"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R000514720015-6



discusses the physical properties and production technology of refractory metals and their metal-like compounds with boron, carbon, nitrogen, and silicon. The results of investigations of the absorption and emission spectra of niobium and chromium compounds, processes of joint diffusion of two elements in metals, and data on phenomenological studies of physical properties of metal-like phases are presented. Methods of processing rare metals and refractory compounds in making powders and various articles used in many fields of modern technology are analyzed in detail. Several articles discuss the particular problems of powder metallurgy of ordinary metals and alloys. The papers reflect work performed at the following institutions: Institut metallokeramiki i spetsial'nykh splavov AN USSR (Institute of Metal Ceramics and Special Alloys, Academy of Sciences UkrSSR), Gosudarstvennyy institut prikladnoy khimii (State Institute of Applied Chemistry) Leningrad, Khar'kovskiy politekhnicheskiy institut (Khar'kov Polytechnic Institute), Institut fiziki metallov AN SSSR (Institute of the Physics of Metals, Academy of Sciences USSR), Sverdlovskiy gosudarstvennyy universitet (Sverdlovsk State University), VIAM, TsNIIChERMET, VNIIIMSh, Institut metallurgii AN USSR (Institute of Metallurgy, Academy of Sciences UkrSSR) VNIITS, NIIGRE, MKTS, Gor'kovskiy politekhnicheskiy institut (Gor'kiy Polytechnic Institute), and Moskovskiy elektrolampovyy zavod (Moscow Electric Bulb Plant). References accompany individual articles.



APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R000514720015-6"

"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R000514720015-6



TABLE OF CONTENTS:

Introduction 3

Neshpor, V.S. Physical Properties of Metal-Like Compounds 5

Korsunskiy, M.I., and Ya. Ye. Genkin. Emission Bands $L_{\beta_2}$ and $L_{\gamma_1}$ of Niobium in NbN, NbC and $NbB_2$ 15
Questions and Answers 19
Discussions 20

Nemnonov, S.A., and A.Z. Men'shikov. K-Spectra of Chromium Absorption in Borides, Carbides, Nitrides, and Some Other Compounds 21
Discussions 24

Frantsevich, I.N., and A.N. Pilyankevich. Comparative Brittleness of Refractory Compounds 28
Questions and Answers 36



APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R000514720015-6"

"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R000514720015-6



Arkharov, V.I., and V.N. Konev. Joint Diffusion of Two Elements in Hard Metal 37
Questions and Answers 40
Discussions 40

Samsonov, G.V., and N.N. Zhuravlev. Structure and Properties of Borides of Rare-Earth Metals 43
Questions and answers 51

Kudryavtsev, V.I., and G.V.Sofronov. Precision Determination of Lattice Intervals of Boron Carbide of $B_{2,75}C$--$B_{4,75}C$ Composition According to Roentgenograms Obtained in the Region of Large Scattering Angles ($0 \rightarrow 90°$) 52
Questions and Answers 60
Discussions 61

AVAILABLE: Library of Congress

Card 4/4

JA/dwm/mas
11-18-60

APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R000514720015-6"

"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R000514720015-6

GERMAN VALVE

PHASE I BOOK EXPLOITATION SOV/4502

Akademiya nauk SSSR. Nauchnyy sovet po probleme zharoprochnykh splavov

Issledovaniya po zharoprochnym splavam, tom 6 ( Investigations of Heat-Resistant Alloys, Vol. 6) Moscow, 1960. 319 p. Errata slip inserted. 3,000 copies printed.

Sponsoring Agency: Akademiya nauk SSSR. Institut metallurgii imeni A. A. Baykova. Nauchnyy sovet po probleme zharoprochnykh splavov.

Editorial Board: I. P. Bardin (Deceased) Academician, G. V. Kurdyumov, S. V. Agayev, Corresponding Member, Academy of Sciences USSR (Resp. Ed.), I. A. Oding, I. N. Kaylov, and I. F. Ludin, Candidate of Technical Sciences; Ed. of Publishing House: V. A. Klimov; Tech. Ed.: S. G. Tikhomirova.

PURPOSE: This book is intended for research workers in the field of physics of metals and for metallurgists, particularly those working on heat-resistant alloys.

COVERAGE: This collection of 45 articles deals with various problems in the production of heat-resistant alloys. Special attention is paid to the mechanism of deformation of such metals as aluminum, copper, iron, and nickel. Various defects and failures of metals are analyzed, and means for increasing the heat resistance and plasticity are described. Among the special problems discussed are: electrolytic conductivity of iron-aluminum alloys in the solid state; the mobility of atoms in stainless alloys, depending upon defects of their crystalline structure; the kinetics of change in isolated pores; the irreversible thermal transformation of solid bodies, etc. No personalities are mentioned. References follow each article.


Kashkin, B.S., S.A. Lipskiyev, and S.S. Kharkin. Resistance of the Metal of Gas Turbines Against Vanadium Corrosion When Sulfurous Marsh Gas Used as Fuel 140

Khrusina, E.A., and A.A. Smirnov. Ordering of Alloys With Hexagonal Compact Crystalline Lattice 146

Galitsky, I.S., A.P. Orlov, and I.A. Shvarts. Autoradiographic Detection of Adsorption Heterogeneities of Concentration 158

Borovskiy, N.I., and Ye.Ye. Gorlin. Possibility of Determining the Distribution of Electrons According to the States $d_{3/2}$ and $d_{5/2}$ From the Ratio of the Intensities of L-Series Lines 163

Borovskiy, N.I., and Ye.Ye. Gorlin. Long Lengths of Niobium in Nitride, Nitride, and Carbide of Niobium, and the Character of Bonds of These Compounds 169

Bel'skiy, E.Ye. Kinetics of Changes in Isolated Pores 174

Kolomytsev, P.T. Interaction of Boron With Chromium in Ternary Nickel-Base Alloys 180

Bernyk, G.A., and I.F. Ludin. Some Regularity Patterns in the Formation of σ -Phase in Steel With 18% Cr and 14% Mn 187

Levin, Ye.Ye., and Ye.M. Pivnik. Maximum Structural Stabilization as a Means for Increasing the Durable Heat-Resistance and Plasticity of Alloys 195

Arshavyy, P.M., E.M. Yakovlev, and E.A. Prokofiyeva. Investigation of the Structure and the Phase State of a Diffusion Silicon Coating of Niobium 201

Shakhtal, E.I. Resonance Method for Determining the Internal Friction in Metals 207

Shal'chenko, A.P., N.V. Bolshakov, V.Ye. Metis, M.Ye. Dmitriev, and Ye.V. Vinogradov. Effect of Pressure Treatment on the Endurance and Plasticity of Alloys 211

Kostina, E.E. The Nature of the "White Strip" in Welds of Heat-Resistant Perlitic Steels 215

Gavrilov, V.G., and E.V. Popov. Simultaneous Occurrence of Cold Shortness and "Anticold Shortness" [Condition opposite to cold shortness] 227

Tarnovin, L.A., E.V. Popov, and E.P. Solomon. Effect of the Chromium Content on the Rate of Diffusion and Solubility of Hydrogen in Iron-Chromium Alloys 231

Sevchenko, V.N., G.F. Kobzenko, and Yu.A. Kocherzhinskiy. Investigation of Transformations in Chromium During Heating and Cooling by the Method of Differential Thermal Analysis 236

Sevchenko, V.N., and V.M. Fal. Investigation of the Ternary System Chromium-Nickel-Rubium 240

Gorbunov, S.N., I.Ye. Dobrov, L.M. Kogan, and E.G. Kolesova. Investigation of Defects of Crystalline Structure in Chromium 251




APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R000514720015-6"

"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R000514720015-6

25437 S/137/61/000/006/063/092
A006/A101

15.2240

AUTHORS: Korsunskiy, M.I., Genkin, Ya.Ye.

TITLE: Columbium $L_{\beta 2}$ and $L_{\gamma 1}$ emission bands in NbN, NbC and $NbB_2$

PERIODICAL: Referativnyy zhurnal. Metallurgiya, no. 6, 1961, 1-2, abstract 6Zh5 ("Tr. Seminara po zharostoykim materialam" [In-t metallokeramiki i spets. splavov AN USSR, no. 5] Kiyev, 1960, 15 - 20)

TEXT: Emission L-spectra of Nb were studied in order to reveal changes in the conditions of valent electrons during the formation of compounds. Spectra were obtained on a highly light-intensive Johann X-ray spectrograph with a curved quartz crystal (d ≈ 4,246.02 XE) over a 1,000 mm radius. From the investigated emission lines of the L-spectrum, particularly strong changes in the intensity and shape of $L_{\beta 2}$ and $L_{\gamma 1}$ bands were observed. These bands represent in the compounds only a portion of the corresponding pure Nb bands. This phenomenon of "cutting-off" a portion of corresponding bands is explained by the escape of a certain portion of electrons in the compounds mentioned from the d-state of Nb. It can be

Card 1/2

APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R000514720015-6"

"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R000514720015-6

21437 S/137/61/000/006/063/092
A006/A101

Columbium ...

asserted that qualitatively the escape from the d-state of Nb in the $NbB_2$ compound is greater than in NbN and NbC compounds.

I. Dekhtyar

[Abstracter's note: Complete translation]

Card 2/2

APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R000514720015-6"

"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R000514720015-6

29409

18.1152
5.5310

S/081/61/000/017/002/166
B102/B138

AUTHORS: Korsunskiy, M. I., Genkin, Ya. Ye.

TITLE: X-ray L spectra of niobium in the diboride, nitride and carbide, and the nature of the bond in these compounds

PERIODICAL: Referativnyy zhurnal. Khimiya, no. 17, 1961, 11 - 12, abstract 17E65 (Sb. "Issled. po zharoprochn. splavam", M., AN SSSR, v. 6, 1960, 169 - 173)

TEXT: X-ray fluorescence L spectra of metallic Nb and of NbC, NbN and $NbB_2$ (lines $L_{\alpha_1}$, $L_{\alpha_2}$, $L_{\beta_1}$, $L_{\gamma_1}$, $L_{\beta_2}$, $L_{\beta_3}$ and $L_{\beta_4}$) have been obtained. When passing from metallic Nb to compounds, the intensity and shape of the lines $L_{\alpha_1}$, $L_{\beta_1}$, $L_{\beta_3}$, $L_{\beta_4}$ change very little, while in the $L_{\beta_2}$ and $L_{\gamma_1}$ lines the change is considerable. The first of these lines, which is of normal shape in metallic Nb, becomes a broad line with two peaks in $NbB_2$; the change consists in the "shearing" of part of the band. The same

Card 1/2

APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R000514720015-6"

"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R000514720015-6



thing occurs in the nitride and carbide. The $L_{\gamma_1}$ line changes in the same way. Of the satellites of the $L_{\alpha_1}$ line ($Nb^{2+}$ radiation) only the satellite $L_{\alpha_3}$ undergoes any substantial change ($L_{III} - M_V$ transition), the others remain unchanged. The changes observed are attributed to the withdrawal of part of the d-electrons, which, in the author's opinion, form the chemical bonds. The similar nature of the changes in all the compounds indicates that in all cases the bonds are formed at the expense of the same electrons. A comparison of the $L_{\beta_2}$ lines of $NbB_2$, NbN, and NbC shows that the "defect" of this band gradually decreases in this order, which corresponds to the decrease in the number of free places in the 2p shell of the atoms with which the bond is formed. [Abstracter's note: Complete translation.]



APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R000514720015-6"

"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R000514720015-6

80894

S/048/60/024/04/04/009
B006/B017

24.6300

AUTHORS: Genkin, Ya. Ye., Rumyantsev, I. A.

TITLE: Consideration of Apparatus Distortions and the Widths of the Inner Levels of Dispersion Type in Emission Spectra

PERIODICAL: Izvestiya Akademii nauk SSSR. Seriya fizicheskaya, 1960, Vol. 24, No. 4, pp. 384-392

TEXT: The present article is a reproduction of a lecture delivered at the 4th All-Union Conference on X-Ray Spectroscopy (Rostov-na-Donu, June 29 - July 6, 1959). The interaction between quanta and a device brings about a distortion of spectral lines. The experimentally determined shape of the spectrum F(x) is related to the actual shape of the spectrum f(x) by the equation $F(x) = \int_{-\infty}^{+\infty} f(z)\,\varphi(x-z)\,dz$, where $\varphi(x-z)$ is the distortion function. In a spectrograph with a curved crystal, distortion has almost the form of dispersion. By means of the normalization

Card 1/4

APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R000514720015-6"

"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R000514720015-6

80894

Consideration of Apparatus Distortions and the Widths of the Inner Levels of Dispersion Type in Emission Spectra

S/048/60/024/04/04/009
B006/B017

$\int_{-\infty}^{+\infty} \psi(x-z)dz = 1$ the following integral equation is then obtained:

$F(x) = \frac{1}{\pi\beta} \int_{-\infty}^{+\infty} \frac{f(z)dz}{1 + \left(\frac{x-z}{\beta}\right)^2}$ (4) ($\beta$ - distortion parameter). The present paper deals with its solution. The authors give an approximation method similar to those published in previous papers. It is based on the approximation of the second power of the function $f(x)$ by means of polynomials. First, the method of columns is discussed. Integration of equation (4) leads to $F_k = \sum_{i=1}^{n} C_{ki} f_i$, where $f_i$ and $F_k$ are the values of the true and the distorted functions, with

Card 2/4

APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R000514720015-6"

"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R000514720015-6

80894

Consideration of Apparatus Distortions and the Widths of the Inner Levels of Dispersion Type in Emission Spectra

S/048/60/024/04/04/009
B006/B017

$c_{ki} = \frac{1}{\pi}\left(\text{arc tan}\,\frac{k-i+1/2}{\beta} - \text{arc tan}\,\frac{k-i-1/2}{\beta}\right)$. The solution of the above system makes it possible to obtain the inverse matrix $f_i = \sum_{k=1}^{n} p_{ik}F_k$ by means of which the actual shape of the spectrum can be calculated from the one found experimentally. The approximation of the actual curve by means of finitely wide columns, however, is rather inexact (Fig. 1). In the following, the parabola method is discussed. It is based on the principle that $f(x)$ is expanded into a series according to powers of $(x-i)$, and that the first three terms of this expansion are used. Again, $F_k = \sum_{i=1}^{n} a_{ki}f_i$, and the very extensive formulas for $a_{ki}$ are written down explicitly and the matrices $\|a_{ki}\|$ and $\|b_{ik}\|$ $\left(\text{from } f_i = \sum_{k=1}^{n} b_{ik}F_k\right)$ are tabulated (Tables 1 and 2). In the following, a possibility of improving this approximation is discussed (the occurring matrices are again

Card 3/4

APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R000514720015-6"

"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R000514720015-6

80894

Consideration of Apparatus Distortions and the Widths of the Inner Levels of Dispersion Type in Emission Spectra

S/048/60/024/04/04/009
B006/B017

tabulated). By using the new solution $f_i = \sum_{k=-1}^{22} b'_{ik} F'_k$ the approximation is numerically computed for two practical examples, and the two curves F(x) and f(x) are compared (Figs. 3, 4). In conclusion, the authors thank M. I. Korsunskiy for his interest and advice. There are 4 figures, 4 tables, and 6 Soviet references.

ASSOCIATION: Khar'kovskiy politekhnicheskiy institut im. V. I. Lenina (Khar'kov Polytechnic Institute imeni V. I. Lenin)

Card 4/4

APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R000514720015-6"

"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R000514720015-6

S/032/60/026/04/37/046
B010/B006

AUTHOR: Genkin, Ya.Ye.

TITLE: Vacuum Shutter for the Plate Holder of the X-Ray Tube-spectrograph

PERIODICAL: Zavodskaya laboratoriya, 1960, Vol. 26, No. 4, p. 500

TEXT: Plate holders, the apertures of which are covered with a thin film, applied in vacuum spectrographs, have the disadvantage of strongly weakening soft X-rays. Furthermore, unevenness of film thickness makes it impossible to obtain reliable spectrograms with soft X-rays. A vacuum shutter design without a film, for use in plate holders, is described (Figs. 1 and 2). The mode of operation of the shutter consists in setting the plate holder ready for exposure, or shutting it, by means of two pistons and a cylinder connected with the shutter chamber. The motion of the pistons is caused by the difference in pressure between the cylinder and the spectrograph. There are 2 figures.

ASSOCIATION: Khar'kovskiy politekhnicheskiy institut (Khar'kov Polytechnic Institute)

Card 1/1

APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R000514720015-6"

"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R000514720015-6

KHOTKEVICH, V.I.; PERVAKOV, V.A.; GENKIN, Ya.Ye.

Low-temperature press. Prib.i tekh.eksp. 6 no.5:201-202 S-O '61. (MIRA 14:10)

1. Fiziko-tekhnicheskiy institut AN USSR i Khar'kovskiy gosudarstvennyy universitet.
(Low-temperature research--Equipment and supplies)

APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R000514720015-6"

"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R000514720015-6

S/048/61/025/008/009/009
B104/B202

AUTHORS: Korsunskiy, M. I., Genkin, Ya. Ye.

TITLE: Device for correcting the shape of emission spectra

PERIODICAL: Akademiya nauk SSSR. Izvestiya. Seriya fizicheskaya, v. 25, no. 8, 1961, 1013-1016

TEXT: The present paper was the subject of a lecture delivered at the 5th Conference on X-ray Spectroscopy at Khar'kov, January 30 to February 4, 1961. The authors studied the scheme shown in Fig. 2 for taking account of the distortions of the emission spectra caused by the apparatus and the width of the inner levels. By means of these scheme the authors determine the rectified ordinate $f_i$ of the spectrum using the relation $f_i = \sum_{k=1}^{n} b_{ik}F_k$ $(i = 1,2,\ldots,s)$, where $\|b_{ik}\|$ is a certain transformation matrix and $F_k$ the ordinate of the experimentally determined spectrum. The elements of the matrix $\|b_{ik}\|$ are produced in the form of resistors $r_{ik}$ consisting of manganin wire. The device consists of n

Card 1/7

APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R000514720015-6"

"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R000514720015-6



cells. Each k-th cell contains s resistors corresponding to the elements of the k-th column of the matrix and which are connected in series. Furthermore, each cell contains a d-c source, a tuning potentiometer, a load resistor, and a resistor having the same resistance as the instrument measuring the amperage in the cells. With the aid of the tuning potentiometer an amperage is tuned in each cell which corresponds to the value of the ordinate at the k-th point. Thus, a voltage drop $V_{ik} = r_{ik} j_k = \alpha b_{ik} F_k$ occurs in each cell where $\alpha$ is a constant of the instrument. Hence, the sum of the voltage drops in all i resistors of the cells is proportional to the value of the ordinate at the i-th point of the rectified curve:

$$V_i = \sum_{k=1}^{n} v_{ik} = \alpha f_i.$$

Fig. 2 shows the scheme of this device. As can be seen, each matrix element is connected with an immobile contact panel which sums the voltage drops at the matrix elements 11, 12, 13, ...., 1,23. I.e., the voltage drop proportional to $f_1$ is calculated. This voltage at the ends of the resistors 11 and 1,23 is applied to the mobile contact of the compensating



APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R000514720015-6"

"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R000514720015-6



potentiometer and its central point. If the voltage drop at the potentiometer between the central point and the mobile contact is not equal to that at the ends of the elements 11 and 1,23 the galvanometer needle is deflected to one side or the other. By means of a motor the mobile contact of the potentiometer is adjusted such that the galvanometer needle again indicates zero. In this case the voltage drop at the potentiometer is proportional to $f_1$. The position of the mobile contact can be exactly read on a scale. After the determination of $f_1$ the mobile contact panel is adjusted to position 2, in which the summation of the voltage drops at the resistors 21, 22, 23, ...., 2.23 is made. In this case the voltage at the ends of the resistors 21 and 2,23 is applied to the compensating potentiometer. This voltage is compensated according to the above scheme, with the value of the rectified coordinate being read at point 2 of the scale. A scheme representing a (11,23) matrix and serving for the direct correction of spectra from the microphotographs without transformation with respect to intensity was tested. Fig. 3 shows a comparison of a rectified curve with one calculated directly. The authors thank L. I. Lukashenko for valuable help and V. F. Balditsyn and



APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R000514720015-6"

"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R000514720015-6



I. A. Belenko for the production of the device described here. There are 3 figures and 2 Soviet-bloc references.

ASSOCIATION: Khar'kovskiy politekhnicheskiy institut im. V. I. Lenina (Khar'kov Polytechnic Institute imeni V. I. Lenin)



APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R000514720015-6"

"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R000514720015-6

GENKIN, Ya.Ye.; RUMYANTSEVA, I.A.

Comparison of two methods for correcting experimental curves (successive approximations method and the method of matrices). Izv. AN SSSR. Ser. fiz. 25 no.8:1017-1027 Ag '61. (MIRA 14:8)

1. Khar'kovskiy politekhnicheskiy institut im. V.I. Lenina. (X-ray spectroscopy)

APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R000514720015-6"

"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R000514720015-6

KORSUNSKIY, M.I.; GENKIN, Ya.Ye.

Corrected I $\beta_2$ -emission band in pure niobium and its compounds. Izv. AN SSSR. Ser. fiz. 25 no.8:1028-1030 Ag '61. (MIRA 14:8)

(Niobium--Spectra)
(Niobium compounds--Spectra)

APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R000514720015-6"

"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R000514720015-6

KORSUNSKIY, M.I.; GENKIN, Ya.Ye.

Establishing the Fermi boundary from X-ray spectral emission bands. Izv. AN SSSR. Ser. fiz. 25 no.8:1031-1037 Ag '61. (MIRA 14:8)

1. Kafedra obshchey i eksperimental'noy fiziki Khar'kovskogo politekhnicheskogo instituta im. V.I. Lenina.
(X-ray spectroscopy)

APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R000514720015-6"

"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R000514720015-6

S/849/62/000/000/005/016
A006/A101

AUTHORS: Korsunskiy, M. I., Genkin, Ya. Ye.

TITLE: L-series of niobium in different compounds

SOURCE: Vysokotemperaturnyye metallokeramicheskiye materialy. Inst. metallokeram. i spets. spl. AN Ukr.SSR. Kiev, Izd-vo AN Ukr.SSR, 1962, 36 - 39

TEXT: Information is presented on preliminary results obtained by the investigation of L-spectra of niobium in compounds of Nb with nitrogen (6.32; 6.8; 8.1; 10.2; 11.9; 12.6% N), silicon, and hydrogen. These investigations continue studies presented by L. Pauling at a seminar in 1960, dealing with L-spectra of niobium in its nitride, carbide and diboride. The present studies are being conducted by the department of general and experimental physics in cooperation with the Institute of Sinters and Special Alloys of AS UkrSSR. The $L_{\beta_2}$ line was selected as a comparison line. The exposure was selected in such a manner that the Nb $L\beta$ lines in the investigated compound and in pure Nb had the same intensity. $L_{\beta_2}$ and $L_{\gamma_2}$ emission bands undergo strong changes in shape during

Card 1/2

APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R000514720015-6"

"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R000514720015-6



the transition to Nb compounds with nitrogen and to various concentrates. These changes indicate a considerable difference in the nature of bond of the substances investigated. The spectra obtained can be divided into two groups. Group one includes spectra of Nb in combination with nitrogen at 6.32, 6.8 and 12.6% N concentration; spectra of Nb in combination with $Nb_5Si_3$ and spectra of previously investigated compounds NbN, $NbB_2$ and NbC. In these spectra the $L\beta_2$ band is not displaced and its shape changes in that the outline of the compound band remains within the contour of the $L\beta_2$ band of pure Nb. The atomic charge does not change substantially. The second group includes emission spectra of substances whose $L\beta_2$ bands are displaced and do not remain within the contour of $L\beta_2$ bands of pure Nb, i.e. the band occupied by valent electrons is displaced toward the side of lesser energies, and expands. Such spectra are shown by Nb-nitrides with weight concentrations of 8.1; 10.2; 11.9% N and a Nb-hydride specimen. In these compounds a partial transition of electrons takes place from hydrogen to Nb (in Nb hydrides) and from nitrogen to Nb (in compounds with nitrogen). There are 2 figures and 1 table.



APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R000514720015-6"

"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R000514720015-6

S/181/62/004/010/060/063
B102/B104

AUTHORS: Korsunskiy, M. I., Genkin, Ya. Ye., and Lukashenko, L. I.

TITLE: The $L_{III}$ and $L_{II}$ absorption edges of niobium

PERIODICAL: Fizika tverdogo tela, v. 4, no. 10, 1962, 2986 - 2987

TEXT: The wavelengths of the $L_{II}$ and $L_{III}$ edges of the emission spectrum of metallic niobium, $\lambda_{L_{III}} = (5223.5 \pm 0.2)$ X and $\lambda_{L_{II}} = (5022.9 \pm 0.3)$ X, should agree with the corresponding absorption edges. Since no data are available for the $L_{II}$ absorption edge, and since for $L_{III}$ the only published value is $\lambda_L = 5212.1$ X which disagrees with the corresponding value from the emission spectra, the absorption edge wavelengths were measured again. The authors used an X-ray spectrograph with a quartz analyzer ($d_{\infty} = 3336.00$ X, R = 700 mm). The results were: $\lambda_{L_{III}} = (5223.6 \pm 0.4)$ X and $\lambda_{L_{II}} = (5022.8 \pm 0.5)$ X.

Card 1/2

APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R000514720015-6"

"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R000514720015-6

The $L_{III}$ and $L_{II}$ absorption... S/181/62/004/010/060/063
B102/B104

ASSOCIATION: Khar'kovskiy politekhnicheskiy institut im. V. I. Lenina (Khar'kov Polytechnic Institute imeni V. I. Lenin)

SUBMITTED: June 18, 1962

Card 2/2

APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R000514720015-6"

"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R000514720015-6

S/020/62/142/006/008/019
B104/B108

24.7700 (1043,1035,1055,1385)

AUTHORS: Korsunskiy, M. I., and Genkin, Ya. Ye.

TITLE: The interpretation of the $L_{\beta 2}$ emission band of niobium

PERIODICAL: Akademiya nauk SSSR. Doklady, v. 142, no. 6, 1962, 1276-1277

TEXT: In a previous work the authors had corrected the $L_{\beta 2}$ emission band of niobium (Izv. AN SSSR, ser. fiz., 25 (1961)). The clear cutoff in the corrected band corresponds to the Fermi energy limit (Fig. 1). If all five electrons of the outer shell were collectivized in solid niobium, the width of the emission band would be 15.6 ev. The width of the corrected band, however, is only 12.1 ev and it is assumed that only some of the five electrons are collectivized. It has been shown by T. G. Berlincourt (see below) that niobium has a positive Hall coefficient, p-type conductivity prevails. This is in agreement with the opinion stated above. The short-wave part of the emission band is attributed to the collectivized electrons, while the long-wave part is attributed to the non-generalized electrons. In solid niobium, 1.1 to 1.3 electrons are collectivized in

Card 1/2

APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R000514720015-6"

"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R000514720015-6



each atom, while the remaining electrons of the outer shell take part in the formation of strong covalent bounds. Reference is made to R. L. Barinskiy and E. Ye. Vaynshteyn (Izv. AN SSSR, ser. fiz., 21, 1387 (1957)). There are 1 figure and 6 references: 5 Soviet and 1 non-Soviet. The reference to the English-language publication reads as follows: T. G. Berlincourt, Phys. Rev., 114, 969 (1959).

ASSOCIATION: Khar'kovskiy politekhnicheskiy institut im. V. I. Lenina (Khar'kov Polytechnic Institute imeni V. I. Lenin)

PRESENTED: May 20, 1961, by G. V. Kurdyumov, Academician

SUBMITTED: May 20, 1961

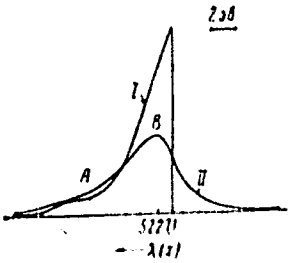


Fig. 1. Measured and corrected $L_{\beta 2}$ band of niobium.
Legend: (I) corrected band; (II) band determined by experiment; (A) long-wave part; (B) short-wave limit.

Card 2/2

APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R000514720015-6"

"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R000514720015-6

KORSUNSKIY, M.I.; GENKIN, Ya.Ye.; LUKASHENKO, L.I.

$L_{III}$ and $L_{II}$ absorption edges in niobium. Fiz.tver.tela 4 no.10:2986-2987 O '62. (MIRA 15:12)

1. Khar'kovskiy politekhnicheskiy institut imeni Lenina.
(Niobium—Spectra)

APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R000514720015-6"

"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R000514720015-6

KORSUNSKIY, M.I.; GENKIN, Ya.Ye.

Change in the character of the bonding forces in the system niobium - nitrogen. Izv. AN Kazakh. SSR. Ser. fiz.-mat. nauk no. 2:70-75 '63. (MIRA 17:6)

APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R000514720015-6"

"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R000514720015-6

S/048/63/027/003/011/025
B117/B234

AUTHORS: Korsunskiy, M. I., and Genkin, Ya. Ye.

TITLE: X-ray spectra of niobium in the α-phase range of the niobium-oxygen system

PERIODICAL: Akademiya nauk SSSR. Izvestiya. Seriya fizicheskaya, v. 27, no. 3, 1963, 362-363

TEXT: Fluorescence spectra were taken of niobium in compounds having different concentrations of nitrogen (0.27, 0.45, 0.51% by weight) and the emission bands of $L\beta_2$ in the α-phase range were examined. It was shown that the short-wave part of the band directly adjoining the Fermi boundary remains practically unchanged, pointing to the conclusion that the number of collective electrons remains constant or scarcely alters. The spectral intensity of the long-wave maximum increases. Its width slightly decreases, indicating a longer life of the bound valency electrons, but the increased spectral intensity can be ascribed only to a change in the symmetry of the ψ function of the bound valency electrons; i.e. the symmetry of their wave

Card 1/2

APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R000514720015-6"

"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R000514720015-6



function approaches 4d symmetry as the nitrogen concentration increases. This may be so pronounced that the mechanical properties of the phase in question are appreciably influenced by the qualitative change of the covalent bond. There is 1 figure.

ASSOCIATION: Khar'kovskiy politekhnicheskiy institut im. V. I. Lenina (Khar'kov Polytechnic Institute imeni V. I. Lenin)



APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R000514720015-6"

"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R000514720015-6

L 9868-63 EWA(h)/EWT(1)/BDS--AFFTC/ASD/ESD-3/AFWL--WW/IJP(C)
ACCESSION NR: AP3001363 S/0048/63/027/006/0829/0830

60
59

AUTHOR: Korsunskiy, M. I.; Genkin, Ya. Ye.

TITLE: Experimental verification of methods of correcting x-ray spectra [Report of the Sixth Conference on X-Ray Spectroscopy held in Odessa from 2 to 16 July 1962]

SOURCE: AN SSSR. Izv. Seriya fizicheskaya, v. 27, no. 6, 1963, 829-830

TOPIC TAGS: correction of x-ray spectra, x-ray lines of niobium

ABSTRACT: Recently there has been great interest in methods for correcting apparatus x-ray spectra for the purpose of bringing out fine structure details. But so far there have been no experimental checks of the validity of the various correction methods. The present paper gives the results of an experimental attempt to check the "quality" of such correction in the specific case of the L beta sub 2 emission band of solid niobium. The results of correction of this band in the spectra of solid niobium and the niobium-nitrogen system are given

Card 1/2

APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R000514720015-6"

"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R000514720015-6

L 9868-63
ACCESSION NR: AP3001363

0

by M. I. Korsunskiy and Ya. Ye. Genkin (Izv. AN SSSR, Ser. fiz., 25, 1028, 1961). The correction procedure included determination of the location of the short wavelength edge of the emission band, determination of the dispersive distortion parameter and use of special direct and inverse matrices "with abrupt drop". The value of the distrotion parameter beta arrived at was 1.33 eV. Since in practice one can only reduce the distortion parameter, in the present work the spectrum was re-recorded using a quartz crystal with constant d = 3336.00 X, which afforded a two-fold increase in resolution. (The constant of the previous crystal was d = 4246.02 X, and corrected by the same matrix procedure.) The new corrected curve agrees closely with the old corrected curve. The new value of beta is 1.20 eV. The values of the Fermi level deduced from the spectra obtained by means of the two crystals agree within 0.15 eV. Thus, the validity of the correction procedure proposed by the authors earlier is substantiated; the procedure, however, is not applicable to spectral intensity distribution curves in which there are significant fluctuations within intervals smaller than 0.7 the distortion parameter. Orig. art. has: 2 figures.

Card 2/3

APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R000514720015-6"

"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R000514720015-6

S/0048/64/028/005/0832/0833

ACCESSION NR: AP4038773

AUTHOR: Korsunskiy, M.I.; Genkin, Ya.Ye.

TITLE: X-ray emission bands and the magnetic properties of niobium /Report, Seventh Conference on X-Ray Spectroscopy held in Yerevan 23 Sep to 1 Oct 1963/

SOURCE: AN SSSR. Izvestiya. Seriya fizicheskaya, v.28, no.5, 1964, 832-833

TOPIC TAGS: x-ray spectrum, x-ray emission, magnetic susceptibility, niobium, covalent bond

ABSTRACT: The contribution of the collectivized electrons in metallic niobium to its magnetic susceptibility is calculated. The calculation is based on the conclusion of M.I.Korsunskiy, Ya.Ye.Genkin and T.S.Verkhoglyudova (Dokl.AN SSSR,142,1276, 1962; Poroshkovaya metallurgiya,No.4(10),35,1962), drawn from the relative intensities of the short wavelength portions of the $L\beta_2$ and $L\gamma$ emission bands and other lines of the fluorescence L-spectra of niobium, that the statistical weight of the d-states in the wave functions describing the collectivized electrons in metallic niobium is nearly unity and the weight of the $d_{5/2}$ state is twice that of the $d_{3/2}$

Card 1/3

APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R000514720015-6"

"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R000514720015-6

ACCESSION NR: AP4038773

state. This conclusion makes it possible to calculate the magnetic moment per collectivized electron. The effective number of collectivized electrons contributing to the magnetization is calculated in the almost free electron approximation, and the effect of the lattice on the motion of the electrons is taken into account with the aid of the result of A.G.Thorsen and T.C.Berlincourt (Phys.Rev.Letters,7,224, 1961) that the effective mass of the electrons in niobium is approximately one electron mass. The value $(1.6 \pm 0.3) \times 10^{-6}$ is obtained for the susceptibility. From the near agreement of this calculated value with the experimental value given by C.J.Kriessmann (Revs.Mod.Phys.25,122,1953), it is concluded that the magnetic susceptibility of niobium is due mainly to the collectivized electrons, and that the conclusions of Korsunskiy and Genkin (loc.cit.) concerning the states of the valence electrons in niobium not only make it possible to determine the nature of the conduction and the sign of the Hall coefficient in niobium from x-ray data, but also to determine the magnetic susceptibility. The small temperature dependence of the susceptibility reported by Kiessmann (loc.cit.) is ascribed to the electrons participating in the covalent bonds. Orig.art.has: 5 formulas.

Card 2/3

APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R000514720015-6"

"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R000514720015-6

ACCESSION NR: AP4038773

ASSOCIATION: Institut yadernoy fiziki Akademii nauk KazSSR (Institute of Nuclear Physics, Academy of Sciences, KazSSR)

SUBMITTED: 00 DATE ACQ: 12Jun64 ENCL: 00

SUB CODE: OP,EM NR REF SOV: 005 OTHER: 003

Card 3/3

APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R000514720015-6"

"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R000514720015-6

KORSUNSKIY, M.I.; GENKIN, Ya.Ye.

X-ray emission spectra of nitrogen and zirconium [illegible] of interatomic bonding of these elements. Izv. AN [illegible] Ser. 1 no.10:1701-1709 O '65.

(MIRA 18:12)

1. Institut yadernoy fiziki AN Kaz.SSR, Alma-Ata. Submitted July 5, 1965.

APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R000514720015-6"

"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R000514720015-6

GENKIN, YE.

USSR/Communications - Training
Training

Jul 1947

"On-the-Job Training of Highly Qualified Technicians," Ye. Genkin, Section of the Director of the All-Union Correspondence Course for Communications, 1 p

"Vestnik Svyazi - Pochta" No 7 (88)

At the present time, there are some 18,000 practicing technicians in the Soviet Union. This number includes all those technicians who are qualified as technicians, but do not have any particular specialty. With new apparatus and procedure coming in, it is important to raise the technical level of these technicians, so that they are able to exploit these new installations

30T12

LC

USSR/Communications - Training (Contd)

Jul 1947

efficiently. This article describes the "tekhnikums" system of instructing present technicians in particular specialties.

30T12

LC

APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R000514720015-6"

"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R000514720015-6

1. GENKIN, YE. M.

2. USSR (600)

4. Concrete - Transportation

7. Hopper for transporting concrete.
Mekh. trud. rab. 6. No. 9. 1952.

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

APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R000514720015-6"

"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R000514720015-6

GENKIN, Ye. M.

ANDON'YEV, V.L.; BAUM, V.A.; BAUMGARTEN, N.K.; BEREZIN, V.D.; BIRYUKOV, I.K.; BIRYUKOV, S.M.; BLOKHIN, S.I.; BOROVOY, G.A.; BULEV, M.Z.; BURAKOV, N.A.; VERTSAYZER, B.A.; VOVK, G.M.; VORMAN, B.A.; VOSHCHININ, A.P.; GALAKTIONOV, V.D., kand. tekhn. nauk; GENKIN, Ye.M.; GIL'DENBLAT, Ya.D., kand. tekhn. nauk; GINZBURG, M.M.; GLEBOV, P.S.; GODES, E.G.; GORBACHEV, V.N.; GRZHIB, B.V.; GRIKULOV, L.F., kand. s.-kh. nauk; GRODZENSKAYA, I.Ya.; DANILOV, A.G.; DMITRIYEV, I.G.; DMITRIYENKO, Yu.D.; DOBROKHOTOV, D.D.; DUBININ, L.G.; DUNDUKOV, M.D.; ZHOLIK, A.P.; ZENKEVICH, D.K.; ZIMAREV, Ye.V.; ZIMASKOV, S.V.; ZUBRIK, K.M.; KARANOV, I.F.; KNYAZEV, S.N.; KOLEGAYEV, N.M.; KOMAREVSKIY, V.T.; KOSENKO, V.P.; KORENISTOV, D.V.; KOSTROV, I.N.; KOTLYARSKIY, D.M.; KRIVSKIY, M.N.; KUZNETSOV, A.Ya.; LAGAR'KOV, N.I.; LGALOV, V.G.; LIKHACHEV, V.P.; LOGUNOV, P.I.; MATSKEVICH, K.F.; MEL'NICHENKO, K.I.; MONDELEVICH, I.R.; MIKHAYLOV, A.V., kand. tekhn. nauk; MUSIYENA, R.N.; NATANSON, A.V.; NIKITIN, M.V.; OVES, I.S.; OGUL'NIK, G.R.; OSIPOV, A.D.; OSMER, N.A.; PETROV, V.I.; PERYSHKIN, G.A., prof.; P'YANKOVA, Ye.V.; RAPOPORT, Ya.D.; REMEZOV, N.P.; ROZANOV, M.P., kand. biol. nauk; ROCHEGOV, A.G.; RUBINCHIK, A.M.; RYBCHEVSKIY, V.S.; SADCHIKOV, A.V.; SEMENTSOV, V.A.; SIDENKO, P.M.; SINYAVSKAYA, V.T.; SITAROVA, M.N.; SOSNOVIKOV, K.S.; STAVITSKIY, Ye.A.; STOLYAROV, B.P. [deceased]; SUDZILOVSKIY, A.O.; SYRTSOVA, Ye.D., kand. tekhn. nauk; FILIPPSKIY, V.P.; KHALTURIN, A.D.; TSISHEVSKIY, P.M.; CHERKASOV, M.I.; CHERNYSHEV, A.A.; CHUSOVITIN, N.A.; SHESTOPAL, A.O.; SHEKHTER, P.A.; SHISHKO, G.A.; SHCHERBINA, I.N.; ENGEL', F.F.; YAKOBSON, A.G.; YAKUBOV, P.A., ARKHANGEL'SKIY,

(Continued on next card)

APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R000514720015-6"

"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R000514720015-6

ANDON'YEV, V.L.... (continued) Card 2.
Ye.A., retsenzent, red.; AKHUTIN, A.N., retsenzent, red.; BALASHOV, Yu.S., retsenzent, red.; BARABANOV, V.A., retsenzent, red.; BATUNER, P.D., retsenzent, red.; BORODIN, P.V., kand. tekhn. nauk, retsenzent, red.; VALUTSKIY, I.I., kand. tekhn. nauk, retsenzent, red.; GRIGOR'YEV, V.M., kand. tekhn. nauk, retsenzent, red.; GUBIN, M.F., retsenzent, red.; GUDAYEV, I.N., retsenzent, red.; YERMOLOV, A.I., kand. tekhn. nauk, retsenzent, red.; KARAULOV, B.F., retsenzent, red.; KRITSKIY, S.N., doktor tekhn. nauk, retsenzent, red.; LIKIN, V.V., retsenzent, red.; LUKIN, V.V., retsenzent, red.; LUSKIN, Z.D., retsenzent, red.; MATRIROSOV, A.Kh., retsenzent, red.; MENDELEYEV, D.M., retsenzent, red.; MENKEL', M.F., doktor tekhn. nauk, retsenzent, red.; OBREZKOV, S.S., retsenzent, red.; PETRASHEN', P.N., retsenzent, red.; POLYAKOV, L.M., retsenzent, red.; RUMYANTSEV, A.M., retsenzent, red.; RYABCHIKOV, Ye.I., retsenzent, red.; STASENKOV, N.G., retsenzent, red.; TAKANAYEV, P.F., retsenzent, red.; TARANOVSKIY, S.V., prof., doktor tekhn. nauk, retsenzent, red.; TIZDEL', R.R., retsenzent, red.; FEDOROV, Ye.M., retsenzent, red.; SHEVYAKOV, M.N., retsenzent, red.; SHMAKOV, M.I., retsenzent, red.; ZHUK, S.Ya. [deceased], akademik, glavnyy red.; RUSSO, G.A., kand. tekhn. nauk, red.; FILIMONOV, N.A., red.; VOLKOV, L.N., red.; GRISHIN, M.M., red.; ZHURIN, V.D., prof., doktor tekhn. nauk, red.; KOSTROV, I.N., red.; LIKHACHEV, V.P., red.; MEDVEDEV, V.M., kand. tekhn. nauk, red.; MIKHAYLOV, A.V., kand. tekhn. nauk, red.; PETROV, G.D., red.; RAZIN, N.V., red.; SOBOLEV, V.P., red.; FERINGER, B.P., red.; FREYGOFER,
(Continued on next card)

APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R000514720015-6"

"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R000514720015-6

ANDON'YEV, V.L.... (continued) Card 3.
Ye.F., red.; TSYPLAKOV, V.D. [deceased], red.; KORABLINOV, P.N., tekhn. red.; GENKIN, Ye.M., tekhn. red.; KACHEROVSKIY, N.V., tekhn. red.

[Volga-Don; technical account of the construction of the V.I. Lenin Volga-Don Navigation Canal, the TSimlyansk Hydroelectric Center, and irrigation systems] Volgo-Don; tekhnicheskii otchet o stroitel'-stve Volgo-Donskogo sudokhodnogo kanala imeni V.I. Lenina, TSimlianskogo gidrouzla i orositel'nykh sooruzhenii, 1949-1952; v piati tomakh. Moskva, Gos. energ. izd-vo. Vol.1. [General structural descriptions] Obshchee opisanie sooruzhenii. Glav. red. S.IA. Zhuk. Red. toma M.M. Grishin. 1957. 319 p. Vol.2. [Organization of construction. Specialized operations in hydraulic engineering] Organizatsiia stroitel'stva. Spetsial'nye gidrotekhnicheskie raboty.

(Continued on next card)

APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R000514720015-6"

"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R000514720015-6

ANDON'YEV, V.L.... (continued) Card 4.
Glav. red. S.IA. Zhuk. Red. tom I.N. Kostrov. 1958. 319 p. (MIRA 11:9)

1. Russia (1923- U.S.S.R.) Ministerstvo elektrostantsii. Byuro tekhnicheskogo otcheta o stroitel'stve Volgo-Dona. 2. Chlen-korrespondent Akademii nauk SSSR (for Akhutin). 3. Deystvitel'nyy chlen Akademii stroitel'stva i arkhitektury SSSR (for Grishin, Razin).

(Volga Don Canal--Hydraulic engineering)

APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R000514720015-6"

"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R000514720015-6

KHASKHACHIKH, L.P.; SOKOLOV, B.A.; GENKIN, Ye.M.; SEVAST'YANOV, V.I., glav. red.; KUZNETSOV, A.Ya., zam. glav. red.; MIKHAYLOV, A.V., doktor tekhn. nauk, zam. glav. red.; ABRAMOV, Yu.S., red.; IVANOV, M.A., red.; PETROV, G.D., doktor tekhn. nauk, red.; CHEMIN, A.N., red.

[Volga Hydroelectric Power Station (22d Congress of the CPSU); album of engineering drawing] Volzhskaia gidroelektrostantsiia im. XXII s"ezda KPSS; al'bom chertezhei. Moskva, Gosenergoizdat. Pt.2. [Organization and the carrying out of installation and construction operations] Organizatsiia i proizvodstvo stroitel'no-montazhnykh rabot. 1963. 74 p. (MIRA 16:11)

1. Moscow. Vsesoyuznyy proyektno-izyskatel'skiy i nauchno-issledovatel'skiy institut "Gidroproyekt" im. I.Ya.Zhuk. (Volga Hydroelectric Power Station(22d Congress of the CPSU)

APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R000514720015-6"

"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R000514720015-6

SHESTOPALOV, Aleksandr Osipovich, kand. tekhn. nauk; BONDARENKO, Viktor Ivanovich, inzh.; KOSTROV, I.N., inzh., retsenzent; ENGEL', F.F., inzh., nauchnyy red.; GENKIN, Ye.M., red.; SEMUSHKIN, I.S., tekhn. red.

[Lowering the water level in the construction of the Volga Hydroelectric Power Station (22d Congress of the CPSU)] Vodoponizhenie na stroitel'stve Volzhskoi gidroelektrostantsii imeni XXII s"ezda KPSS. Moskva, Gidroproekt, 1962. 86 p. (MIRA 17:4)

APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R000514720015-6"

"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R000514720015-6

GEN'KIN, Yu.I.

Boring bar for machining tailstock of lathes. Mashinostroitel' no. 5:25 My '64. (MIRA 17:7)

APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R000514720015-6"

"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R000514720015-6

GENKIN, Z.A.

Comparison of calculated and measured data for a case of the spreading flow of the tailwater of the Kayrak-Kuma Hydroelectric Power Station. Sbor. dokl. po gidr. VNIIG no.4:176-185 '62. (MIRA 18:7)

APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R000514720015-6"

"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R000514720015-6

GENKINA, B.L.

**Nitrogen metabolism in children ill with colitis dysentery with carbohydrate and protein diets.** R. F. Leenson and B. L. Genkina. *Kazan. Med. Zhur.* 34, 376-82 (1938); *Chem. Zentr.* 1939, I, 4641. At the peak of the illness the N content of the urine was sharply reduced while the amino N content was relatively high (up to 25% of the total N) regardless of the diet used. When the children were kept on a protein diet the N in the urine increased considerably during convalescence while with a carbohydrate diet it remained low. The high creatinine content of the urine decreased during convalescence when the patient received a protein diet but remained relatively high when the diet was of carbohydrate. This last fact together with the simultaneous increase of amino-aciduria are evidence that with the use of a carbohydrate diet for a long period a craving for albumin develops and there is extensive breaking down of the protein of the body itself.

M. G. Moore

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION

APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R000514720015-6"

"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R000514720015-6

GENKINA, B.L.

C4

PROCESSES AND PROPERTIES INDEX

**Effect of massive doses of streptocide on the acid alkali balance in septic patients and in healthy cases.** A. M. Genkin and B. L. Genkina (Sverdlovsk Matern. Research Inst.). *Klin. Med.* (U.S.S.R.) 35, No. 3, 45-9(1945).—Sulfanilamide (8 g. daily) was administered orally and by injection to septic patients and healthy subjects for 5 days. Alk. reserve was little affected in septic cases (30-33 vol. % $CO_2$), but dropped to this level in healthy subjects from 56. Lactic acid rose slightly then returned to initial value in the sick, but continued to climb in healthy subjects up to 18 mg.% from normal (11.8.). Erythrocyte Cl-plasma Cl ratio rose by 30% in the sick and by 50% in healthy persons. The greatest rise in org. acids in healthy subjects occurs mainly in β-hydroxybutyric acid. G. M. K.

114

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION

APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R000514720015-6"

"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R000514720015-6

LEVENSON, R.Ye.; SKVORTSOVA, A.A.; GENKINA, B.L.

Effect of therapeutic doses of sulfidine on function of the thyroid gland in normal children. Vopr. pediat. 20 no.1:28-30 Jan-Feb 1952. (CLML 22:1)

1. Of the Department of Faculty Pediatrics, Sverdlovsk Medical Institute (Director -- Docent V. S. Serebrennikov).

APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R000514720015-6"

"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R000514720015-6

FEDIN, K.A.; BAYEVSKIY, D.A., doktor istor.nauk; VOLKOV, N.S., doktor istor.nauk; GENKINA, E.B., doktor istor.nauk; KUCHKIN, A.P., doktor istor.nauk; KOSTOMAROV, G.D., prof.; DADYKIN, R.P., kand. istor.nauk; ROGACHEVSKAYA, L.S., kand.istor.nauk; SHABALIN, B.I., kand.istor.nauk; MAMONTOV, I.S.; PIROGOV, V.K., prepodavatel'

Let's write the history of our plants and factories; a letter to the editors. Sov.profsoiuzy 16 no.7:62-63 Ap '60. (MIRA 13:4)

1. Sekretar' Soyuza pisateley SSSR (for Fedin). 2. Glavnyy redaktor izd-va "Moskovskiy rabochiy" (for Mamontov).
(Factories)

APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R000514720015-6"

"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R000514720015-6

TABOLIN, V.A.; VOL'F, B.S.; MATSULEVA, N.N.; GENKINA, E.M.; ORLOVA, L.M.; PETRUN'KINA, Z.A.

Features of the course of erythroblastosis fetalis in newborn infants. Sov. med. 24 no. 7:50-56 Jl '60. (MIRA 13:8)

1. Iz kafedry pediatrii (zav. - prof. G.N. Speranskiy) TSentral'nogo instituta usovershenstvovaniya vrachey i rodil'nogo doma No. 12 (glavnyy vrach M.M. Repina), Moskva.
(ERYTHROBLASTOSIS FETAL)

APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R000514720015-6"

"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R000514720015-6

GENDON, Yu.Z., kand.med.nauk; LEVENBUK, I.S., kand.med.nauk; GENKINA, F.B.; MAL'TSEVA, L.Z.

Study of the sensitivity of monkeys and a tissue culture of monkey kidney to minimal doses of poliomyelitis virus. Vest. AMN SSSR 15 no.7:28-41 '60. (MIRA 13:11)

1. Moskovskiy nauchno-issledovatel'skiy institut virusnykh preparatov.
(POLIOMYELITIS)

APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R000514720015-6"

"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R000514720015-6

GENKINA, F.B.

Importance of the age of a kidney tissue culture of monkeys in the detection of the poliomyelitis virus. Trudy Mosk. nauch.-issl. inst. virus. prep. 2:102-106 '61. (MIRA 17:1)

APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R000514720015-6"

"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R000514720015-6

GENDON, Yu.Z.; DOSSER, Ye.M.; RAPOPORT, R.I.; GENKINA, F.B.

Developing a method for the preparation of tissue smallpox vaccine. Vop. virus 8 no.1:114-115 Ja-F'63. (MIRA 16:6)

1. Moskovskiy nauchno-issledovatel'skiy institut virusnykh preparatov. (SMALLPOX) (VACCINES)

APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R000514720015-6"

"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R000514720015-6

GHENDON, J.Z.; GENKINA, F.B.; MILUSHIN, V.N.; MUCHNIK, L.S.

Comparative study of methods of evaluating the activity of smallpox vaccine. J. hyg. epidem. (Praha) 8 no.3:364-374 '64

1. Institute of Virus Preparations, Moscow.

APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R000514720015-6"

"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R000514720015-6

GENDON, Yu.Z.; CHERNOS, V.I.; GENKINA, F.B.

Characteristics of genetically homogenous clones of the smallpox vaccine virus. Vop. virus. 9 no.3:291-295 My-Je '64.
(MIRA 18:1)

1. Moskovskiy nauchno-issledovatel'skiy institut virusnykh preparatov.

APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R000514720015-6"

"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R000514720015-6

Genkina, F. B., Marennikova, S. S., Akatova-Shelukhina, E. M.; Val'tseva, M. N.
Milushkin, V. N. and Miniovich, F. L.

"Hyperimmune antivaccinia Gamma Globulin from Animal Sera."

report submitted for the Expert Committee on Smallpox, World Health Organization, Geneva, 14-20 Jan 1964.

Inst. for Research on Viral Preparations, Moscow.

APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R000514720015-6"

"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R000514720015-6

GENKINA, G.B.

PASHKOV, B.N.; KARACHEVTSEVA, V.N.; ROBUSTOV, G.V.; KHAMAGANOVA, A.V.; ANDROSOVA, A.A.; BELYAKOVA, A.G.; GENKINA, G.B.; ZATURENSKAIA, P.O.; VYMEKAYEVA, M.A.; GOL'DENBERG, M.M.; BOLDYREVA, A.M.; TURANOV, N.M., kandidat meditsinskikh nauk, direktor; BRONSHTEYN, V.G., kandidat meditsinskikh nauk, zaveduyushchiy; VINOGRADOVA, K.A., zaveduyushchaya.

Results of the treatment of syphilis in children according to the 1949 program of the Ministry of Health of USSR; preliminary communication. Vest. ven.i derm. no.2:28-34 Mr-Ap '53. (MLRA 6:5)

1. Tsentral'nyy koshno-venerologicheskiy institut (for Pashkov, Karachevtseva, Robustov, Khamaganova, Turanov). 2. Bol'nitsa imeni Korolenko (for Androsova, Belyakova, Genkina, Zaturenskaya). 3. Vtoroy Moskovskiy vendispanser (for Vymekayeva, Gol'denberg, Bronshteyn). 4. Pervyy vendispanser (for Boldyreva, Vinogradova). (Syphilis) (Penicillin--Therapeutic use)

APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R000514720015-6"

"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R000514720015-6

GENKINA, G.B., Ordinator

Early roentgenologic diagnosis of dental dystrophies pathognomonic for late congenital syphilis. Stomatologiia no.3: 16-17 My-Je '55. (MLRA 8:9)

1. Iz detskogo otdeleniya bol'nitsy imeni Korolenko(Glavnyy vrach--Zaslushennyy vrach RSFSR V.P. Nikolayev) i iz otdela sifilidologii (zav.prof. N.S.Smelov) TSentral'nogo kozhno-venerologicheskogo instituta (dir.kandidat meditsinskikh nauk N.M. Turanov) Ministerstva zdravookhraneniya SSSR.

(SYPHILIS, CONGENITAL, pathology,
teeth dystrophy, diag.,x-ray)
(TEETH, diseases,
dystrophy in congenasyphilis, diag.)

APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R000514720015-6"

"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R000514720015-6

KARACHEVTSEVA, V.N.; GENKINA, G.B.

Tissue therapy in interstitial keratitis and sulfur-resistant congenital syphilis. Vest.ven. i derm. no.4:54-55 Jl-Ag '55. (MLRA 8:12)

1. Iz otdeleniya vrozhdennogo sifilisa TSentral'nogo kozhno-venerologicheskogo instituta Ministerstva zdravookhraneniya SSSR i detskogo otdeleniya Bol'nitsy imeni Korolenko.
(TISSUE EXTRACTS) (CORNEA--DISEASES)
(SIPHILIS, CONGENITAL, HEREDITARY AND INFANTILE)

APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R000514720015-6"

"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R000514720015-6

PASHKOV, B.M., prof.; ANDROSOVA, A.A.; BELYAKOVA, A.G.; GENKINA, G.B.; ZATURENSKAYA, P.O.; KHAMAGANOVA, A.V.

Results of treating congenital syphilis according to the 1949 treatment system and reasons for switching to the 1954 system [with summary in English]. Vest.derm. i ven. 32 no.1:37-42 Ja-F '58. (MIRA 11:4)

1. Iz otdela sigilidologii (zav.-prof. M.A.Rozentul) TSentral'nogo kozhno-venerologicheskogo instituta (dir.-dotsent N.M.Turanov) Ministerstva zdravookhraneniya SSSR, iz Klinicheskoy bol'nitsy imeni Korolenko (glavnyy vrach-zasluzhennyy vrach RSFSR V.P.Nikolayev) i kafedry kozhnykh i venericheskikh bolezney (zav.-prof. B.M.Pashkov) Moskovskogo meditsinskogo stomatologicheskogo instituta (dir.-dots. G.N.Beletskiy)

(SYPHILIS, CONGENITAL, ther.
in Russia (Rus)

APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R000514720015-6"

"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R000514720015-6

GENKINA, G.B.

Characteristics of the appearance and therapy of parenchymatous keratitis in late congenital syphilis. Vest.derm.i ven. no.8:57-60 '62. (MIRA 15:9)

1. Iz otdela sifilidologii (zav. - prof. M.A. Rozentul) TSentral'nogo kozhno-venerologicheskogo instituta (dir. - kand. med.nauk N.M. Turanov) Ministerstva zdravookhraneniya RSFSR i Klinicheskoy kozhno-venerologicheskoy bol'nitsy imeni V.G. Korolenko (glavnyy vrach A.I. Pustovaya).
(SYPHILIS) (CORNEA—DISEASES)

APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R000514720015-6"

"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R000514720015-6

28183

S/190/61/003/010/012/019
B124/B110

15 8080

AUTHORS: Fedotova, O. Ya., Kerber, M. L., Losev, I. P., Genkina, G. K., Dynina, L. B.

TITLE: Some properties of aromatic and aryl-aliphatic polyamides prepared by interfacial polycondensation. II

PERIODICAL: Vysokomolekulyarnyye soyedineniya, v. 3, no. 10, 1961, 1524 - 1527

TEXT: The authors studied the effect of different organic solvents, of the concentration of reagents, of lyes and emulsifiers upon the non-equilibrium interfacial polycondensation of aromatic diamines (p-phenylene diamine, 4,4'-diamino-diphenyl (benzidine), diamino-diphenyl methane, 4,4'-diamino-diphenyl ethane (DPE)) with chlorides of dicarboxylic acids (sebacic-acid chloride). The aim of the present study was to synthesize polymers having higher molecular weight and higher strength than those synthesized as yet. Polycondensation was conducted in a device for milling tissues. The results obtained as to the effect of the nature of the organic solvent upon the viscosity of the polymer for a concentration of reagents of 0.05 moles/liter are given in a table. Therefrom, it

Card 1/6

APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R000514720015-6"

"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R000514720015-6

28183
S/190/61/003/010/012/019
B124/B110

Some properties of aromatic...

becomes evident that (except for DPE which has the highest viscosity in $CCl_4$) the best results are obtained in aromatic hydrocarbons. Since the polymer is poorly soluble in all these solvents, the effect of these solvents depends upon the different polarity of molecules. The viscosity of the polymer depends slightly on the concentration of the initial components in the range of 0.005 to 0.05 moles/liter; an exception is the polymer of DPE, the viscosity of which considerably increases between 0.0125 and 0.015 moles/liter (Fig. 1). The viscosity of the polymer proved to be independent of the excess of initial components. Fig. 3 shows that the viscosity of polyamide solutions increases up to a KOH excess of 2 - 2.5 equivalents; the viscosity of the polymer on the basis of benzidine, however, anomalously increases in acid solution. This phenomenon could not be explained as yet. Also the effect of three different types of emulsifiers upon the viscosity of polyamides was studied, viz., of the high-molecular protective type (Solvar = incompletely saponified polyvinyl acetate), of the ionogenic type (sodium lauryl sulfonate), and of the non-ionogenic type (OP-10 (OP-10) = ester of isooctyl phenol and of polyethylene glycol with 10 hydroxy-ethyl groups). Best results were obtained when using 0.3% OP-10 referred to

Card 2/6

APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R000514720015-6"

"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R000514720015-6

28183
S/190/61/003/010/012/019
B124/B110

Some properties of aromatic...

the aqueous phase. The viscosity of the polymer on the basis of benzidine increased to nearly the double, that of the polymer of DPE to the 1.5-fold. The viscosity of other polymers increased somewhat less. By observing the optimum conditions found, it was possible to obtain polymers of an intrinsic viscosity of 0.6 - 0.7 in concentrated $H_2SO_4$.

L. B. Sokolov (Ref. 2: Vysokomolek. soyed. 1, 698, 1960) is mentioned. There are 3 figures, 1 table, and 3 references: 2 Soviet and 1 non-Soviet. The reference to the English-language publication reads as follows: British Patent no. 737184.

ASSOCIATION: Moskovskiy khimiko-tekhnologicheskiy institut im. D. I. Mendeleyeva (Moscow Institute of Chemical Technology imeni D. I. Mendeleyev)

SUBMITTED: November 19, 1960

Card 3/6

APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R000514720015-6"

"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R000514720015-6

L 52114-65 EPF(c)/EPR/EWP(j)/EWT(m)/T Pc-4/Pr-4/Ps-4 RM/WW

ACCESSION NR: AP5015296 UR/0286/65/000/009/0068/0068

AUTHORS: Korshak, V. V.; Vinogradova, S. V.; Salazkin, S. N.; Genkina, G. K.

TITLE: A method for obtaining uniform and mixed thermoplastic and thermoreactive polyarylates. Class 39, No. 170668

SOURCE: Byulleten' izobreteniy i tovarnykh znakov, no. 9, 1965, 68

TOPIC TAGS: polyarylate, thermoplastics, chloranhydride, dicarboxylic acid, phenol, phenoltetrachlorophthalein

ABSTRACT: This Author Certificate presents a method for obtaining uniform and mixed thermoplastic and thermoreactive polyarylates based on chloranhydrides of dicarboxylic acids and 2-atom phenols. To obtain nonflammable and self-stopping polyarylates, phenoltetrachlorophthalein is used as the 2-atom phenol.

ASSOCIATION: none

SUBMITTED: 20Apr64 ENCL: 00 SUB CODE: OC

NO REF SOV: 000 OTHER: 000

Card 1/1

APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R000514720015-6"

"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R000514720015-6

ABUBAKIROV, N.K.; GENKINA, G.L.

Photometric determination of cardiac glycosides of the strophanthidin group by means of 3,5-dinitrobenzoic acid. Uzb. khim. zhur. no.6: 63-72 '60. (MIRA 14:1)

1. Institut khimii rastitel'nykh veshchestv AN UzSSR.
(Strophanthidin) (Cardiac glycosides)

APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R000514720015-6"

"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R000514720015-6

GENKINA, G.L.; ABUBAKIROV, N.K.

Quantitative determination of cardiac jute glycosides. Uzb.khim.zhur. 9 no.1:18-22 '65. (MIRA 18:6)

1. Institut khimii rastitel'nykh veshshestv AN Uzbekskoy SSR.

APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R000514720015-6"

"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R000514720015-6

GENKINA, L.

Planning the turnover of a retail enterprise. Sov. torg. 33 no.8:29-30 Ag '59. (MIRA 12:11)
(Retail trade)

APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R000514720015-6"

"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R000514720015-6

MIN, L., dotsent

Let's improve planning methods. Sov. torg. 34 no.6:33-34 Je '61. (MIRA 14:7)

(Linear programming)

APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R000514720015-6"

"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R000514720015-6

ZARINSKIY, V.A.; KOSHKIN, D.I.; POL'SKIY, V.G.; GENKINA, L.A.

Control of water purification by electrical conductivity. Vest. AN SSSR 26 no.4:36-38 Ap '56. (MLRA 9:7)
(Water--Purification) (Electric measurements)

APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R000514720015-6"

"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R000514720015-6

5(2) SOV/32-25-9-6/53

AUTHORS: Gokhshteyn, Ya. P., Genkina, L. A., Demkin, A. M.

TITLE: Determination of Niobium in Tantalum Niobium Alloys According to the Method of Oscillographic Polarography

PERIODICAL: Zavodskaya laboratoriya, 1959, Vol 25, Nr 9, pp 1042-1046 (USSR)

ABSTRACT: No distinct waves for niobium (I) in sulphuric medium on the curves "current - potential" can be obtained with the photo-recording polarograph according to Heyrovsky'. For this reason an oscillographic polarograph GEOKhI (Ref 7) was used for quantitative (I)-determinations in the presence of larger quantities of tantalum (II) and impurities of iron and titanium. The potentials of the peak $\varphi_p$ and half peak $\varphi_{p/2}$ are given with respect to the saturated calomel electrode. The potential difference between a $\varphi_{cathode}$ and a $\varphi_{auxiliary\ cathode}$ was measured by means of an electron scheme, specially constructed for the measurement of the equilibrium electromotive force. The experiments were carried out with different sulphuric acid concentrations (23n, 15n, 10n, and 5n $H_2SO_4$), and

Card 1/3

APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R000514720015-6"

"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R000514720015-6

SOV/32-25-9-6/53

Determination of Niobium in Tantalum Niobium Alloys According to the Method of Oscillographic Polarography

the oscillograms obtained were plotted (Figs 1-3). (I)-Solution was not used for the analysis since it is unstable in 5n $H_2SO_4$. Preliminary experiments showed that dissolved oxygen does not disturb the (I)-determination. Results of experiments on the dependence of the maximum current for (I) on the (I)-concentration (Table 1) show that with low (I)-concentration the current appears approximately as a linear function of the (I)-concentration. With higher (I)-concentrations a deviation from this proportionality can be observed in 15n and 10n $H_2SO_4$, which may, however, be weakened by a shorter waiting time. The influence of (II) upon the maximum current of (I) in the electrolysis of $Nb^{5+}$-solutions was investigated. It was found that only a slight influence is exerted upon the first cathode wave of (I) as well as upon anode polarization, as may be seen from data on the dependence of maximum current for (I) on the (I)-concentration with an excess of (II) (20 : 1 = Ta : Nb) (Table 2). It was also ascertained that a 50fold excess of

Card 2/3

APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R000514720015-6"

"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R000514720015-6

SOV/32-25-9-6/53

Determination of Niobium in Tantalum Niobium Alloys According to the Method of Oscillographic Polarography

titanium, as well as impurities of iron, exert no influence upon the (I)-current in $H_2SO_4$-solutions. A course of analysis is given, where in 23n $H_2SO_4$ the computation takes place from the first cathode wave, or the anode wave, and in 15n and 10n $H_2SO_4$ from the anode wave of (I). Mechanical mixtures of (I) and (II) as well as alloys were investigated according to the method described, along with 3 other methods. The results were compared (Table 3). There are 2 figures, 3 tables, and 9 references, 7 of which are Soviet.

ASSOCIATION: Institut geokhimii i analiticheskoy khimii Akademii nauk SSSR i Moskovskiy elektrolampovyy zavod (Institute of Geochemistry and Analytical Chemistry of the Academy of Sciences, USSR, and Moscow Electric Bulb Factory)

Card 3/3

APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R000514720015-6"

"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R000514720015-6

S/076/60/034/010/014/022
B015/B064

AUTHORS: Gokhshteyn, Ya. P., Genkina, L. A., and Demkin, A. M.

TITLE: Kinetics of Cathode and Anode Polarization for Solutions of Niobium in Various Media

PERIODICAL: Zhurnal fizicheskoy khimii, 1960, Vol. 34, No. 10, pp. 2308-2314

TEXT: The mechanism of niobium reduction and the oxidation of its electrolysis products on a dropping mercury electrode was studied in sulfuric acid (5, 10, 15, and 23 N) and in a weakly acid medium to which Trilon B (pH = 3-3.2) or citric acid (pH = 1) were added as complex formers. The investigations were carried out by means of an oscillographic polarograph which had been supplied by the institute mentioned under "Association". Figs. 1-8 give the anode and cathode waves obtained. Data on the effect of the rate of potential change upon the maximum current I of niobium indicate that the reduction of Nb (V) on the electrode proceeds irreversibly. In the 23 N $H_2SO_4$ solution, niobium is stepwise reduced,

Card 1/3

APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R000514720015-6"

"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R000514720015-6



and the oscillogram shows two waves. The anode and cathode currents of niobium are directly proportional to the niobium concentration. A comparison between two cathode waves of niobium shows that the reduction proceeds in the following two stages: $Nb(V) \longrightarrow Nb(IV) \longrightarrow Nb(III)$. The velocity constants of the direct electrodic process and the reversible process, as well as the free activation energies of niobium were calculated from Matsuda's equation (Ref. 6) for the first stage of reduction Nb(V) in 23 N $H_2SO_4$. From the oscillograms it may be seen that the $H_2SO_4$ concentration exerts a noticeable influence upon the reduction of Nb(V). In 23 N $H_2SO_4$, niobium obviously forms a complex ion with sulfuric acid. From the values on the influence of the rate of potential change upon the peak potential and the I-value in the 0.1 M Trilon B solution it may be seen that the complex ion of Nb(V) in Trilon B is irreversibly reduced on the dropping mercury electrode. The oscillograms of anode polarization obtained in citric acid solutions show a peak at $\varphi_P = -0.981$ v and a half peak at $\varphi_{P/2} = -1.098$ v with $I = 5.04\ \mu a$, which means that the anodic process is reversible. Since for the cathode wave $\varphi_P = -1.041$ v and is,



APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R000514720015-6"

"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R000514720015-6

Kinetics of Cathode and Anode Polarization for Solutions of Niobium in Various Media

S/076/60/034/010/014/022
B015/B064

therefore, by 0.060 v more negative than $\varphi_p$ of the anodic process, the authors assume that Nb(V) is quasi-reversibly reduced in citric acid. The reduction kinetics of Nb in the citrate medium will be discussed in detail in the next paper. [Abstracter's note: The constants and activation energies are not listed since the Table contains printing errors.] There are 8 figures, 3 tables, and 10 references: 6 Soviet, 2 British, 1 German, and 1 US.

ASSOCIATION: Akademiya nauk SSSR Institut geokhimii i analiticheskoy khimii im. V. I. Vernadskogo (Institute of Geochemistry and Analytical Chemistry imeni V. I. Vernadskiy of the Academy of Sciences of the USSR). Moskovskiy elektrolampovyy zavod (Moscow Plant for Electric Lamps)

SUBMITTED: January 31, 1959

Card 3/3

APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R000514720015-6"

"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R000514720015-6

GENKINA, Liya Aleksandrovna, inzh.; BORONIKHIN, Anatoliy Sergeyevich, inzh.; ROZIN, M.Ya., red.; RASTOVA, G.V., ved. red.; VORONOVA, V.V., tekhn. red.

[Gas distributing stations and distribution regulator points of gas pipelines] Gazoraspredelitel'nye stantsii i kontrol'no-raspredelitel'nye punkty magistral'nykh gazoprovodov. Moskva, Gos.nauchno-tekhn.izd-vo neft. i gorno-toplivnoi lit-ry, 1961. 147 p. (MIRA 15:2)
(Gas, Natural--Pipelines) (Automatic control)

APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R000514720015-6"

"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R000514720015-6

SMIRNOV, Aleksandr Sergeyevich, doktor tekhn. nauk, prof.; GENKINA, Liya Aleksandrovna, inzh.; KHUSHPULYAN, Mikhail Menzikovich, inzh.; CHERNOV, Dmitriy L'vovich, inzh.; KHODANOVICH, I.Ye., kand. tekhn. nauk; STOTSKIY, L.R., red.; VRONSKIY, L.N., ved. red.; VORONOVA, V.V., tekhn. red.

[Transportation and storage of gas] Transport i khranenie gaza. [By] A.S.Smirnov i dr. Moskva, Gostoptekhizdat, 1962. 421 p. (MIRA 15:6)

(Gas, Natural--Storage)
(Gas, Natural--Transportation)

APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R000514720015-6"

"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R000514720015-6

L 17192-63 EWP(q)/EWT(m)/BDS AFFTC/ASD JD/JG
ACCESSION NR: AR3004188 S/0081/63/000/009/0153/0153

57

SOURCE: RZh. Khimiya, Abs. 9G97

AUTHOR: Gokhshteyn, Ya. P.; Genkina, L. A.; Demkin, A. M.

TITLE: Determination of niobium in tantalum-niobium alloys using oscillographic polarography

CITED SOURCE: Teoriya i praktika polyarogr. analiza, Kishinev, Shtiintsa, 1962, 34-39

TOPIC TAGS: niobium, niobium-tantalum alloy, tantalum, oscillographic polarography, cathode wave, titanium, iron, quantitative analysis

TRANSLATION: An oscillographic method was developed for determining Nb in Ta-Nb alloys against a background of 23 N $H_2SO_4$. Against this background, Nb forms two waves at -0.579 (with respect to saturated calomel electrode) and -0.770 V ($E_\pi$ -0.470 and -0.712 V, respectively), due to the irreversible reduction Nb (+5) → Nb (+4) and Nb (+4) → Nb (+3). In the case of anode polarization, one 2-electron wave was detected at -0.384 V ($E_\pi$ -0.429 V). The reduction current

Card 1/2

APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R000514720015-6

"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R000514720015-6

L 17192-63
ACCESSION NR: AR3004188

0

for Nb is proportional to its concentration in the range 5-800 γ/ml. The current of the first cathode wave is proportional to Nb concentration in the presence of a 20-fold excess of Ta; the second wave is distorted in the presence of a 10-fold excess of Ta. A 40-fold excess of Ti and Fe does not interfere with the determination of Nb. To determine Nb, 0.1 gram of the alloy is dissolved in a mixture of HF + $H_2SO_4$ with heating in an air muffle; an acidity of 23 N with respect to $H_2SO_4$ is created, and the mixture is polarographed. The relative error of the method is ~5% at an Nb content up to 30%; absolute error ~2% at a Nb content up to 80%. Duration of analysis ~one hour. G. Prokhorova.

DATE ACQ: 19Jun63 SUB CODE: CH ENCL: 00

Card 2/2

APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R000514720015-6"

"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R000514720015-6

GENKINA, L.M.; DENISYUK, N.N.; YEROCHEVICH, E.S.

Photographic observations of "Echo-2" entering the earth's shadow. Astron.zhur. 42 no.5:1117-1119 S-O '65. (MIRA 18:10)

1. Institut astrofiziki AN KazSSR.

APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R000514720015-6"

"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R000514720015-6

GENKINA, L S

N/5
783.341
.G3

Planirovaniye Khozyaystvennoy Deyatel'nosti Gosudarstvennoy Torgovoy Organizatsii (Torgfinplon Torga) (Planning of Economic Activities of the State Trading Organization, by) L. S. Genkina, B. I. Gogol', Ya. A. Kistanov (i Dr.) Pod Red. M. M. Lifitsa Uchebnoye Posobiye Dlya Torgovykh Vuzov. Moskva, Gostorgizdat, 1955.
334 p. Tables.

APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R000514720015-6"

"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R000514720015-6

SEREBRYAKOV, S.V., prof., doktor ekonom.nauk; GOGOL', B.I., dotsent; LIFITS, M.M., prof.; FEFILOV, A.I., dotsent; KISTANOV, Ya.A., dotsent; [redacted] L.S., dotsent; VASIL'YEV, S.S., dotsent; DNEPROVSKIY, S.P., prof.; PIROGOV, P.V., dotsent; SMOTRINA, N.A., dotsent; KULIKOV, A.G., dotsent; KUZIN, N.I., dotsent; PISKUNOV, V. red. ; MUKHIN, Yu., tekhn.red.

[Economics of Soviet commerce] Ekonomika sovetskoi torgovli; uchebnoe posobie. Moskva, Gos.izd-vo polit.lit-ry, 1959. 478 p. (MIRA 12:12)

(Russia--Commerce)

APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R000514720015-6"

"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R000514720015-6

VASIL'YEV, , S.S., dots.; GENKINA, L.S., dots.; GRIGOR'YAN, G.S., dots.; KISTANOV, Ya.A., dots.; KULIKOV, A.G., dots.; LIFITS, M.M., prof.[deceased]; OBLOVATSKIY, F.Ya., dots.; PIROGOV, P.V., dots.; POPOV, A.N., dots.; SMOTRINA, N.A., dots.; FEFILOV, A.I.; STARCHAKOVA, I.I., red.; EL'KINA, E.M., tekhn. red.

[Economics of commerce] Ekonomika torgovli. Red. kollegiia; Vasil'ev, S.S., Grigor'ian, G.S., Fefilov, A.I. Moskva, Gostorgizdat, 1962. 727 p. (MIRA 15:6)
(Commerce)

APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R000514720015-6"

"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R000514720015-6

GRIGOR'YAN, G.V., dots.; KISTANOV, Ya.A., dots.; FEFILOV, A.I., dots.; GENKINA, L.S., dots.; VASIL'YEV, S.S., dots.; SEREBRYAKOV, S.V., prof.; DNEPROVSKIY. S.P., prof.; PIROGOV, P.V., dots.; GOGOL', B.I., dots.; SMOTRINA, NA., dots.; KULIKOV, A.G., dots.; KUZIN, N.I., dots.; AVETISYAN, Ye., red.; MUKHIN, Yu., tekhn. red.

[Economics of Soviet commerce; textbook] Ekonomika sovetskoi torgovli; uchebnik. Moskva, Gospolitizdat, 1962. 527 p. (MIRA 15:6)

1. Moskovskiy institut narodnogo khozyaystva im. G.V.Plekhanova (for Grigor'yan, Kistanov, Fefilov, Genkina, Vasil'yev, Serebryakov, Dneprovskiy, Pirogov, Gogol', Smotrina, Kulikov, Kuzin).
(Russia--Commerce)

APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R000514720015-6"

"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R000514720015-6

GRIGOR'YAN, G.S.[Hryhor'ian, H.S.], dots.; KISTANOV, Ya.A., dots.; FEFILOV, A.I., dots.; GENKINA, L.S.[Henkina, L.S.], dots.; VASIL'YEV, S.S.[Vasil'iev, S.S.], dots.; SEREBRYAKOV, S.V., prof.; DNEPROVSKIY, S.P.[Dnieprovs'kyi, S.P.], prof.; PIROGOV, P.V.[Pyrohov, P.V.], dots.; GOGOL', B.I.[Hohol', BI.], dots.; SMOTRINA, N.A., dots.; KULIKOV, O.G.[Kulikov, O.H.], dots.; KUZIN, M.I., dots.; DEMIDYUK, V.F.[Demydiuk, V.F.], red.; SKVIRSKAYA, M.P.[Skvyrs'ka, M.P.], red.; LEVCHENKO, O.K., tekhn. red.; SERGEYEV, V.F.[Serhieiev, V.F.], tekhn. red.

[Soviet trade economics] Ekonomika radians'koi torhivli; pid-ruchnyk. [By] G.S.Grigor'ian ta inshi. Kyiv, Derzhpolitvydav URSR, 1962. 500 p. (MIRA 16:11)

(Russia—Commerce)

APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R000514720015-6"

"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R000514720015-6

GRIGOR'YAN, G.S., prof.; KISTANOV, Ya.A., prof.; FEFILOV, A.I., dots.; GENKINA, L.S., dots.; VASIL'YEV, S.S., dots.; SEREBRYAKOV, S.V., prof.; DNEPROVSKIY, S.P., prof.; PIROGOV, P.V., dots.; GOGOL', B.I., doktor ekon. nauk; SHOTRINA, N.A., dots.; KULIKOV, A.G., prof.; KUZIN, N.I., dots.[deceased]; AVETISYAN, Ye., red.; MUKHIN, Yu., tekhn. red.

[Economics of Soviet trade] Ekonomika sovetskoi torgovli; uchebnik. 2., dop. izd. Moskva, Politizdat, 1963. 519 p. (MIRA 16:12)

(Russia--Commerce)

APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R000514720015-6"

"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R000514720015-6

GENKINA, L., dotsent; SHEVYREVA, L.

Let's improve the economic basis of planning. Sov. torg. 36 no.2:3-6 F '63. (MIRA 16:4)

1. Nachal'nik planovogo otdela Moskvoretskogo pishchetorga (for Shevyreva).

(Russia—Commerce)

APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R000514720015-6"

"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R000514720015-6

LYUBIMOV, N.S., kand.tekhn.nauk; GENKINA, M.L., inzh.

Results of tests made on the Zul'tser looms. Tekst. prom. 18 no.9:31-33 S '58. (MIRA 11:10)

(Looms--Testing)

APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R000514720015-6"

"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R000514720015-6

SOKOLOV, G.V., insh.; LABUZOVA, Z.I.; GENKINA, M.L.; RAKHLINA, S.S., kand.tekhn. nauk; SHATROVA, Ye.S., kolorist 1-y kategorii; TALANINA, A.S., kolorist 1-y kategorii; TAMVEL', A.Ya., kand.tekhn.nauk

"Processing of artificial fibers" Translation from the English by D.I.Venediktova, K.K.Lupandina. Book review by G.V.Sokolov and others. Tekst.prom. 19 no.2:71-73 F '59. (MIRA 12:5)
(United States--Textile fibers, Synthetic) (Technology--Translating)
(Venediktova, D.I.) (Lupandina, K.K.)

APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R000514720015-6"

"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R000514720015-6

GENKINA, M. N.

Genkina, M. N. "Medicinal and socio-industrial characteristics of invalids of the Fatherland War who had neuropsychiatric disturbances (in Leningrad)," Ogr.-metod. voprosy sov. neyropsikiatrii (VII), 1948, p. 49-58

SO: U-3264, 10 April 53, (Letopis 'Zhurnal 'nykh Statey, No. 4, 1949).

APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R000514720015-6"

"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R000514720015-6

GENKINA, M. N.

Genkina, M. N. "On the modernization of the chronic case wards of psychiatric hospitals," Ogr.-metod. voprosy sov. neyropsikiatrii (VII), 1948, p. 113-17

SO: U-3264 10 April 53, (Letopis 'Zhurnal 'nykh Statey, No. 4, 1949).

APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R000514720015-6"

"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R000514720015-6

L 10536-66 EWT(d)/FSS-2

ACC NR: AR5018781 SOURCE CODE: UR/0274/65/000/007/V024/V025

SOURCE: Ref. zh. Radiotekhnika i elektrosvyaz'. Svodnyy tom, Abs. 7V167

32
B

AUTHOR: Genkina, N. F.; Volkovitskiy, K. Ye.

44,55 44,55

TITLE: Elimination of the register-shift mechanism in an electronic telegraph receiver

CITED SOURCE: Tr. uchebn. in-tov svyazi. M-vo svyazi SSSR, vyp. 21, 1964, 133-140

TOPIC TAGS: telegraph equipment, electronic circuit

46 44,55

TRANSLATION: A single-row type wheel of a 3-register electronic telegraph apparatus is described, and the circuit of an electronic converter for no-register reception designed with ferrite-diode single-end-connected binary elements is

Card 1/2 UDC: 621.394.723

APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R000514720015-6"

"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R000514720015-6

L 10536-66
ACC NR: AR5018781

presented. To simplify the above mechanism and to replace the 3-row type wheel with a single-row wheel, it is suggested that the letters, numerals, and signs be deployed on both sides of the single-row wheel beginning from its rotation-start point. A special circuit of the electronic converter permits elimination of blank spots on the wheel rim, which (on 3-row wheels) were needed to ensure the time periods for reception of register combinations and for operation of the tape transport. The time of passing of each half-wheel over the print-magnet striker must not be shorter than the time of operation of the tape transport. This precludes the possibility of printing the first character after the last without receiving the register-shift combination between them. The operation of the tape-transport mechanism starts immediately after the character has been printed, and the mechanism has sufficient time for its operation under all conditions. A table of letters, numerals, and signs arranged on the single-row-wheel rim is shown. The above type-wheel design was used in a prototype of the electronic telegraph apparatus; the quality of print was not inferior to that of the ST-35 apparatus. Bib 3, figs 3.

SUB CODE: 17, 09

Card 2/2 yw

APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R000514720015-6"

"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R000514720015-6

PROCESSES AND PROPERTIES INDEX

24

CA

**The mechanism of the formation of oxides of nitrogen in the explosion of combustible mixtures.** II. M. V. Polyakov and M. I. Gonikina. *Acta Physicochim. U. R. S. S.* 11, 443-52(1939)(in English); cf. *C. A.* 34, 1658[8]. Data on the yield of NO in the explosion of $CH_4 + O_2 + N_2$ as a function of pressure and diam. of reaction vessel show that the max. amt. of NO is obtained at a definite pressure which is a function of the diam.: 1.0% at 310 mm. with diam. = 8.6 cm.; 1.4%, 200 mm., 11.5 cm.; 1.35%, 120 mm., 15.5 cm.; 1.15%, 140 mm., 24 cm. The results support the chain mechanism theory of the reaction as proposed by P. and G. F. H. Rathmann

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION

APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R000514720015-6"

"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R000514720015-6

1ST AND 2ND ORDERS

PROCESSES AND PROPERTIES INDEX

GENKINA, R.I.

**Mechanism of formation of oxides of nitrogen in the oxidation of combustible fuel mixtures.** A. G. Tkachenko, R. I. Genkina and M. V. Polyakov. *J. Phys. Chem.* (U. S. S. R.) 13, 464-72 (1939).—Mixts. of $CH_4$-$N_2O_4$ and $CO$-$N_2O_4$ were exploded in glass vessels and the gaseous products analyzed. The amts. of NO formed are shown in 7 figures as functions of the exptl. conditions. The max. amts. of NO are obtained for an $O_2/CH_4$ ratio of 3, and a diam. of 100 mm. For the CO combustion, the max. NO concn. is obtained for $O_2/CO$ = 1.5 at 40 mm., 2.0 at 85, 2.3 at 105, and none than 3 at 143 mm. pressure. The max. amt. of NO obtained in any case was 1.0%.

F. H. Rathmann

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION

APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R000514720015-6"

"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R000514720015-6

GENKINA, R. I.

R. S. Axelrod, R. I. Genkina and F. I. Yudelevitch

"A Rapid Method for the Determination of Moisture in Plastics," by R. S. Axelrod, R. I. Genkina and F. I. Yudelevitch, Works Laboratory 16, 112, January 1950. Central Scientific Research Laboratory of the Trust "Ukraplastmass".

ABSTRACT AVAILABLE

D-50054

APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R000514720015-6"

"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R000514720015-6

GENKINA, R.Z.

Fossil flora and stratigraphy of coal-bearing sediments in the Severnaya-Sos'va Basin. Izv. AN SSSR. Ser. geol. 25 no.10:70-76 O '60. (MIRA 13:10)

1. Institut geologii i razrabotki goryuchikh iskopayemykh AN SSSR, Moskva.
(Northern Sos'va Valley--Coal geology)

APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R000514720015-6"