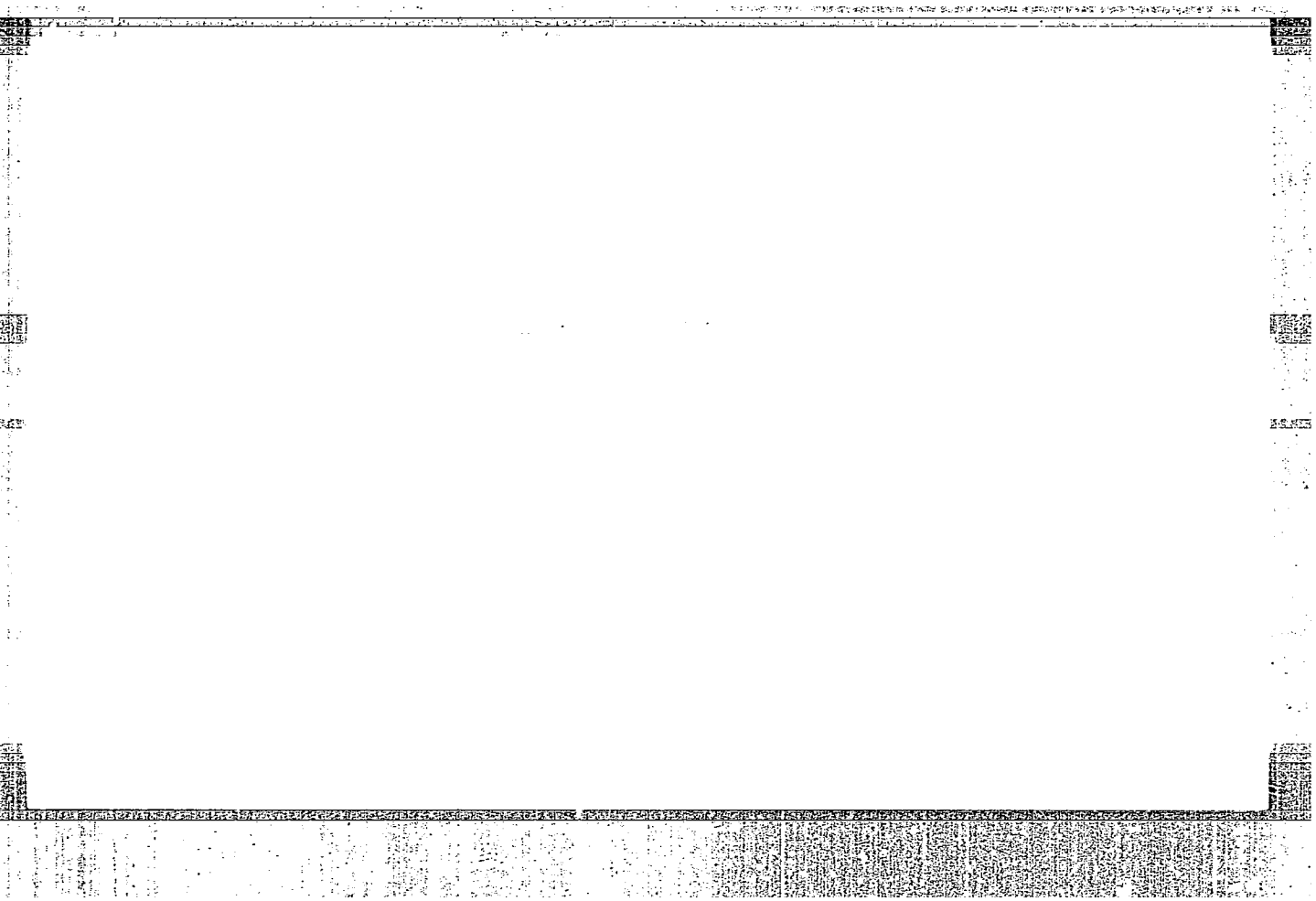
(c)

Fig. 1 (Continued) - Fatigue curves for duralumin D-16

a - in laboratory atmosphere b - in MS oil plus 2% oleic acid c - in 3% water solution of NaCl

1 - polished specimens
2 - rolled samples

Card 4/4



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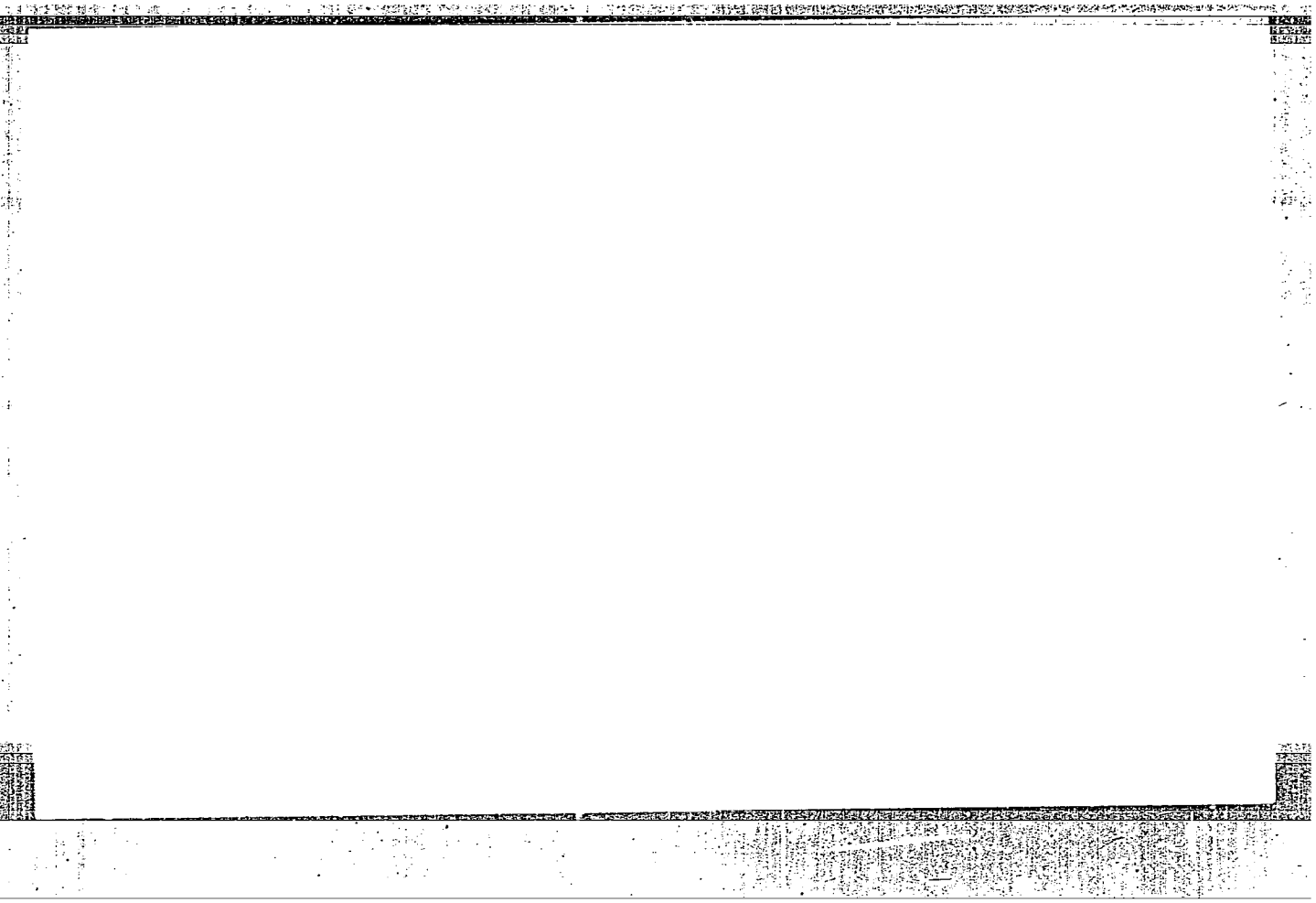

APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R001962030006-4"

MAKSIMOVICH, G.G.; YANCHISHIN, F.P.; DROZD, N.P.

Effect of grain size on lasting strength of the microspecimens of Armco iron. Fiz.-khim. mekh. mat. 1 no.2:193-197 '65.
(MIRA 18:6)

1. Fiziko-mekhanicheskiy institut AN UkrSSR, L'vov.