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"APPROVED FOR RELEASE: 03/13/2001 CIA-RDP86-00513R001135120005-3

AUTHORS: Morachevskiy, A. G., Delousov, V. P. 54-1-11/17

TITLE: The Study of Three-phase Equilibriums in the Benzene-Ethyl Alcohol-Water System (Issledovaniye trekhfaznykh ravnovesiy v sistemo benzol-etilovyy spirt-voda)

PERIODICAL: Vestnik Leningradskogo Universiteta Seriya Fiziki i Khimii (Nr 1), 1958, Nr 4,

ABSTRACT: M. S., Vrevskiy (ref. 1) set up rules which determine the influence of the solution exercised by a change of temperature on the composition of the vapors and of the composition azeotropic mixtures. These problems were investigated by numerous authors and were extended to multicomponent systems. As yet, however, the rules governing the influence of temperature on the composition of the vapors of solutions able to dissociate and on the composition of heteroazeotropes remains unexplained (in the case of binary systems, if by composition of heteroazeotropes a composition of vapor is meant which is in equilibrium with two liquid layers, the two problems are identical. In ternary systems, however, these problems differ as to their respective significance).

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"APPROVED FOR RELEASE: 03/13/2001 CIA-RDP86-00513R001135120005-3

The Study of Three-phase Equilibriums in the Benzene-Ethyl Alcohol-Water System

54-1-11/17

The authors thank professor A.V. Storonkin for his kindness. The paper gives the result of the liquid-liquid vapor equilibrium in the system C_6H_6-C_2H_5OH-H_2O at temperatures of 35, 45, 55 and 64°C. The composition of the ternary heteroazeotropes at different temperatures and pressures was determined. There are 6 figures, 6 tables, and 11 references, 6 of which are Slavic.

SUBMITTED: February 4, 1957

AVAILABLE: Library of Congress

1. Vapor compounds-Theoretical analysis

APPROVED FOR RELEASE: 03/13/2001 CIA-RDP86-00513R001135120005-3"

"APPROVED FOR RELEASE: 03/13/2001 CIA-RDP86-00513R001135120005-3

AUTHORS: Storonkin, A.V., Korchemskiy, A.G., Belousov, V.P.

54-10-2-9/16

TITLE: The Effect of Temperature on the Composition of Binary Heteroazeotropes (O vliyanii temperatury na sostav binarnykh geteroazeotropov)

PERIODICAL: Vestnik Leningradskogo Universiteta, Seriya fiziki i khimii 1958, Vol. 10, Nr 2, pp. 94-100 (USSR)

ABSTRACT: This paper deals with general equations which determine the changes in the composition of binary heteroazeotropes in the case of a change of temperature, and the correlation between the change of composition and the shape of the curve of the reciprocal solubility of the liquids is discussed. It is obvious that the question relating to the influence exercised by temperature upon the composition of the binary heteroazeotropes is identical with that of the influence of temperature upon the vapor composition of the binary stratifying solution. Therefore, this problem is best solved by means of equations which express the equilibrium of the three-phase systems (Ref 5). On the basis of the equation:

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$$\frac{dx^{(3)}}{dT} = \frac{q_{31} - q_{32}}{\left(\frac{\partial^2 f}{\partial x^2}\right)_{P,T} (x^{(2)} - x^{(1)})} = \frac{Q_{31} - Q_{32}}{T\left(\frac{\partial^2 f}{\partial x^2}\right)^{(3)}_{P,T} (x^{(2)} - x^{(1)})}$$

the following conclusion may be drawn: If temperature rises, content of components in the binary heteroazeotrope increases which shows high concentration in that liquid layer during the condensation of which the greatest amount of heat is separated. This layer has a high differential molar evaporation temperature, and therefore the formulation given cannot be circumscribed accordingly. The problem of the influence exercised by temperature upon the change of composition of the binary heteroazeotrope can also be solved by another method, which also offers certain advantages. Let it be assumed that the partial molar temperature of the evaporation of one of the components is higher in all compositions of the solutions than that of others. A - component with higher evaporation temperature, L_A - its evaporation temperature, x_A - molar part. In view of such a condition it is possible to name 4 variants of the dependence of the reciprocal solubility of the

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components upon temperature:

1.) With rising temperature reciprocal solubility increases: The A-component content increases in the layer with the lowest A-content.
2.) With rising temperature reciprocal solubility diminishes; the A-component content increases in the layer having the highest A-content.
3.) With rising temperature the content of A in both layers increases.
4.) With rising temperature the content of A in both layers diminishes.

These variants of the solubility curves are shown (fig.2). It is possible that such systems exist in which the correlation of the partial molar temperature of the evaporation of components will be different in different layers; thus, for one layer it may be $L_A > L_B$, and for the other $L_B > L_A$. However, for such cases, which are apparently very rare, it is practically of no interest

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The Effect of Temperature on the Composition of Binary Heteroazeotropes

54-10-29 /16

to connect the change of heteroazeotropic composition with the temperature values of the evaporation of components, though discussions, such as the one mentioned above, are, of course, possible also in this case. There are 2 figures, and 9 references, 6 of which are Soviet.

SUBMITTED: December 25, 1957

AVAILABLE: Library of Congress

1. Binary heteroazeotropes—Temperature factors—Theory
2. Binary heteroazeotropes—Solubility—Temperature factors

Card 4/4

APPROVED FOR RELEASE: 03/13/2001 CIA-RDP86-00513R001135120005-3"

"APPROVED FOR RELEASE: 03/13/2001 CIA-RDP86-00513R001135120005-3

MORACHEVSKIY, A.G.; BELOUSOV, V.P.

Study of three phase equilibrid in the system benzene-ethyl alcohol-water [with summary in English]. Vest.LGU 13, no.4:117-125 '58.
(Benzene) (Ethyl alcohol) (MIRA 11:4)
(Phase rule and equilibrium)

APPROVED FOR RELEASE: 03/13/2001 CIA-RDP86-00513R001135120005-3"

"APPROVED FOR RELEASE: 03/13/2001 CIA-RDP86-00513R001135120005-3

STORONKIN, A.V.; MORACHEVSKIY, A.G.; BELOUSOV, V.P.

Effect of temperature on the composition of binary heteroazeotropes [with summary in English]. Vest. LGU 13 no.10:94-100 '58.
(Systems (Chemistry)) (MIRA 11:6)
(Azeotropy)

APPROVED FOR RELEASE: 03/13/2001 CIA-RDP86-00513R001135120005-3"

"APPROVED FOR RELEASE: 03/13/2001 CIA-RDP86-00513R001135120005-3

AUTHORS: Alabyshev, A. F., Lantratov, M. F., Morachevskiy, A. G. (Leningrad)

SOV/78-27-8-1/7

TITLE: The Thermodynamic Properties of Liquid Alloys Containing Alkali Metals (Termodinamicheskiye svoystva zhidkikh splavov, soderzhashchikh shchelochnyye metally)

PERIODICAL: Uspekhi khimii, 1958, Vol. 27, Nr 8, pp. 921 - 937 (USSR)

ABSTRACT: First the authors mention that during the last years the interest in the investigation of the thermodynamic properties of liquid metal solutions has considerably increased. The investigation of these thermodynamic properties plays an important role in the elaboration of present-day theory of concentrated solutions. The investigation of the thermodynamic properties of potassium and sodium alloys (Refs 22-24) is of special interest. There are, generally speaking, two methods for the experimental investigation of the thermodynamic properties of liquid alloys containing any alkali metal: the method of the measuring of the partial vapor pressure, and the method of measuring the EMF of concentrated chains (Refs 1,2,8,25). After referring to some papers dealing with this field (Refs 31-38) the authors in

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a special chapter mention the potassium and sodium alloys of lead. In the next chapter the authors deal with the sodium, potassium and cesium alloys of mercury. The third chapter deals with the sodium and potassium alloys with thallium. In the fourth chapter the sodium and potassium alloys with bismuth are described. In the fifth chapter the authors deal with the sodium alloys with tin, and in the sixth chapter with the sodium alloys with cadmium. The seventh chapter deals with the entropy and the degrees of the heat in the mixture of the alloys. Then it is mentioned that the formation of alloys in which also alkali metals are contained takes place exothermally. The partial molar mixture entropy (in formation of compounds) differs greatly from the theoretical values obtained. The considerable negative values $\overline{\Delta S}$ may be explained by the nature of the chemical bonds in metal compounds. There are 19 figures, 1 table, and 79 references, 31 of which are Soviet.

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"APPROVED FOR RELEASE: 03/13/2001 CIA-RDP86-00513R001135120005-3

The Thermodynamic Properties of Liquid Alloys Containing Alkali Metals SOV/74-27-8-1/7

1. Alloys (Liquid)--Thermodynamic properties 2. Alkali metals--Thermodynamic properties 3. Intermetallic compounds--Bonding

Card 3/3

APPROVED FOR RELEASE: 03/13/2001 CIA-RDP86-00513R001135120005-3"

"APPROVED FOR RELEASE: 03/13/2001 CIA-RDP86-00513R001135120005-3

MORACHEVSKIY, A.G.

Termodynamic properties of liquid alloys in sodium - lead systems.
Zhur. prikl. khim. 31 no.8:1266-1269 Ag '58. (MIRA 11:10)

1.Leningradskiy politekhnicheskiy institut imeni M.I. Kalinina.
(Sodium-lead alloys)

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SOV/2-3

PHASE I BOOK EXPLOITATION

Akademiya nauk SSSR, Otdeleniye khimicheskikh nauk

Termodinamika i stroyeniye rastvorov; trudy soveshchaniya... (Thermodynamics and Structure of Solutions; Transactions of the Conference Held January 27-30, 1958) Moscow, Izd-vo AN SSSR, 1959. 275 p. 3,000 copies printed.

Ed.: M. I. Shakhparonov, Doctor of Chemical Sciences; Ed. of Publishing House: N. G. Yegorov; Tech. Ed.: T. V. Polyakova.

PURPOSE: This book is intended for physicists, chemists, and chemical engineers.

COVERAGE: This collection of papers was originally presented at the Conference on Thermodynamics and Structure of Solutions sponsored by the Section of Chemical Sciences of the Academy of Sciences, USSR, and the Department of Chemistry of Moscow State University, and held in Moscow on January 27-30, 1958. Officers of the conference are listed in the Foreword. A list of other reports also read at the conference, but not included in this book, are given. Among the problems treated in this work are: electrolytic solutions, ultrasonic measurement, dielectric and thermodynamic properties of various mixtures, spectroscopic analysis, etc. References accompany individual articles.

Shakhparonov, M. I. Present Problems of the Thermodynamic Theory of Solutions of Nonelectrolytes 36

Skrinov, V. P. Fluctuation of Energy in Solutions and Their Relation to Heat Capacity 43

Fisher, I. Z., and V. I. Kas'nich. Molecular Theory of Solubility 48

Krichevskiy, I. R., and N. Ye. Khazanova. Critical Phenomena in Binary Liquid Systems 49

Rastorgu, Y. P. Study of the Critical States of Individual Compounds and of Their Mixtures With the Aid of Ultrasonic Methods 56

Barlaev, S. N., and A. A. Rasnikova. Phase Transitions in Simple Systems and Their Classification 67

Bakhrushin, S. S. Use of Ultrasonic Measurements in the Study of Solutions 72

Sverdlovskiy, V. V., and E. I. Zaborenko. Transformation of Binary Heterozeotropes Into Homozeotropes and Homoazeotropes 79

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Sharmakin, A. V., and N. N. Shalita. Relation of Thermodynamic Properties of Saturated and Nearly Saturated Ternary Solutions to Their Composition 93

Shakhparonov, M. I. Thermodynamic Properties of Water in Solutions of Electrolytes 97

Ivanov, N. A. Dissociation of Electrolytes in Nonaqueous Solutions 109

Aleksandrov, V. V., and Ye. F. Ivanova. Thermodynamic Properties of Nonaqueous Solutions of Electrolytes 118

Ivanov, N. A., V. A. Kremer, L. N. Katerina, and Ye. V. Titov. Study of the Effect of Solvents on the Strength of Acids by Means of Optical Methods 122

Kiselev, B. S. Dissociation of Acids and Complex Compounds and Methods of Studying It 126

Yatsimirskiy, K. B. Change in Thermodynamic Functions in Substitution of Association of Ions in Solutions 133

Tsvil'yev, V. P. Thermodynamics of "Aquacomplexes" 140

Lengyel, Sándor. Study of Partial Pressure of Solvent in Aqueous Solutions of Electrolytes 144

Ilyin, Shafim. Interactions of Protein With Solvents (Water, and Methyl, Ethyl and n-Propyl Alcohols) 152

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5(4)

AUTHORS: Smirnova, N. A., Morachevskiy, A. G. SOV/54-59-2-16/24

TITLE: Methods of Determining the Composition of Vapor and the Boiling Temperature of Solutions Separating Into Layers (K metodike opredeleniya sostava para i temperatury kipeniya rasslaivayushchikhsya rastvorov)

PERIODICAL: Vestnik Leningradskogo universiteta. Seriya fiziki i khimii, 1959, Nr 2, pp 106-110 (USSR)

ABSTRACT: These methods, which are much more difficult than for homogeneous solutions, have been little developed up to now. For their further development, this paper deals with the conditions for determining the composition of the vapor in the state of equilibrium and the boiling temperature. In order to investigate experimentally the equilibrium states between the vapor phase and the liquid phase, the equilibriums between the liquid phases of the boiling liquid must first of all be guaranteed, which is attained by uninterrupted stirring. Besides, the condensate of the vapor is separated on two phases which renders its separation very difficult. The devices designed for this investigation are discussed in short (Refs 1-11).

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all of which are still unsatisfactory in the opinion of the authors. A slightly changed arrangement of the device by Bushmakin (Ref 11) was used for the investigations carried out here. Its construction is shown in figure 1. The position of the three-way tap for the separation of the vapor was changed as against the device by Bushmakin. It was attached directly to the tube between the boiler and the condenser. The vapor condenses only now in a collecting device outside the device (Fig 2). An electromagnetic agitator is used for stirring. The device was heated from outside in the lower part of the boiler. The working process is described. The results of the measurements will be published in a later paper. An ebulliometer designed by Sventoslavskiy (Ref 15), together with an agitator, was used for determining the boiling temperature (Fig 3). Experimental investigations of various binary and ternary solutions were carried out with it. The authors thank Professor A. V. Storonkin for his interest in the work. There are 3 figures and 15 references, 4 of which are Soviet.

SUBMITTED: January 1, 1959

Card 2/2

APPROVED FOR RELEASE: 03/13/2001 CIA-RDP86-00513R001135120005-3"

"APPROVED FOR RELEASE: 03/13/2001 CIA-RDP86-00513R001135120005-3

5(2), 18(6) SOV/78-4-7-25/44

AUTHORS: Shoykhet, D. N., Morachevskiy, A. G., Alabyshev, A. F.

TITLE: The Melting Diagram of the System Potassium - Lead (Diagramma plavkosti sistemy kaliy - svinets)

PERIODICAL: Zhurnal neorganicheskoy khimii, 1959, Vol 4, Nr 7, pp 1616-1619 (USSR)

ABSTRACT: One of the methods of obtaining metallic potassium consists in the distillation of a potassium-lead alloy (Ref 1), which is obtained by the dectrolysis of melted potassium salts on a liquid lead cathode. The potassium-lead alloys have, however, not been fully investigated, and published data contain contradictions (Refs 2-5). This gave rise to carrying out the present investigation. The alloys were produced in cups of armco-iron in an argon atmosphere. The initially unsatisfactory mixing of the melts resulted in inhomogeneous alloys, which are probably also the cause of the contradictory data found in publications. Only after better mixing reproducible values were obtained, which are given by a table. The melting diagram is shown by a figure. It shows a maximum at 576°, which corresponds to the compound KPb, and three peritectic horizontals at

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SOV/78-4-7-29/44

The Melting Diagram of the System Potassium - Lead

372°, 336°, and 292°, which correspond to the compounds K_2Pb_5, KPb_2, and KPb_4. In the part of the system which contains more potassium, an eutectic point is found for K + KPb near 52°, and in the part which is rich in lead an eutectic Pb + KPb_4 is found at 274°. The disintegration stated to take place by D. P. Smith (Ref 2) in the interval of 36-74 at% K could not be found to occur, the compound K_2Pb assumed by Smith was not observed but is was found that the peritectic transformation corresponds to the compound K_2Pb_5 at 372°. There are 1 figure, 1 table, and 5 references, 3 of which are Soviet.

ASSOCIATION: Leningradskiy politekhnicheskiy institut im. M. I. Kalinina (Leningrad Polytechnic Institute imeni M. I. Kalinin)

SUBMITTED: April 4, 1958

Card 2/2

APPROVED FOR RELEASE: 03/13/2001 CIA-RDP86-00513R001135120005-3"

"APPROVED FOR RELEASE: 03/13/2001 CIA-RDP86-00513R001135120005-3

SMIRNOVA, N.A.; MORACHEVSKIY, A.G.

Methods for the determination of the vapor composition and boiling point of stratified solutions. Vest.LGU 14 no.10:106-110 '59. (MIRA 12:6)

(Solution (Chemistry))

APPROVED FOR RELEASE: 03/13/2001 CIA-RDP86-00513R001135120005-3"

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[illegible]

Liquid - [illegible] liquid - liquid equilibria in the system propyl alcohol - [illegible] acetate - [illegible]. Vest. LGU 1[illegible] [illegible] '5[illegible].

(MIRA 12:11)

([illegible]) (Propyl acetate) (Phase rule and equilibrium)

APPROVED FOR RELEASE: 03/13/2001 CIA-RDP86-00513R001135120005-3"

"APPROVED FOR RELEASE: 03/13/2001 CIA-RDP86-00513R001135120005-3

[illegible], I.Ye.; [illegible], A.[illegible]; [illegible], V.[illegible].

Liquid - vapor equilibrium and miscibility of the ternary mixture in the system cyclohexanone - water. Vest. LGU 14 no.22:134-139 '59. (MIRA 13:11)

(Cyclohexanone) (Phase rule and equilibrium)

APPROVED FOR RELEASE: 03/13/2001 CIA-RDP86-00513R001135120005-3"

"APPROVED FOR RELEASE: 03/13/2001 CIA-RDP86-00513R001135120005-3

5 (4)

AUTHORS: Morachevskiy, A. G., Lantratov, M. F. SOV/79-29-7-1/85

TITLE: Mixing Entnalpy in the Sodium-tin System (Ental'piya smesheniya v sisteme natriy-olovo)

PERIODICAL: Zhurnal obshchey khimii, 1959, Vol 29, Nr 7, pp 2109-2115 (USSR)

ABSTRACT: In the present paper the determination results of the electromotive forces (EMF) of the concentration chain Na/electrolyte with the ions Na^+/Na+Sn(l) are given in a wide temperature range (400-650°) as well as the concentrations of sodium in the alloy. The data obtained are utilized for the computation of the mixing enthalpy of liquid sodium- tin alloys at 600°. The experimental data mentioned in the papers of references 1-4 do not permit a computation of the mixing enthalpy within the entire range of the compounds because of the lack of reliable data on the temperature coefficient of the EMF($\frac{dE}{dT}$) within the range of the concentrations N_{Na} = 0.35-0.75. It was of interest to compute the intensity of the mixing enthalpy from the determinations of the EMF within a wide temperature range and to compare the resultant values with those obtained from

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"APPROVED FOR RELEASE: 03/13/2001 CIA-RDP86-00513R001135120005-3

publications by means of direct calorimetric measurements (Ref 5). For this purpose the EMF chains (1) were newly determined in the above temperatures range with sodium concentrations of from 0.05 to 0.85 of atomic yield. The method of determination used was described already earlier (Refs 1,3,6). Table 1 gives the EMF values of the temperature coefficient ($\frac{dE}{dT}$) as well as those of the partial molar isobaric-isothermal potentials ($\Delta \bar{Z}_{Na}$) and of the mixing enthalpy ($\Delta \bar{H}_{Na}$) of sodium at 600°. Figure 1 illustrates the temperature dependence of the EMF for alloys of various compositions and figure 2 shows the dependence of $\frac{dE}{dT}$ on the composition of the alloy. There are 4 figures, 2 tables, and 16 references, 7 of which are Soviet.

ASSOCIATION: Leningradskiy politekhnicheskiy institut i Leningradskiy elektrotekhnicheskiy institut imeni V. I. Ul'yanova (Lenina) (Leningrad Polytechnic Institute and Leningrad Institute of Electrical Engineering imeni V. I. Ul'yanov (Lenin))

SUBMITTED: June 26, 1958

APPROVED FOR RELEASE: 03/13/2001 CIA-RDP86-00513R001135120005-3"

"APPROVED FOR RELEASE: 03/13/2001 CIA-RDP86-00513R001135120005-3

AUTHORS: Morachevskiy, A.G., Rabinovich, R.Sh. SOV/80-32-2-49/56

TITLE: The Liquid-Vapor Equilibrium in the Chloroform-Ethyl Alcohol System (Ravnovesiye zhidkost' - par v sistemo khloroform - etilovyy spirt)

PERIODICAL: Zhurnal prikladnoy khimii, 1959, Vol XXXII, Nr 2, pp 458-459 (USSR)

ABSTRACT: The equilibrium of the mentioned system has been investigated under isothermal conditions in [Ref 1]. The equilibrium under isobaric conditions of 760 mm mercury column is investigated here. The chloroform used had the density d_4^{20} 1.4891, the alcohol 0.7894. At a chloroform content of 80% the boiling temperature of the solution is at a minimum. There is 1 graph, 1 table, and 2 references, 1 of which is Soviet and 1 American.

SUBMITTED: April 19, 1958

Card 1/1

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"APPROVED FOR RELEASE: 03/13/2001 CIA-RDP86-00513R001135120005-3

10(5)5(2,5) SOV/80-32-5-42/43

AUTHORS: Storonkin, A.V., Morachevskiy, A.G., Susarev, M.P., Volkind, I.Ya., Filatov, I.G.

TITLE: Bibliography (Bibliografiya)

PERIODICAL: Zhurnal prikladnoy khimii, 1959, Vol XXXII, Nr 5, pp 694-699 (USSR)

ABSTRACT: The article contains the review of 5 books, one of which is a translation from English. The two Soviet books are: "Reference Book for the Equilibrium Between Liquid and Vapor" and "Plastics and Their Inflammability".

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"APPROVED FOR RELEASE: 03/13/2001 CIA-RDP86-00513R001135120005-3

05837
SOV/76-55-10-55/45

5(4)

AUTHORS: Lantratov, M. F., Morachevskiy, A. G.

TITLE: On the Use of Glass as an Electrolyte in Investigations of the Thermodynamic Properties of Sodium Alloys

PERIODICAL: Zhurnal fizicheskoy khimii, 1959, Vol 33, Nr 10, pp 2339 - 2344 (USSR)

ABSTRACT: Investigation of the thermodynamic properties of metallic systems by measuring the electromotive force encounters some difficulties when using melted salts of these metals so that preferable use is made of solid electrolytes. The following authors have worked in this field: Wachter (Ref 8), Trampler (Ref 9), Hauffe (Ref 5), Kubaschewski and Hugler (Ref 7), Wagner and Engelhardt (Ref 5), Vierk (Ref 17), Porter and Feinleib (Ref 18), A. F. Alabyshev and A. G. Morachevskiy (Ref 15), Frauenschill and Halla (Ref 12), as well as Halla and Hardy (Ref 13). The applicability of the following kinds of glass as electrolytes in investigations of sodium alloys was checked here: Nr 23, Nr 29, Nr 46, ZS-8, ZS-5K, and glass containing boron and sodium (Refs 19,20) (Table 1: composition of these kinds of glass). The electromotive force of the cells sodium|glass|sodium alloy and Na|glass|melted elec-

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05837

On the Use of Glass as an Electrolyte in Investigations of the Thermodynamic Properties of Sodium Alloys SOV/76-33-10-35/45

trolyte with sodium ions|glass|sodium alloy was measured at 400-550° by means of a PPTV-1 potentiometer and a mirror galvanometer. It was found that the electromotive force did not depend on the kind of glass used (Tables 2-3) and the two afore-mentioned cells are equivalent in accordance with the theoretical conditions established by Haber (Ref 21), Truempler (Ref 9), Truempler and Schuler (Ref 22). There are 3 figures, 3 tables, and 25 references, 7 of which are Soviet.

ASSOCIATION: Leningradskiy elektrotekhnicheskiy institut im. V. I. Ul'yanova (Lenina) (Leningrad Institute of Electrical Engineering imeni V. I. Ul'yanov (Lenin)). Leningradskiy politekhnicheskiy institut im. M. I. Kalinina (Leningrad Polytechnic Institute imeni M. I. Kalinin)

SUBMITTED: April 2, 1958

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APPROVED FOR RELEASE: 03/13/2001 CIA-RDP86-00513R001135120005-3"

"APPROVED FOR RELEASE: 03/13/2001 CIA-RDP86-00513R001135120005-3

MORACHEVSKIY, A.G.; CHEREPANOVA, Ye.A.; ALABYSHEV, A.F.

Sodium diffusion in liquid lead. Izv. vys. ucheb. zav.; tsvet. met. 3 no.3:70-73 '60. (MIRA 14:3)

1. Leningradskiy politekhnicheskiy institut, Kafedra obshchey khimii.
(Sodium) (Diffusion) (Lead alloys)

APPROVED FOR RELEASE: 03/13/2001 CIA-RDP86-00513R001135120005-3"

"APPROVED FOR RELEASE: 03/13/2001 CIA-RDP86-00513R001135120005-3

S/155/60/003/004/017/040/XX
B020/B054

AUTHORS: Alabyshev, A. F., Lantratov, M. F., Morachevskiy, A. G.

TITLE: Electromotive Force of the Chemical Chain Pb | $PbCl_2$ | Cl_2

PERIODICAL: Izvestiya vysshikh uchebnykh zavedeniy. Khimiya i khimicheskaya tekhnologiya, 1960, Vol. 3, No. 4, pp. 649 - 652

TEXT: The authors attempted to interpret the principal causes of the divergence of experimental results, and their deviation from results obtained on the basis of thermodynamic calculations. These problems are studied by the example of emf of the chain mentioned in the title. A table lists experimental data obtained by various authors who studied this chain, as well as theoretical values of emf of this chain calculated from thermodynamic data (Ref.15). A figure illustrates the deviation of experimental results found by various authors from thermodynamically calculated values. Measurement results of emf of the chain mentioned in the title show that the change of emf with temperature is almost linear. Emf values nearest to the thermodynamically calculated values

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Electromotive Force of the Chemical Chain $Pb | PbCl_2 | Cl_2$ S/153/60/003/004/017/040/XX B020/B054

were obtained in investigations in which the chlorine electrode was obtained by saturation of a graphite electrode with chlorine gas, as well as in those in which the electrode spaces were separated from each other. The space around the chlorine electrode must be saturated with chlorine, and the space around the lead electrode with lead. A penetration of lead into the zone of the chlorine electrode should be avoided to exclude reactions leading to depolarization. The preliminary treatment of the graphite rods used to manufacture the chlorine electrode is very important; this treatment consists in a prolonged chlorination at high temperatures. The purity of the graphite used is also important. B. P. Artamonov (Ref.9) is mentioned. There are 1 figure, 1 table, and 18 references: 9 Soviet, 2 US, 6 German, and 1 British.

ASSOCIATION: Leningradskiy politekhnicheskiy institut im. M.I. Kalinina, kafedra obshchey khimii (Leningrad Polytechnic Institute, Department of General Chemistry)

SUBMITTED: December 8, 1958

Card 2/2

APPROVED FOR RELEASE: 03/13/2001 CIA-RDP86-00513R001135120005-3"

"APPROVED FOR RELEASE: 03/13/2001 CIA-RDP86-00513R001135120005-3

85456

S/149/60/000/005/008/015
A006/A001

11.4150

AUTHORS: Morachevskiy, A.G., Alabyshev, A.F.

TITLE: On the Activity of Sodium in Liquid Alloys With Thallium

PERIODICAL: Izvestiya vysshikh uchebnykh zavedeniy, Tsvetnaya metallurgiya, 1960, No. 5, pp. 105-107

TEXT: The activity of sodium in alloys with thallium was calculated from measurements of emf in the circuit: Na (electrolyte with Na^+ ions) Na + Tl alloy. The Gibbs-Duhem equation in its form recommended by Wagner (Ref. 7) was used to calculate the activity of Tl and the integral molar excess isobar potential. Thermodynamical properties of the Na-Tl system were studied by a method described in Reference 3 at 400°C. The composition of the alloys varied from N_{Na} = 0.92 to N_{Na} = 0.08; N_{Na} is the atomic portion of sodium in the alloy; "No. 23" glass containing 9.42% Na_2O was used as an electrolyte. The measurements were made in argon atmosphere and high-purity sodium and thallium were used. The experiments showed considerable negative deviations of the Na-Tl system from the Raoult's law, due to the presence of atom groupings in the liquid system corresponding to a metallic compound. The fusibility curve of the system is compared to the curve

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A006/A001

On the Activity of Sodium in Liquid Alloys With Thallium

of integral molar excess isobar potential (Figure 2). The extremum of the integral curve Δz^x corresponds to the composition of the congruently melting NaTl compound. In general the extremum of the Δz^x curve corresponds to the composition of the strongest compound in the system. If a series of congruently melting compounds with relatively close melting points are formed, then the extremum occupies an intermediate position between the compositions of these compounds.

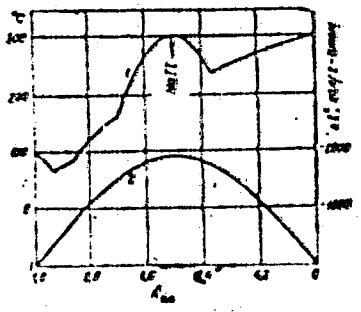

Figure 2

Fusibility curve of the Na-Tl system (1) and the integral molar excess isobar potential of the system (2).

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A006/A001

On the Activity of Sodium in Liquid Alloys With Thallium

There are 1 table, 2 figures and 11 references: 1 English, 3 German and 7 Soviet.

ASSOCIATIONS: Leningradskiy politekhnicheskiy institut (Leningrad Polytechnic Institute) Kafedra obshchey khimii (Department of General Chemistry)

SUBMITTED: November 20, 1959

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Card 3/3

APPROVED FOR RELEASE: 03/13/2001 CIA-RDP86-00513R001135120005-3"

"APPROVED FOR RELEASE: 03/13/2001 CIA-RDP86-00513R001135120005-3

SMIRNOVA, N.A.; MORACHEVSKIY, A.G.; STOROMKIN, A.V.

Effect of temperature and pressure changes on the composition of ternary heteroazeotropes. Vest.LGU 15 no.10:72-79 '60. (MIRA 13:5)

(Thermodynamics) (Azeotropes)

APPROVED FOR RELEASE: 03/13/2001 CIA-RDP86-00513R001135120005-3"

"APPROVED FOR RELEASE: 03/13/2001 CIA-RDP86-00513R001135120005-3

MORACHEVSKIY, A.G.

Survey of studies in the field of the electrochemistry of fused salts in 1959. Zhur. prikl. khim. 33 no.6:1434-1448 Je '60. (MIRA 13:8)

(Bibliography--Salts)
(Bibliography--Electrochemistry)

APPROVED FOR RELEASE: 03/13/2001 CIA-RDP86-00513R001135120005-3"

"APPROVED FOR RELEASE: 03/13/2001 CIA-RDP86-00513R001135120005-3

S/080/60/033/008/006/013
A003/A001

AUTHORS: Morachevskiy, A.G., Sabinin, V.Ye.

TITLE: The Solubility Diagrams for the Ternary Systems Caprolactam-Water-Benzene, Caprolactam-Water-Carbon Tetrachloride and Caprolactam-Water-Dichlorethane

PERIODICAL: Zhurnal prikladnoy khimii, 1960, Vol. 33, No. 8, pp. 1775-1779

TEXT: Recently the industrial importance of ε-caprolactam (lactam of the ε-amino-capronic acid) increased considerably. The solubility of three ternary systems including caprolactam, water and an organic solvent was studied. In the experiments commercial caprolactam was used which was purified by an additional distillation under vacuum. Its melting point was 68.1°C. The purity of the other reagents was checked by measuring the refractive index and the density. The experimental results are given in Tables 1 - 6. These data are sufficient for the exact plotting of the lamination curves excepted the region near the critical solubility point. The solubility diagrams plotted on the experimental data are given in Figures 1-3. The system caprolactam-water-dichlorethane was investigated earlier by Kudryavtseva and Krutikova (Ref. 1). Their data differ from those

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S/080/60/033/008/006/013
A003/A001

The Solubility Diagrams for the Ternary Systems Caprolactam-Water-Benzene, Caprolactam-Water-Carbon Tetrachloride and Caprolactam-Water-Dichloroethane

obtained by the authors due to the application of a simplified method. There are 6 tables, 3 figures and 1 Soviet reference.

ASSOCIATION: Leningradskiy gosudarstvennyy universitet imeni A.A. Zhdanova (Leningrad State University imeni A.A. Zhdanov)

SUBMITTED: March 1, 1960

Card 2/2

APPROVED FOR RELEASE: 03/13/2001 CIA-RDP86-00513R001135120005-3"

"APPROVED FOR RELEASE: 03/13/2001 CIA-RDP86-00513R001135120005-3

ARISTOVICH, V.Yu.; LUTUGINA, N.V.; MALENKO, Yu.I.; MORACHEVSKIY, A.G.

Liquid - vapor equilibria and rectification processes in the ternary system water - formic acid - acetic acid. Zhur. prikl. khim. 33 no.12:2693-2698 D '60. (MIRA 14:1)

1. Leningradskiy gosudarstvennyy universitet.
(Formic acid) (Acetic acid)

APPROVED FOR RELEASE: 03/13/2001 CIA-RDP86-00513R001135120005-3"

"APPROVED FOR RELEASE: 03/13/2001 CIA-RDP86-00513R001135120005-3

SMIRNOVA, N.A.; MORACHEVSKIY, A.G.

Liquid - vapor equilibrium and miscibility of the components in the system propyl acetate - water. Zhur. fiz. khim. 34 no. 11:2546-2553 N '60. (MIRA 14:1)

1. Leningradskiy gosudarstvennyy universitet im. A.A. Zhdanova.
(Acetic acid) (Phase rule and equilibrium)

APPROVED FOR RELEASE: 03/13/2001 CIA-RDP86-00513R001135120005-3"

"APPROVED FOR RELEASE: 03/13/2001 CIA-RDP86-00513R001135120005-3

BELOUSOV, V.P.; ZHIGUNOV, I.S.; MORACHEVSKIY, A.G.

Heats of mixing of liquids. Part 2: Heats of mixing in binary systems n-propyl alcohol - n-propyl acetate, n-propyl acetate - water, and cyclohexane - methanol. Vest LGU 16 no.22:111-115 '61. (MIRA 14:11)

(Systems (Chemistry)) (Heat of mixing)

APPROVED FOR RELEASE: 03/13/2001 CIA-RDP86-00513R001135120005-3"

"APPROVED FOR RELEASE: 03/13/2001 CIA-RDP86-00513R001135120005-3

MORACHEVSKIY, A.G.; KOLBINA, V.N.

Shift in the composition of azeotropes with temperature and pressure changes in binary systems toluene-saturated alcohols. Zhur.fiz.khim. 35 no.8:1694-1698 Ag '61. (MIRA 14:8)

1. Leningradskiy gosudarstvennyy universitet imeni A.A. Zhdanova.

(Toluene) (Alcohols)

APPROVED FOR RELEASE: 03/13/2001 CIA-RDP86-00513R001135120005-3"

"APPROVED FOR RELEASE: 03/13/2001 CIA-RDP86-00513R001135120005-3

MORACHEVSKIY, A.G.; CHEN CHZHIN-TSIN (Leningrad)

Liquid-vapor equilibrium in the ternary system Benzene - cyclohexane - n-propyl alcohol and the thermodynamic verification of the data. Zhur.fiz.khim. 35 no.10:2335-2340 O '61. (MIRA 14:11)

1. Leningradskiy gosudarstvennyy universitet imeni Zhdanova.
(Benzene) (Cyclohexane) (Propyl alcohol)

APPROVED FOR RELEASE: 03/13/2001 CIA-RDP86-00513R001135120005-3"

"APPROVED FOR RELEASE: 03/13/2001 CIA-RDP86-00513R001135120005-3

ARISTOVICH, V.IU.; LEVIN, A.I.; MORACHEVSKIY, A.G.

Liquid - vapor equilibrium in the systems consisting of low molecular weight acids of the aliphatic series and water. Trudy VNIInefteKhim no.5:84-101 '62. (MIRA 15:7)
(Acids, Fatty)
(Phase rule and equilibrium)

APPROVED FOR RELEASE: 03/13/2001 CIA-RDP86-00513R001135120005-3"

"APPROVED FOR RELEASE: 03/13/2001 CIA-RDP86-00513R001135120005-3

BELOUSOV, V.P.; MORACHEVSKIY, A.G.; STORONKIN, A.V.

Heat of mixing liquids. Part 3: Heat of mixing for ternary systems. Experimental study of heats of mixing in the ternary system n-proply alcohol - n-proply acetate - water. Vest. LGU 17 no.4:96-105 '62. (MIRA 15:3)

(Proply alcohol)(Acetic acid)(Heat of mixing)

APPROVED FOR RELEASE: 03/13/2001 CIA-RDP86-00513R001135120005-3"

"APPROVED FOR RELEASE: 03/13/2001 CIA-RDP86-00513R001135120005-3

LANTRATOV, M. F., kand. khimicheskikh nauk, dotsent; MORACHEVSKIY, A. G., kand. tekhn. nauk

Electrochemical studies of the thermodynamic properties of liquid ternary metal systems. Izv. LETI 59 no.46:228-264 '62. (MIRA 15:10)

(Alloys) (Systems(Chemistry))

APPROVED FOR RELEASE: 03/13/2001 CIA-RDP86-00513R001135120005-3"

"APPROVED FOR RELEASE: 03/13/2001 CIA-RDP86-00513R001135120005-3

Investigation of the system germanium-sulfur and germanium-selenium.
A. S. Pashinkin, Lyu-Tsun'-Khua, A. V. Novoselova (10 minutes).

(Not presented).

Thermodynamic investigation of alloys of the system gallium-antimony.
L. N. Gerasimenko, N. A. Goryunova, I. V. Kirichenko, L. N. Lozhkin, A. G. Morachevskiy (10 minutes).

Report presented at the 3rd National Conference on Semiconductor Compounds, Kishinev, 16-21 Sept 1963

APPROVED FOR RELEASE: 03/13/2001 CIA-RDP86-00513R001135120005-3"

"APPROVED FOR RELEASE: 03/13/2001 CIA-RDP86-00513R001135120005-3

MORACHEVSKIY, A.G.

Calculating the activity coefficients of components in liquid alloys of the ternary system sodium - potassium - lead. Zhur.prikl.khim. 36 no.2:329-333 F '63. (MIRA 16:3)
(Sodium-potassium-lead alloys)

APPROVED FOR RELEASE: 03/13/2001 CIA-RDP86-00513R001135120005-3"

"APPROVED FOR RELEASE: 03/13/2001 CIA-RDP86-00513R001135120005-3

LANTRATOV, M.F.; MORACHEVSKIY, A.G.; ANTONOVA, M.I.

Thermodynamic properties of liquid alloys of the Na - Zn system.
Zhur.prikl.khim. 36 no.6:1278-1283 Je '63. (MIRA 16:8)
(Zinc-sodium alloys—Thermodynamic properties)

APPROVED FOR RELEASE: 03/13/2001 CIA-RDP86-00513R001135120005-3"

"APPROVED FOR RELEASE: 03/13/2001 CIA-RDP86-00513R001135120005-3

MORACHEVSKIY, A.G.

Methods of the experimental investigation of equilibrium between liquid and vapor in ternary systems. Zhur.prikl.khim. 36 no.6: 1353-1354 Je '63. (MIRA 16:8)
(Systems (Chemistry)) (Phase rule and equilibrium)

APPROVED FOR RELEASE: 03/13/2001 CIA-RDP86-00513R001135120005-3"

"APPROVED FOR RELEASE: 03/13/2001 CIA-RDP86-00513R001135120005-3

STORONKIN, A.V.; MORACHEVSKIY, A.G.; SMIRNOVA, N.A.

Certain problems of the thermodynamics of multicomponent heterogeneous systems. Part 5: Effect of temperature and pressure on the equilibrium of demixing solutions and vapor. Zhur. fiz. khim. 37 no.6:1213-1218 Je '63. (MIRA 16:7)

1. Leningradskiy gosudarstvennyy universitet.
(Systems (Chemistry))
(Phase rule and equilibrium)

APPROVED FOR RELEASE: 03/13/2001 CIA-RDP86-00513R001135120005-3"

"APPROVED FOR RELEASE: 03/13/2001 CIA-RDP86-00513R001135120005-3

SMIRNOVA, N.A.; MORACHEVSKIY, A.G.; STORONKIN, A.V.

Liquid - vapor and liquid - liquid - vapor equilibria in the system n-propyl alcohol - n-propyl acetate - water. Vest. LGU 18 no.22:97-104 '63. (MIRA 17:1)

APPROVED FOR RELEASE: 03/13/2001 CIA-RDP86-00513R001135120005-3"

"APPROVED FOR RELEASE: 03/13/2001 CIA-RDP86-00513R001135120005-3

ZHAROV, V.T.; MORACHEVSKIY, A.G.

Thermodynamic method of control of experimental data on liquid - vapor equilibrium. Zhur. prikl. khim. 36 no.10: 2232-2238 O '63. (MIRA 17:1)

1. Leningradskiy gosudarstvennyy universitet imeni Zhdanova.

APPROVED FOR RELEASE: 03/13/2001 CIA-RDP86-00513R001135120005-3"

"APPROVED FOR RELEASE: 03/13/2001 CIA-RDP86-00513R001135120005-3

SMIRNOVA, N.A.; MORACHEVSKIY, A.G.

Phase equilibria in the system n-butyl alcohol - dibutyl ether - water. Zhur. prikl. khim. 36 no.11:2391-2397 N '63. (MIRA 17:1)

APPROVED FOR RELEASE: 03/13/2001 CIA-RDP86-00513R001135120005-3"

"APPROVED FOR RELEASE: 03/13/2001 CIA-RDP86-00513R001135120005-3

ZHAROV, V.T.; MORACHEVSKIY, A.G.

Liquid - vapor equilibrium in the system ethyl alcohol - benzene and the thermodynamic checking of the data. Zhur. prikl. khim. 36 no.11:2397-2402 N '63. (MIRA 17:1)

1. Leningradskiy gosudarstvennyy universitet.

APPROVED FOR RELEASE: 03/13/2001 CIA-RDP86-00513R001135120005-3"

"APPROVED FOR RELEASE: 03/13/2001 CIA-RDP86-00513R001135120005-3

MORACHEVSKIY, A.G.; ZHAROV, V.T.

Liquid - vapor equilibrium in the ternary system benzene-cyclohexane - ethyl alcohol. Zhur. prikl. khim. 36 no.12: 2771-2773 D'63. (MIRA 17:2)

APPROVED FOR RELEASE: 03/13/2001 CIA-RDP86-00513R001135120005-3"

"APPROVED FOR RELEASE: 03/13/2001 CIA-RDP86-00513R001135120005-3

BELOUSOV, V.P.; MORACHEVSKIY, A.G.

Thermodynamic properties of the binary system n-propyl alcohol - water. Zhur. fiz. khim. 38 no.1:184-189 Ja'64. (MIRA 17:2)

1. Leningradskiy gosudarstvennyy universitet imeni Zhdanova.

APPROVED FOR RELEASE: 03/13/2001 CIA-RDP86-00513R001135120005-3"

"APPROVED FOR RELEASE: 03/13/2001 CIA-RDP86-00513R001135120005-3

[illegible]

[illegible] L. N.; [illegible] L. N.; Morschevskiy, A. G.

[illegible] of the thermodynamic [illegible] gallium antimonide by the elec-
[illegible] method

Thermal prikladnoy khimii, [illegible] gallium

gallium antimonide

[illegible] the temperature depend[illegible] the system:
[illegible]

[illegible] the gallium
[illegible]

[illegible]

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"APPROVED FOR RELEASE: 03/13/2001 CIA-RDP86-00513R001135120005-3

ACCESSION NR: AP5005573

motive force or calorimetric measurements. Orig. art. has: 4 formulas and 1 table.

ASSOCIATION: Leningradskiy politekhnicheskiy institut imeni M. I. Kalinina (Leningrad polytechnic institute)

SUBMITTED: 17Jul64 ENCL: 00 SUB CODE: IC, TD

NO REF SOV: 004 OTHER: 003

APPROVED FOR RELEASE: 03/13/2001 CIA-RDP86-00513R001135120005-3"

"APPROVED FOR RELEASE: 03/13/2001 CIA-RDP86-00513R001135120005-3

ALTSYBEYEVA, A.I.; BELOUSOV, V.P.; OVTRAKHT, N.V.; MURACHEVSKIY, A.G.

Phase equilibria and thermodynamic properties of the system sec-butyl alcohol - water. Zhur. fiz. khim. 38 no.5:1242-1247 My '64. (MIRA 18:12)

1. Leningradskiy gosudarstvennyy universitet imeni Zhdanova. Submitted July 6, 1963.

APPROVED FOR RELEASE: 03/13/2001 CIA-RDP86-00513R001135120005-3"

"APPROVED FOR RELEASE: 03/13/2001 CIA-RDP86-00513R001135120005-3

ALTSYBEYEVA, A.I.; MORACHEVSKIY, A.G.

Phase equilibria and thermodynamic properties of the system methyl ethyl ketone - water. Zhur. fiz. khim. 38 no.6:1569-1573 Je '64.

Phase equilibria in the ternary system sec-butyl alcohol - methyl ethyl ketone - water. Ibid.:1574-1579

(MIRA 18:3)

1. Leningradskiy gosudarstvennyy universitet imeni Zhdanova.

APPROVED FOR RELEASE: 03/13/2001 CIA-RDP86-00513R001135120005-3"

"APPROVED FOR RELEASE: 03/13/2001 CIA-RDP86-00513R001135120005-3

AFRIKOVA, N.A., nauchn. sotr.; BEL'CHENKO, G.V., kand. tekhn. nauk; BERENBLIT, V.V., nauchn.sotr.; VASIL'YEV, V.P., kand.khim. nauk; DOMYCHIN, D.P., doktor khim. nauk; IOFFE, B.V., dokt. khim.nauk; KAMINSKIY, Yu.L., nauchn.sotr.; KARPOVA, I.F., kand. khim. nauk; KOPYLEV, B.A., doktor khim. nauk; LUTUGINA, N.V., kand. khim. nauk; MATEROVA, Ye.A., kand. khim. nauk; MORACHEVSKIY, Al.G., kand. khim. nauk; MORACHEVSKIY, An.G., kand. khim. nauk; NIKEROV, A.E., kand. khim. nauk; PAL'M, V.A., kand. khim. nauk; RABINOVICH, V.A., kand. khim. nauk; SOKOLOV, P.N., kand. khim. nauk; FRIDRIKHSBERG, D.A., kand. khim. nauk; TSYGIR, Ye.N., nauchn. sotr.; SHAGITSULTANOVA, G.A., kand. khim. nauk; SHKODIN, A.M., doktor khim. nauk; YATSIMIRSKIY, K.B.; GRIGOROV, O.N., doktor khim. nauk, red.; ZASLAVSKIY, A.I., kand. khim. nauk, red.; MORACHEVSKIY, Yu.V., prof., red.; RACHINSKIY, F.Yu., kand. khim. nauk, red.; POZIN, M.Ye., doktor tekhn. nauk, red.; PORAY-KOSHITS, B.A., doktor khim. nauk, red.; PROTASOV, A.M., kand. fiz.-mat. nauk, red.; ROMANKOV, P.G., red.

[Handbook for the chemist] Spravochnik khimika, 2. izd., perer. i dop. Moskva, Khimiia. Vol.3. 1964. 1004 p. (MIRA 18:1)

1. Chlen-korrespondent AN SSSR (for Romankov). 2. Deystvitel'nyy chlen AN Ukr.SSR (for Yatsimirskiy).

APPROVED FOR RELEASE: 03/13/2001 CIA-RDP86-00513R001135120005-3"

"APPROVED FOR RELEASE: 03/13/2001 CIA-RDP86-00513R001135120005-3

ALAHTSHEV, Aleksandr Filosofovich, doktor tekhn. nauk, prof.;
LANTRATOV, Mikhail Fedorovich, kand. khim. nauk;
MORACHEVSKIY, Andrey Georgiyevich, kand. tekhn. nauk;
~~ZASLAVSKAYA, M.I., red.~~

[Reference electrodes for fused salts] Elektrody sravneniia dlia rasplavlennykh solei. Moskva, Metallurgiia, 1965. 129 p. (MIRA 18:3)

APPROVED FOR RELEASE: 03/13/2001 CIA-RDP86-00513R001135120005-3"

"APPROVED FOR RELEASE: 03/13/2001 CIA-RDP86-00513R001135120005-3

ACC NR: AT5024975 (N) SOURCE CODE: UR/0000/65/000/000/0224/0226

AUTHOR: Chudakov, I. P.; Korachevskiy, A. G.

ORG: All-Union Aluminum-Magnesium Institute (Vsesoyuznyy alyuminiyevo-magniyevyy institut)

TITLE: Electrolyte composition and current efficiency during the deposition of sodium at a liquid lead cathode

SOURCE: AN SSSR. Otdeleniye obshchey i tekhnicheskoy khimii. Zashchitnyye metallicheskiye i oksidnyye pokrytiya, korroziya metallov ' issledovaniya v oblasti elektrokhimii (Protective metallic and oxide coatings, corrosion of metals, and studies in electrochemistry). Moscow, Nauka, 1965, 224-226

TOPIC TAGS: sodium fluoride, sodium chloride, lead alloy, sodium alloy, electrolysis, electrodeposition

ABSTRACT: The purpose of the study was to select the optimum electrolyte composition and experimentally determine the influence of various factors on the current efficiency during the deposition of sodium at a liquid lead cathode. Preliminary experiments showed that the electrolysis of pure NaCl is unstable and associated with anodic effects when D_a is only 1.2 A/cm^2 (the working anodic density was 1.5 A/cm^2), but that the addition of NaF stabilizes the anodic process. At a 2-3% NaF content of the melt and a cathodic current density of only 0.5 A/cm^2, an average current efficiency of up to 84% can be achieved, and no anodic effects take place. An electrolyte containing 97% NaCl and 3% NaF was therefore used in subsequent experiments. An increase in

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"APPROVED FOR RELEASE: 03/13/2001 CIA-RDP86-00513R001135120005-3

ACC NR: AT6024975

cathodic current density from 0.5 to 2.0 A/cm^2 raised the average current efficiency from 81.0 to 90.2%. The electrolysis can be carried out at 820-830° at 2.0 A/cm^2 with a current efficiency of 90-94%; thus, alloys containing up to 5 wt. % Na are obtained at the lead cathode. A further increase in the sodium content of the alloy decreases the current efficiency. The latter is improved by stirring the cathodic alloy at 20 rpm. Orig. art. has: 4 figures and 1 table.

SUB CODE: 11,13/ SUBM DATE: 05Feb64/ ORIG REF: 002/ OTH REF: 003

Card 2/2 blg

APPROVED FOR RELEASE: 03/13/2001 CIA-RDP86-00513R001135120005-3"

"APPROVED FOR RELEASE: 03/13/2001 CIA-RDP86-00513R001135120005-3

MORACHEVSKIY, A.G.; SMIRNOVA, N.A.; LYZLOVA, R.V.

Phase equilibria in the ternary systems isobutyraldehyde - isobutyl alcohol - water and isovaleraldehyde - isobutyl alcohol - water. Zhur.prikl.khim. 38 no.6:1262-1267 Je '65.

(MIRA 18:10)

1. Leningradskiy gosudarstvennyy universitet imeni A.A.Zhdanova.

APPROVED FOR RELEASE: 03/13/2001 CIA-RDP86-00513R001135120005-3"

"APPROVED FOR RELEASE: 03/13/2001 CIA-RDP86-00513R001135120005-3

MORACHEVSKIY, A.G.; RABINOVICH, R.Sh.

Mutual solubility of components and liquid - liquid - vapor equilibrium in the ternary system nitrocyclohexane - cyclohexanone - water. Zhur. prikl. khim. 38 no.7:1621-1623 Jl '65. (MIRA 18:7)

1. Leningradskiy gosudarstvennyy universitet imeni Zhdanova.

APPROVED FOR RELEASE: 03/13/2001 CIA-RDP86-00513R001135120005-3"

"APPROVED FOR RELEASE: 03/13/2001 CIA-RDP86-00513R001135120005-3

L 11147-66 EWT(m)/EWA(d)/EWT(t)/EWP(z)/EWP(b) WW/JD

ACC NR: AP6000690 SOURCE CODE: UR/0080/65/038/009/2105/2107

AUTHOR: Adayev, Ye. I.; Morachevskiy, A. G.

ORG: None

TITLE: Solubility of sodium in molten sodium chloride

SOURCE: Zhurnal prikladnoy khimii, v. 38, no. 9, 1965, 2105-2107

TOPIC TAGS: sodium, sodium chloride, solubility, phase diagram sodium base alloy, lead containing alloy

ABSTRACT: The article gives the results of an investigation of the solubility of sodium and of an alloy of sodium and lead in a melt of sodium chloride at 810-900°. The apparatus (shown in article) consisted of a vessel, an agitator, and a central tube for sample withdrawal, all made of 1Kh18N9T steel. After introduction of the sodium or the sodium-lead alloy into the sodium chloride melt and establishment of the required initial temperature (810-830°), the melt was agitated for 30 minutes and then held at constant temperature for 2 to 3 hours to assure more complete separation of the salt and metallic phases. Samples were then withdrawn for analysis by conventional methods. A table shows average results of the determination of the equilibrium concentration of

Card 1/2 UDC: 541.8+546.33+546.33'131

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"APPROVED FOR RELEASE: 03/13/2001 CIA-RDP86-00513R001135120005-3

L 11147-66

ACC NR: AP6000690

sodium in the salt phase. The maximum deviation from the average value did not exceed 8%. Dependence of this equilibrium concentration of sodium in the salt phase, for pure sodium and for a sodium-lead alloy, is shown in a figure. It is established that the equilibrium concentration of sodium in the salt phase decreases with dilution of the metallic phase with lead. Orig. art. has: 2 figures and 1 table.

SUB CODE: 07/ SUBM DATE: 30Jul64/ ORIG REF: 005/ OTH REF: 004

Card 2/2

APPROVED FOR RELEASE: 03/13/2001 CIA-RDP86-00513R001135120005-3"

"APPROVED FOR RELEASE: 03/13/2001 CIA-RDP86-00513R001135120005-3

ZHAROV, V.T.; MALEGINA, N.D.; MORACHEVSKIY, A.G.

Liquid - vapor equilibrium in the ternary system methyl ethyl ketone - benzene - isopropyl alcohol. Zhur.prikl.khim. 38 no.9:2132-2134 S '65. (MIRA 18:11)

APPROVED FOR RELEASE: 03/13/2001 CIA-RDP86-00513R001135120005-3"

"APPROVED FOR RELEASE: 03/13/2001 CIA-RDP86-00513R001135120005-3

BELOUSOV, V.P.; KOMAROV, Ye.V.; MONASHEVSKIY, A.C.

Thermodynamic properties of the system n-propyl alcohol - n-propyl acetate. Zhur.fiz.khim. 34 no.12:2499-2502 D '60. (MIRA 18:12)

1. Leningradskiy gosudarstvennyy universitet imeni Zhdanova. Submitted July 24, 1960.

APPROVED FOR RELEASE: 03/13/2001 CIA-RDP86-00513R001135120005-3"

"APPROVED FOR RELEASE: 03/13/2001 CIA-RDP86-00513R001135120005-3

BELOUSOV, V.P.; MORACHEVSKIY, A.G.

Thermodynamic properties of the system n-propyl acetate - water. Zhur.fiz.khim. 39 no.11:2701-2703 N '65. (MIRA 18:12)

1. Leningradskiy gosudarstvennyy universitet imeni A.A.Zhdanova.

APPROVED FOR RELEASE: 03/13/2001 CIA-RDP86-00513R001135120005-3"

"APPROVED FOR RELEASE: 03/13/2001 CIA-RDP86-00513R001135120005-3

L 29241-66 EWT(m)/EWP(t)/ETI IJP(c) WW/JW/JD/JG

ACC NR: AP6019357 SOURCE CODE: UR/0149/66/000/001/0046/0048

AUTHOR: Gerasimenko, L. N.; Zaytsev, V. A.; Lozhkin, L. N.; Morachevskiy, A. G. 56 B

ORG: Department of Theoretical Fundamentals of Metallurgy, Leningrad Polytechnic Institute (Kafedra teoreticheskikh osnov metallurgii, Leningradskiy politekhnicheskiy institut)

TITLE: Thermodynamic properties of liquid alloys in the zinc-gallium system

SOURCE: IVUZ. Tsvetnaya metallurgiya, no. 1, 1966, 46-48

TOPIC TAGS: liquid metal, zinc alloy, gallium alloy, thermodynamics

ABSTRACT: The thermodynamic properties of the liquid alloys of the zinc-gallium system was studied by measuring the electromotive forces (emf) of the concentration bonds:

$$-Zn|\ (LiCl-KCl-NaCl)_{eut} + (1\ wt\ \%\ ZnCl_2)\ |\ Zn(N_{Zn}) + Ga(N_{Ga}) +.$$

The emf was measured in the 450-550° range in many compositions ($N_{Zn} = 0.1 - 0.9$). The emf values served to determine the partial molar thermodynamic characteristics of zinc. The corresponding integral values for the Zn-Ga system were calculated with the Gibbs-Duhem equation.

Card 1/2 UDC: 669.55+669.87

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"APPROVED FOR RELEASE: 03/13/2001 CIA-RDP86-00513R001135120005-3

L 29241-66

ACC NR: AP6019357

Times of the individual tests amounted to 22-24 hours. In the Zn-rich system (N_{Zn} >0.6) the emf was reproduced with an accuracy of plus or minus 0.2 MV at a given temperature. Increased Ga content in the alloys lower the relative error value in determining emf value. Results of emf measurements and the calculated thermodynamic characteristics of the system are presented. Calculated values of heat of mixing are in satisfactory agreement with data derived from direct calorimetric measurements. Orig. art. has: 3 figures and 1 table. [JPRS]

SUB CODE: 11, 20 / SUBM DATE: 14Jul64 / ORIG REF: 001 / OTH REF: 003

Card 2/2

APPROVED FOR RELEASE: 03/13/2001 CIA-RDP86-00513R001135120005-3"

"APPROVED FOR RELEASE: 03/13/2001 CIA-RDP86-00513R001135120005-3

L 40234-66 EWT(m)/EWP(w)/T/EWP(t)/ETI IJP(c) JD/WW/JG

ACC NR: AP6019640 SOURCE CODE: UR/0149/66/000/003/0043/0045

67

AUTHOR: Gerasimenko, L. N.; Zaytsev, V. A.; Lozhkin, L. N.; Morachevskiy, A. G. B

ORG: Department of Theoretical Principles of Metallurgy, Leningrad Polytechnic Institute (Leningradskiy politekhnicheskiy institut. Kafedra teoreticheskikh osnov metallurgii)

TITLE: Thermodynamic properties of liquid alloys of the zinc-antimony system

SOURCE: IVUZ. Tsvetnaya metallurgiya, no 3, 1966, 43-45

TOPIC TAGS: zinc alloy, antimony alloy, alloy system, thermodynamic property, liquid metal

ABSTRACT: The thermodynamic properties of liquid alloys of the Zn-Sb system were investigated by the electromotive force (emf) method. Measurements were made in the temperature range 600—750C with N_{Zn} ranging from 0.1 to 0.9. From the emf values the partial molar thermodynamic characteristics of zinc were determined and the integral values of the change of the thermal potential, enthalpy, and entropy, upon the formation of one gram-atom of alloy from pure components in a liquid state were calculated by the Gibbs-Duhem equation. The investigation revealed that a complex S-shaped dependence of the excess partial entropy of zinc on the composition, which is characteristic for systems with a strong inner action between components in a liquid state, is observed for the system Zn-Sb and that the ZnSb com-

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"APPROVED FOR RELEASE: 03/13/2001 CIA-RDP86-00513R001135120005-3

L 40234-66

ACC NR: AP6019640

pounds are stable in a molten state. Orig. art. has: 1 table and 3 figures.

SUB CODE: 11/ SUBM DATE: 15Dec64/ ORIG REF: 008/ OTH REF: 006

Card 2/2

APPROVED FOR RELEASE: 03/13/2001 CIA-RDP86-00513R001135120005-3"

"APPROVED FOR RELEASE: 03/13/2001 CIA-RDP86-00513R001135120005-3

L 45660-66 EWT(m)/EWP(t)/ETI IJP(c) JD

ACC NR: AP6025466 (N) SOURCE CODE: UR/0080/66/039/007/1647/1650

45
B

AUTHOR: Chudakov, I. P.; Korachevskiy, A. G.

ORG: none

TITLE: Investigation of the activity of sodium in its alloys with lead in the 660--1100°K range

27 27

SOURCE: Zhurnal prikladnoy khimii, v. 39, no. 7, 1966, 1647-1650

TOPIC TAGS: sodium, alloy composition, vapor pressure, vaporization, phase diagram, emf

ABSTRACT: Activity of sodium in Na-Pb alloys and sodium vapor pressures over Na-Pb alloys containing 15.7-57.2 at % Na was measured in the 660-1100°K range. The Na activity was determined by measuring the electromotive force of the following system: (-)Na/electrolite containing Na ions/Na-Pb alloy (+). It was found that for a given temperature, the activity of sodium is a linear function of the sodium content in Na--Pb alloy. The sodium saturation vapor pressure (P_{Na}) over Na-Pb alloys at a given temperature can be calculated from the formula:

$$P_{Na} = P^0_{Na} \cdot a_{Na},$$

where P^0_{Na} is sodium vapor pressure over pure sodium at a given temperature, and a_{Na}

Card 1/2 UDC: 546.3-19'33'815

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"APPROVED FOR RELEASE: 03/13/2001 CIA-RDP86-00513R001135120005-3

L 45660-66

ACC NR: AP6025466

is sodium activity in Na-Pb alloy at a given temperature. Orig. art. has: 4 figures, 2 tables, 1 formula.

SUB CODE: 07/ SUBM DATE: 07Sep65/ ORIG REF: 003/ OTH REF: 004

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APPROVED FOR RELEASE: 03/13/2001 CIA-RDP86-00513R001135120005-3"

"APPROVED FOR RELEASE: 03/13/2001 CIA-RDP86-00513R001135120005-3

L 29241-66 EWT(m)/EWP(t)/ETI IJP(c) WW/JW/JD/JG

ACC NR: AP6019357 SOURCE CODE: UR/0149/66/000/001/0046/0048

AUTHOR: Gerasimenko, L. N.; Zaytsev, V. A.; Lozhkin, L. N.; Korachevskiy, A. G. 56 B

ORG: Department of Theoretical Fundamentals of Metallurgy, Leningrad Polytechnic Institute (Kafedra teoreticheskikh osnov metallurgii, Leningradskiy politekhnicheskiy institut)

TITLE: Thermodynamic properties of liquid alloys in the zinc-gallium system

SOURCE: IVUZ. Tsvetnaya metallurgiya, no. 1, 1966, 46-48

TOPIC TAGS: liquid metal, zinc alloy, gallium alloy, thermodynamics

ABSTRACT: The thermodynamic properties of the liquid alloys of the zinc-gallium system was studied by measuring the electromotive forces (emf) of the concentration bonds:

$$-Zn|\ (LiCl-KCl-NaCl)_{eut} + (1\ wt\ \%\ ZnCl_2)\ |\ Zn(N_{Zn}) + Ga(N_{Ga}) +.$$

The emf was measured in the 450-550° range in many compositions (N_{Zn} = 0.1 - 0.9). The emf values served to determine the partial molar thermodynamic characteristics of zinc. The corresponding integral values for the Zn-Ga system were calculated with the Gibbs-Duhem equation.

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APPROVED FOR RELEASE: 03/13/2001 CIA-RDP86-00513R001135120005-3"

"APPROVED FOR RELEASE: 03/13/2001 CIA-RDP86-00513R001135120005-3

L 29241-66

ACC NR: AP6019357

Times of the individual tests amounted to 22-24 hours. In the Zn-rich system (N_{Zn} >0.6) the emf was reproduced with an accuracy of plus or minus 0.2 MV at a given temperature. Increased Ga content in the alloys lower the relative error value in determining emf value. Results of emf measurements and the calculated thermodynamic characteristics of the system are presented. Calculated values of heat of mixing are in satisfactory agreement with data derived from direct calorimetric measurements. Orig. art. has: 3 figures and 1 table. [JPRS]

SUB CODE: 11, 20 / SUBM DATE: 14Jul64 / ORIG REF: 001 / OTH REF: 003

Card 2/2

APPROVED FOR RELEASE: 03/13/2001 CIA-RDP86-00513R001135120005-3"

"APPROVED FOR RELEASE: 03/13/2001 CIA-RDP86-00513R001135120005-3

MORACHEVSKIY, P. , SPEKTOR, Ye. and RYAZANTSEV, V. I.

" Method and instrument for determining the heat-physical characteristics of materials without taking tests.

Report presented at the 1st All-Union Conference on Heat- and Mass-Exchange, Minsk, RSSR, 5-9 June 1961

APPROVED FOR RELEASE: 03/13/2001 CIA-RDP86-00513R001135120005-3"

"APPROVED FOR RELEASE: 03/13/2001 CIA-RDP86-00513R001135120005-3

MORACHEVSKIY, D.Ye.; NECHAYEVA, A.A.

Characteristics of the migration of rhenium from molybdenites. Geokhimiia no.6:543-545 '60. (MIRA 13:10)

1. Vsesoyuznyy nauchno-issledovatel'skiy geologicheskiy institut, Leningrad.

(Rhenium) (Molybdenite)

APPROVED FOR RELEASE: 03/13/2001 CIA-RDP86-00513R001135120005-3"

"APPROVED FOR RELEASE: 03/13/2001 CIA-RDP86-00513R001135120005-3

5(2) SOV/156-59-2-18/48

AUTHORS: Morachevskiy, O. V., Yefremov, G. V., Hsü Chi-ku

TITLE: On the Co-precipitation of Thallium With Lead Sulphate(O soosazhdenii talliya s sul'fatom svintsa)

PERIODICAL: Nauchnyye doklady vysshey shkoly. Khimiya i khimicheskaya tekhnologiya, 1959, Nr 2, pp 293-295 (USSR)

ABSTRACT: The quantitative separation of thallium from lead is investigated in the case the latter is precipitated as sulphate. The separation was investigated by means of Tl^{204}. Table 1 shows that $PbSO_4$ carries down a considerable amount of thallium which is probably due to a double salt $PbSO_4 \cdot Tl_2SO_4 \cdot nH_2O$. Experiments showed that in the case of high concentrations of K^+-(or NH_4^+-)-ions in the solution the aforementioned formation of a double salt is avoided. A method of analysis is worked out on this basis. Lead is precipitated in the presence of potassium nitrate or potassium sulphate, thallium is photometrically determined by means of methyl violet. Table 2 shows the data of the analytical determination of thallium in galenite and the comparison with the results of spectrum

Card 1/2

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"APPROVED FOR RELEASE: 03/13/2001 CIA-RDP86-00513R001135120005-3

SOV/156-59-2-18/48

On the Co-precipitation of Thallium With Lead Sulphate

analysis carried out by A. N. Muravyeva in the VSYeGYeI (Vsesoyuznyy nauchno-issledovatel'skiy geologicheskiy institut Ministerstva geologii) (All-Union Scientific Geological Research Institute of the Ministry of Geology)). The authors thank V. I. Grebenshchikova for valuable advice. There are 2 tables and 14 references, 10 of which are Soviet.

PRESENTED BY: Kafedra analiticheskoy khimii Leningradskogo gosudarstvennogo universiteta im. A. A. Zhdanova (Chair of Analytical Chemistry, Leningrad State University imeni A. A. Zhdanov)

SUBMITTED: October 13, 1958

Card 2/2

APPROVED FOR RELEASE: 03/13/2001 CIA-RDP86-00513R001135120005-3"

"APPROVED FOR RELEASE: 03/13/2001 CIA-RDP86-00513R001135120005-3

Maratchevsky, I. PLASTICITY OF UKRAINIAN KAOLINS. *Trans Ukrainian Sci Research Inst Silicate Ind* (U.S.S.R.), I, (1929). The plasticity of 14 kaolins was determined by the methods of Zemiatchensky, Lysin, Stark, Sokolov, Dümmler, and Engler, and by estimation of the quantity of hygroscopic water absorbed by the kaolin, the speed of sedimentation of kaolin suspensions, the density of the suspensions, the quantity of water in the mass of normal consistency, the drying shrinkage (at 110°C.) and firing shrinkage (at 1410°C.), transverse strength of dry samples (briquettes), the water absorption of the fired samples, and the average size of the grains. The first three methods give the more exact values of plasticity. Of all the direct methods, M. recommends the Stark method which gave the best results. The tested kaolins can be divided into 3 groups as follows: (1) of high plasticity, 1 kaolin, (2) average plasticity, 7 kaolins, and (3) low plasticity, 6 kaolins.

APPROVED FOR RELEASE: 03/13/2001 CIA-RDP86-00513R001135120005-3"

"APPROVED FOR RELEASE: 03/13/2001 CIA-RDP86-00513R001135120005-3

1. MORACHEVSKIY, I. I. - ANGENITSKAYA, R. B. - KRESNIKOVA, V. V. - MOYSEYENKO, YA. F. - MIPKIS, I. I.

2. USSR (600)

4. Water Pipes

7. Ceramic pipes for pressure pipelines. Stek. i ker. 9 no. 12, 1952

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

APPROVED FOR RELEASE: 03/13/2001 CIA-RDP86-00513R001135120005-3"

"APPROVED FOR RELEASE: 03/13/2001 CIA-RDP86-00513R001135120005-3

MORACHEVSKIY, I.I., kandidat tekhnicheskikh nauk; ANGELITSKAYA, R.B., kandidat tekhnicheskikh nauk; KRESTNIKOVA, V.V., inzhener; MOYSEYENKO, Ya.F.; KIPNIS, I.I.

Clay pipe used for pressure pipe lines. Biul.stroi.tekh. 10 no.3:22-24 F '53. (MLRA 6:12)

1. Institut stroitel'nykh materialov Ministerstva Promyshlennosti Stroitel'nykh Materialov. (Pipe, Clay)

APPROVED FOR RELEASE: 03/13/2001 CIA-RDP86-00513R001135120005-3"

"APPROVED FOR RELEASE: 03/13/2001 CIA-RDP86-00513R001135120005-3

ZHUKOV, A., kandidat tekhnicheskikh nauk; MORACHEVSKIY, I., kandidat tekhnicheskikh nauk; KHUTORYANSKIY, N., kandidat tekhnicheskikh nauk.

Large-block wall materials made of brick. Strof. mat., izdel. i konstr. 2 no.8:11-12 Ag '56. (MLRA 9:10)

(Building blocks)

APPROVED FOR RELEASE: 03/13/2001 CIA-RDP86-00513R001135120005-3"

"APPROVED FOR RELEASE: 03/13/2001 CIA-RDP86-00513R001135120005-3

KORABELNIKOV, Ivan Ivanovich; POLYAKOV, Vsevolod Vasil'yevich; ALEKSANDROVA, V. redaktor; IOAKIMIS, A., tekhnicheskiy redaktor

[Advanced techniques in making bricks and tiles] Peredovye metody izgotovleniia kirpicha i cherepitsy. Kiev, Gos.izd-vo lit-ry po stroit. i arkhit. USSR, 1957. 111 p. (MIRA 10:12)
(Brickmaking) (Tiles)

APPROVED FOR RELEASE: 03/13/2001 CIA-RDP86-00513R001135120005-3"

"APPROVED FOR RELEASE: 03/13/2001 CIA-RDP86-00513R001135120005-3

MORACHEVSKIY, I.I., kand.tekhn.nauk; CHERNOGORENKO, V.B., kand.khim.nauk

Determining the temperature of maximum plasticity of ceramic materials according to their flowability. Stroi.mat. 5 no.7:32-33 Jl '59. (MIRA 12:10)

(Ceramics) (Plasticity)

APPROVED FOR RELEASE: 03/13/2001 CIA-RDP86-00513R001135120005-3"

"APPROVED FOR RELEASE: 03/13/2001 CIA-RDP86-00513R001135120005-3

MORACHEVSKIY, I.I.; ANGELITSKAYA, R.B.; CHUMAKOVA, Ye.A.; BUSHEV, I.G.

New instruments and methods for studying the mechanism of the drying of colloidal capillary-porous materials. Inzh.-fiz.zhur. no.8:13-18 Ag '60. (MIRA 13:8)

1. Akademiya stroitel'stva i arkhitektury USSR, g. Kiyev.
(Porous materials--Drying)

APPROVED FOR RELEASE: 03/13/2001 CIA-RDP86-00513R001135120005-3"

"APPROVED FOR RELEASE: 03/13/2001 CIA-RDP86-00513R001135120005-3

MORACHEVSKIY, I.I.; SHTEYGEL'BERG, Ye.Ya.; CHERNOGORENKO, V.B.; KIRDO, M.A.

Relation between the heat of wetting, the bound water content, the hygroscopicity, and the ion exchange capacity of clays. Koll.zhur. 22 no.3:340-343 My-Je '60. (MIRA 13:7)

1. Nauchno-issledovatel'skiy institut stroitel'nykh materialov i izdeliy, Kiyev.
(Clay) (Heat of wetting) (Ion exchange)

APPROVED FOR RELEASE: 03/13/2001 CIA-RDP86-00513R001135120005-3"

"APPROVED FOR RELEASE: 03/13/2001 CIA-RDP86-00513R001135120005-3

MORACHEVSKIY, I. I., SPEKTER, B. E., and RYAZANTSEV, V. I.

"Method and Instrument for the Determination of Thermal Properties of Materials without Testing."

Report submitted for the Conference on Heat and Mass Transfer, Minsk, BSSR, June 1961.

APPROVED FOR RELEASE: 03/13/2001 CIA-RDP86-00513R001135120005-3"

"APPROVED FOR RELEASE: 03/13/2001 CIA-RDP86-00513R001135120005-3

MORACHEVSKIY, I. L., SHTEYNGEL'BERG, E. I., and GOLIK, L. I.

"Application of a Differential Thermo-Couple for the Investigation of Mass Transfer at Drying Silicate Materials."

Report submitted for the Conference on Heat and Mass Transfer, Minsk, BSSR, June 1961

APPROVED FOR RELEASE: 03/13/2001 CIA-RDP86-00513R001135120005-3"

"APPROVED FOR RELEASE: 03/13/2001 CIA-RDP86-00513R001135120005-3

MORACHEVSKIY, I.I.; CHERNOGORENKO, V.B.

Effect of shrinkage strain on the strength of the structure and the electric conductivity of clay masses. Stek. i ker. 18 no. 1:33-34 Ja '61. (MIRA 14:1)
(Ceramics) (Clay—Electric properties)

APPROVED FOR RELEASE: 03/13/2001 CIA-RDP86-00513R001135120005-3"

"APPROVED FOR RELEASE: 03/13/2001 CIA-RDP86-00513R001135120005-3

MORACHEVSKIY, I. I.; SPEKTOR, B. V.; RYAZANTSEV, V. I.

A method and instrument for determining the thermophysical characteristics of materials without taking samples. Teplo- i massoper. 1:61-64 '62. (MIRA 16:1)

1. Nauchno-issledovatel'skiy institut stroitel'nykh materialov Akademii stroitel'stva i arkhitektury UkrSSR.

(Materials—Thermal properties)
(Materials—Testing)

APPROVED FOR RELEASE: 03/13/2001 CIA-RDP86-00513R001135120005-3"

"APPROVED FOR RELEASE: 03/13/2001 CIA-RDP86-00513R001135120005-3

MORACHEVSKIY, N.A., inzhener.

Erecting precast reinforced concrete viaducts. Mekh.trud.rab. 8 no.8:26-28 D '54. (MLRA 8:1)
(Viaducts) (Precast concrete construction)

APPROVED FOR RELEASE: 03/13/2001 CIA-RDP86-00513R001135120005-3"

"APPROVED FOR RELEASE: 03/13/2001 CIA-RDP86-00513R001135120005-3

MORACHEVSKIY, N.A., inzhener.

Rapid construction of precast re uforced concrete underpasses.
Mekh.trud.rab. 10 no.5:21-24 My '56. (MLRA 9:8)
(Moscow--Underpasses)

APPROVED FOR RELEASE: 03/13/2001 CIA-RDP86-00513R001135120005-3"

"APPROVED FOR RELEASE: 03/13/2001 CIA-RDP86-00513R001135120005-3

Dmitrovskiy, N. A.

AUTHOR: Morachevskiy, N.A., Engineer 118-58-5-16/21

TITLE: The Construction of a Viaduct From Prestressed Reinforced Concrete (Stroitel'stvo puteprovoda iz sbornogo zhelezobetona)

PERIODICAL: Mekhanizatsiya Trudoyemkikh i Tyazhelykh Rabot, 1958, # 5, pp 38-39 (USSR)

ABSTRACT: In 1957, the Stroitel'naya organizatsiya ministerstva transportnogo stroitel'stva (The Construction Department of the Ministry for Transportation Construction) built the Kuntsevo viaduct on the Rublevo highway, and spanning the Kalinin railroad, in 136 days. This viaduct is 86.7 m long, 12 m wide with a clearance of 6.39 m.

Reinforced concrete parts were produced by the Dmitrovskiy betonnyy zavod (The Dmitrov Concrete Plant). Equipment used in the construction work were: a 50-ton diesel electric crane, 45 and 75-ton railroad cranes, 3 and 5-ton auto cranes, excavators of types PG-0.35 and E-505, and S-80 tractors converted into bulldozers. Power was supplied by a movable electric power plant of the ZhES -60 type, which produced about 150,000 kwh. Preparatory work took 74, con-

Card 1/2

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"APPROVED FOR RELEASE: 03/13/2001 CIA-RDP86-00513R001135120005-3

118-58-3-16/21

The Construction of a Viaduct From Prestressed Reinforced Concrete

struction work proper, 61 days.
There are 2 photographs and 1 table.

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Card 2/2

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MORACHEVSKIY, N.A., insh.

Demonstration building of minor engineering structures.
Trudy MIIT no.14:349-356 '59. (MIRA 13:1)

1. Orgtransstroy.
(Railroad bridges) (Culverts)

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