"APPROVED FOR RELEASE: 06/20/2000 CIA-RDP86-00513R001446420010-9

L 40752-65 EWT(d)/EWT(1)/EWP(m)/EWT(m)/EWP(w)/EWA(d)/T-2/EWP(k)/FCS(k)/
EWA(h)/EWA(1) Pd-1/Pf-4/Peb EM

ACCESSION NR: AP5006166 S/0258/65/005/001/0158/0161

42
B

AUTHOR: Rykov, V. A. (Moscow)

TITLE: On the fundamental solution of the problem of flow around a symmetrical wing in a longitudinal magnetic field

SOURCE: Inzhenernyy zhurnal, v. 5, no. 1, 1965, 158-161

TOPIC TAGS: magnetohydrodynamics, compressible flow, Reynolds number, wing flow

ABSTRACT: The author considers the linearized problem of the flow of a compressible conducting gas of uniform density around a symmetrical wing of small relative thickness in the presence of a longitudinal homogeneous magnetic field. The wing is assumed to be dielectric and to carry no current. The system of equations itself was analyzed by the author elsewhere (Inzh. zh. v. III, no. 4, 1963). A solution of the equations is found in integral form and its asymptotic behavior is investigated by the Laplace method. It is shown that the fundametal solution is the influence function and the behavior of the solution can be studied by investigating the fundamental solution. As the Reynolds number becomes infinite, the asymptotic solution goes over into the exact fundamental solution for infinite

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L 40752-65
ACCESSION NR: AP5006166

conductivity. The curves on which the absolute magnitude of the distrubance assumes a maximum value are determined for each component of the asymptotic solution, and it is shown that the distrubances are concentrated in two trails, one directed upstream and the other downstream. Orig. art. has: 6 formulas.

ASSOCIATION: None

SUBMITTED: 17Feb64 ENCL: 00 SUB CODE: ME

NR REF SOV: 003 OTHER: 001

Card 2/2

APPROVED FOR RELEASE: 06/20/2000 CIA-RDP86-00513R001446420010-9"

"APPROVED FOR RELEASE: 06/20/2000 CIA-RDP86-00513R001446420010-9

L 41655-65 EWP(m)/EPR/EWG(v)/EWP(w)-2/EWT(1)/T-2/EPA(sp)-2/EWA(m)-2 Pd-1/Pe-5/PI-4/Ps-4/Pab-10 IJP(c)

ACCESSION NR: AP5006269 S/0040/65/029/001/0178/0181

AUTHOR: Rykov, V. A. (Moscow)

TITLE: Concerning an exact solution of the equations of magnetogasdynamics for finite conductivity

SOURCE: Prikladnaya matematika i mekhanika v. 29, no. 1, 1965, 178-181

TOPIC TAGS: gas dynamics, magnetohydrodynamics, plasma physics, applied mathematics, partial differential equations

ABSTRACT: A system of equations in magnetogasdynamics is discussed which describes two-dimensional nonsteady-state flow in a magnetic field perpendicular to the plane of flow (A. G. Kulikovskiy, G. A. Lyubimov, Magnitnaya gidrodinamika, Fizmatgiz 1962). For the ratio of specific heats $\gamma = c_p/c_v = 2$, it is demonstrated that a transformation which is dependent upon one arbitrary function of time reduces the system of equations of magnetogasdynamics to a similar system, but with a certain external force in the equations of motion. To each solution of the new system of equations there corresponds a solution of the original system of equations. The author considers as an example the exact solution that describes the compression of

Card 1/2

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L 41655-65

ACCESSION NR: AP5006269

a plasma cylinder of finite conductivity. Orig. art. has: 16 formulas.

ASSOCIATION: none

SUBMITTED: 13Jul64 ENCL: 00 SUB CODE: MA, ME

NO REF SOV: 003 OTHER: 000

CC

Card 2/2

APPROVED FOR RELEASE: 06/20/2000 CIA-RDP86-00513R001446420010-9"

"APPROVED FOR RELEASE: 06/20/2000 CIA-RDP86-00513R001446420010-9

RYKOV, V.A., inzh.

Automatic welding of small-diameter stainless steel pipe. Stroi. truboprov. 7 no.12:20 D '62. (MIRA 16:1)

1. Sibirskiy filial Orgstroya, Novosibirsk.
(Pipe, Steel--Welding)

APPROVED FOR RELEASE: 06/20/2000 CIA-RDP86-00513R001446420010-9"

"APPROVED FOR RELEASE: 06/20/2000 CIA-RDP86-00513R001446420010-9

VOLCHKOV, P.M.; RYKOV, V.D.; OLENDAREV, N.S.

Reinforced concrete blocks for lining vertical mine shafts. Gor. zhur. no.4:48 Ap '58. (MIRA 11:4)
(Concrete blocks--Patents)

APPROVED FOR RELEASE: 06/20/2000 CIA-RDP86-00513R001446420010-9"

"APPROVED FOR RELEASE: 06/20/2000 CIA-RDP86-00513R001446420010-9

RYKOV, V.A., inzh.; TRUSOVA, I.I., inzh.

Deformation of large bearing races during heat treatment. Metalloved. i term. obr. met. no.6:51-53 Je '62. (MIRA 15:7)

1. Pervyy Gosudarstvennyy podshipnikovyy zavod imeni Kaganovicha.
(Bearings (Machinery)) (Deformations (Mechanics))

APPROVED FOR RELEASE: 06/20/2000 CIA-RDP86-00513R001446420010-9"

"APPROVED FOR RELEASE: 06/20/2000 CIA-RDP86-00513R001446420010-9

VOLCHKOV, P.M., inzh.; OLENDAREV, N.S., inzh.; RYKOV, V.D., inzh.

Shaft sinking with preliminary rock cementation. Shakht. stroi. no.6:27-29 '58. (MIRA 11:6)
(Shaft sinking) (Grouting)

APPROVED FOR RELEASE: 06/20/2000 CIA-RDP86-00513R001446420010-9"

"APPROVED FOR RELEASE: 06/20/2000 CIA-RDP86-00513R001446420010-9

L 8556-66 EWT(1)/EWT(m)/EPF(n)-2/EWP(j)/EWA(h)/ETC(m)/T/EWA(d) RPL

ACCESSION NR: AP5021177 RM/WW/JW UR/0139/65/000/004/0108/0111

44,55

AUTHOR: Rykov, V. I.; Sheynfel'd, V. L. 44,55

TITLE: The application of the Frenkel-Gubanov formula to normal liquids with polyatomic molecules

SOURCE: IVUZ. Fizika, no. 4, 1965, 108-111

TOPIC TAGS: heat capacity, heat of vaporization, heat theory, liquid property

ABSTRACT: The formula of Ya. I. Frenkel and A. Gubanov (ZhETF v. 16, no. 5, 435, 1946) for the temperature coefficient of the surface tension

$$V^{2/3}\frac{d\sigma}{dT} = -\frac{2}{3}\sigma\alpha V^{2/3} - \frac{\sigma V^{2/3}(C_p - C_V)}{L} - 0.84$$

is found to differ from the experimental values of certain normal liquids by 30--50%. The constant 0.84 is not universal and should, according to Frenkel and Gubanov, depend on the structure of the molecules because of the neglect of the effect of the surface on the rotational and internal degrees of freedom of polyatomic molecules. For organic liquids the constant is found to be about 3/2. It is shown further that the Frenkel-Gubanov formula can also be very useful for obtaining semi-empirical relations if the constant 0.84 is replaced by a quantity

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L 8556-66

ACCESSION NR: AP5021177

proportional to the Eotvos coefficient, with a proportionality constant 2/3. A new relation between the heat of evaporation and the difference between the heat capacities is obtained which is in good agreement with experiment. It can be useful for calculating the difference between the heat capacities of a liquid at constant pressure and volume. Orig. art. has: 2 tables and 10 formulas.

ASSOCIATION: Kishinevskiy gosuniversitet (Kishinev State University) 44,55

SUBMITTED: 25Oct63 ENCL: 00 SUB CODE: GP, TD

NR REF SOV: 006 OTHER: 004

jw

Card 2/2

APPROVED FOR RELEASE: 06/20/2000 CIA-RDP86-00513R001446420010-9"

"APPROVED FOR RELEASE: 06/20/2000 CIA-RDP86-00513R001446420010-9

RYKOV, V.I.

Relation between the speed of sound and certain three-dimensional and surface parameters of the liquid phase. Uch. zap. Kish. un. 75:26-30 '64. (MIRA 18:10)

APPROVED FOR RELEASE: 06/20/2000 CIA-RDP86-00513R001446420010-9"

"APPROVED FOR RELEASE: 06/20/2000 CIA-RDP86-00513R001446420010-9

L 9211-66 EWT(1)/EWT(m)/ETC/EWG(m)/EWP(j)/ETC(m) RPL WW/JW/JAT

ACC NR: AR6000118 SOURCE CODE: UR/0058/65/000/008/E008/E008

78

B

SOURCE: Ref. zh. Fizika, Abs. 8E53

AUTHORS: Rykov, V. I.; Sheynfel'd, V. L.; Yakovleva, G. S.
44,55 44,55 44,55

ORG: none

TITLE: On the Frenkel'-Gubanov formula and the relation between the speed of sound, heat of evaporation, and surface energy 44,55

CITED SOURCE: Uch. zap. Kishinevsk. un-t, v. 75, 1964, 31-34

TOPIC TAGS: surface tension, temperature dependence, thermodynamic law, sound propagation, thermal expansion, evaporation
21,44,55 21,44,55

TRANSLATION: Starting from the well-known Frenkel'-Gubanov formula for the temperature coefficient of surface tension, the authors establish with the aid of several thermodynamic laws the relation between the speed of sound, heat of evaporation, free surface energy, and thermal coefficient of volume expansion for normal liquids. A relation is established between the speed of sound and the boiling temperature.

SUB CODE: 20

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APPROVED FOR RELEASE: 06/20/2000 CIA-RDP86-00513R001446420010-9"

"APPROVED FOR RELEASE: 06/20/2000 CIA-RDP86-00513R001446420010-9

RYKOV, V. I.

"Investigation of the Relationship Between the Temperature and the Surface Energy of Normal Liquids." Cand Chem Sci, Kishinev State U, 29 Dec 54. (SM, 16 Dec 54)

Survey of Scientific and Technical Dissertations Defended at USSR Higher Educational Institutions (12)
SO: Sum. No. 556, 24 Jun 55

APPROVED FOR RELEASE: 06/20/2000 CIA-RDP86-00513R001446420010-9"

"APPROVED FOR RELEASE: 06/20/2000 CIA-RDP86-00513R001446420010-9

RYKOV, V. I.

"Problem of Temperature Dependence of Surface Tension Coefficient of Liquid". Uch. Zap. Kishinevsk, Un-ta, 11, pp 97-104, 1954

Constants of Van der Waals and bachinskiy' formulas are computed with higher accuracy. It is shown that the stability of c for various liquids in Bachinskiy's formula: $\sigma = c\,(\sigma\ \mathrm{liq} - \sigma\ \mathrm{sur})^4$ is improved if the exponent is computed from the equation M $1/q(T_{cr} - T) + 2/3$, where $\alpha = (1/v) \cdot dv/dT$ is the temperature coefficient of the volume expansion of the liquid. (RZhFiz, No 10, 1955)

SO: Sum No 812, 6 Feb 1956

APPROVED FOR RELEASE: 06/20/2000 CIA-RDP86-00513R001446420010-9"

"APPROVED FOR RELEASE: 06/20/2000 CIA-RDP86-00513R001446420010-9

RYKOV, V.I.

B-6

USSR/Physical Chemistry - Liquids and Amorphous Substances. Gases.

Abs Jour : Referat Zhur - Khimiya, No 6, 25 March 1957, 18392

Author : Rykov V.I.
Inst : Uch. zap. Kishinevsk un-ta, 1952, 5, 131-140
Title : Reciprocal Connection Between Surface Energy, Molecular Pressure, Heat of Evaporation and Heat Capacity of Non-Associated Liquids.

Orig Pub : Uch. zap. Kishivevsk. un-ta, 1956, 24, 77-81

Abstract : On the basis of Shcherbakov's formula which connects molecular pressure of the dispersed and non-dispersed phase, degree of dispersion and complete specific surface energy (Shcherbabakov, L.M. and Rykov, V.I. Uch. zap. Kishinevsk. un-ta, 1952, 5, 131-140), the author discovers, that molecular pressure, at different temperatures, is directly proportional to the density for one and the same non-associated liquid; that the

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"APPROVED FOR RELEASE: 06/20/2000 CIA-RDP86-00513R001446420010-9

USSR/Physical Chemistry - Liquids and Amorphous Substances. Gases. B-6

Abs Jour : Referat Zhur - Khimiya, No 6, 25 March 1957, 18392

difference of heat capacities, at constant pressure and constant volume, for non-associated liquids is proportional to the thermal coefficient of expansion; and that the heat of evaporation is directly proportional to the free surface energy, to mola l volume in 2/3 power and to the thermal coefficient of expansion.

Card 2/2

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"APPROVED FOR RELEASE: 06/20/2000 CIA-RDP86-00513R001446420010-9

S/058/61/000/010/062/100
A001/A101

AUTHOR: Rykov, V.I.

TITLE: On interconnection between the latent heat of evaporation and surface energy of non-associated liquids

PERIODICAL: Referativnyy zhurnal. Fizika, no. 10, 1961, 220, abstract 10D22 ("Uch. zap. Kishinevsk. un-t", 1960, v. 55, 219 - 225)

TEXT: The author proposes the following empirical formulae for latent heat of evaporation L of non-associated liquids:

$$L = C(\delta - \delta')^n, \quad L = A\sigma^m, \quad L = D(1 - T/T_{cr})^{m'},$$

where A, B, C are empirical constants, δ and δ' are densities of liquid and saturated vapor, σ is surface tension, T_{cr} is critical temperature, and the exponents are expressed as follows:

$$n = 1 + {}^2/_3\,\alpha(T_{cr} - T)$$

$$m = \alpha(T_{cr} - T), \quad m' = [1 + {}^2/_3\,\alpha(T_{cr} - T)]\alpha(T_{cr} - T)$$

(α is coefficient of thermal expansion).

[Abstracter's note: Complete translation]

L. Filippov

Card 1/1

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"APPROVED FOR RELEASE: 06/20/2000 CIA-RDP86-00513R001446420010-9

30406
S/058/61/000/009/021/050
A001/A101

5.4800(1273)

AUTHOR: Rykov, V.I.

TITLE: On interconnection between evaporation latent heat and full surface energy

PERIODICAL: Referativnyy zhurnal. Fizika, no. 9, 1961, 166, abstract 9D13 ("Uch. zap. Kishinevsk. un-t", 1960, v. 55, 241 - 249)

TEXT: A modified Langmuir formula, $L = 2/3 \sqrt[3]{36\pi N} \cdot \varepsilon v^{2/3}$, where N = Avogadro number, is proposed for the relation of latent evaporation heat L and surface energy of a liquid, $\varepsilon v^{2/3}$. The following formula holds for L: $L = (B - RT/\delta)(\delta - \delta')$, where δ and δ' are densities of liquid and saturated vapor, and B is empirical constant.

L. Filippov

[Abstracter's note: Complete translation]

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"APPROVED FOR RELEASE: 06/20/2000 CIA-RDP86-00513R001446420010-9

S/058/61/000/010/074/100
A001/A101

24,7400

AUTHORS: Rykov, V.I., Antonenko, T.I.

TITLE: On determining the surface energy of solids

PERIODICAL: Referativnyy zhurnal. Fizika, no. 10, 1961, 242, abstract 10E90 ("Uch. zap. Kishinevsk. un-t", 1960, v. 55, 227 - 231)

TEXT: The authors derive an equation which relates specific surface energies of the solid $\mathcal{E}_s$ and its smelt $\mathcal{E}_{sm}$ at the smelting point: $\mathcal{E}_s = K\,\mathcal{E}_{sm}$; where K depends on energies of sublimation and evaporation, external pressure and molar volumes of solid, smelt and vapor. The formula yields results in satisfactory agreement with experiments. A linear relation is obtained, using the Gibbs-Helmholtz equation, between the specific surface free energies of the solid and its smelt. The following quantities enter this expression as parameters: temperature and heat of smelting, molar volumes and thermal coefficients of volumetric expansion for the solid and its smelt.

G. Krasko

[Abstracter's note: Complete translation]

Card 1/1

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"APPROVED FOR RELEASE: 06/20/2000 CIA-RDP86-00513R001446420010-9

83697

S/076/60/034/008/013/014
B015/B054

11.5300

AUTHOR: Rykov, V. I. (Kishinev)

TITLE: Temperature Dependence of the Heat of Vaporization of a Nonassociated Liquid

PERIODICAL: Zhurnal fizicheskoy khimii, 1960, Vol. 34, No. 8, pp. 1851-1855

TEXT: The author derives a new, semi-empirical equation for calculating the heat of vaporization of nonassociated liquids for a relatively wide temperature range:

$L = (B - \frac{RT}{\delta})(\delta - \delta')$ (10) (B = an empirical constant, δ and δ' = density of the liquid, and of the vapor phase, respectively, R = gas constant, T = absolute temperature). A Table containing corresponding data for benzene, carbon tetrachloride, ethane, n-hexane, argon, and nitrogen shows that equation (10) for nonassociated liquids agrees with the experimental data in a wide temperature range with an accuracy of 1-4%. For the low-boiling liquids (argon, nitrogen), the calculated

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"APPROVED FOR RELEASE: 06/20/2000 CIA-RDP86-00513R001446420010-9

83697

Temperature Dependence of the Heat of Vaporization of a Nonassociated Liquid

S/076/60/034/008/013/014
B015/B054

values agree with the experimental data at some distance from the critical point with an accuracy of 2-6%. There are 1 table and 19 references: 11 Soviet, 7 US, and 1 German.

ASSOCIATION: Kishinevskiy gosudarstvennyy universitet (Kishinev State University)

SUBMITTED: December 10, 1958

Card 2/2

APPROVED FOR RELEASE: 06/20/2000 CIA-RDP86-00513R001446420010-9"

"APPROVED FOR RELEASE: 06/20/2000 CIA-RDP86-00513R001446420010-9

84251

S/076/60/034/009/014/022
B015/B056

5.4700 also 2209

AUTHOR: Rykov, V. I.

TITLE: The Latent Evaporation Heat of a Non-associate Liquid

PERIODICAL: Zhurnal fizicheskoy khimii, 1960, Vol. 34, No. 9, pp. 2013-2018

TEXT: Although many papers dealt with the correlation between the latent evaporation heat and other physical quantities, the problem could hitherto not be solved. In the present case, a theoretical substantiation and precise definition of the equations derived by Stefan (Ref. 3) and Lewis (Refs. 8, 9) was carried out on the basis of various published data, among others by V. Kistyakovskiy (Ref. 7) and L. M. Shcherbakov (Refs. 11, 12). In consideration of the thermodynamic equation $c_p - c_v = K\alpha v$, an equation for calculating the specific heat of a liquid of constant volume is derived: $c_p - c_v = L_0 \alpha v'_0/(v'_0 - v)$ (25) (c_p and c_v = specific heat of the liquid phase at constant pressure and at constant volume,

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"APPROVED FOR RELEASE: 06/20/2000 CIA-RDP86-00513R001446420010-9

84251

The Latent Evaporation Heat of a Non-associate Liquid

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B015/B056

respectively; α = coefficient of thermal expansion, L_o = gram-molecular latent evaporation heat). It is shown that the latent evaporation heat of maximally dispersed drops equals half the latent evaporation heat of compact drops:

$$L_\infty \cong \frac{1}{2} L_o \quad (27).$$

Tables concerning the validity of Stefan's equation (Table 1) as well as the agreement of the values calculated from equation (25) with data by A. M. Mamedov (Ref. 17) are given (Table 2). There are 2 tables and 18 references: 10 Soviet, 5 German, and 3 US.

ASSOCIATION: Kishinevskiy gosudarstvennyy universitet (Kishinev State University)

SUBMITTED: December 24, 1958

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APPROVED FOR RELEASE: 06/20/2000 CIA-RDP86-00513R001446420010-9"

"APPROVED FOR RELEASE: 06/20/2000 CIA-RDP86-00513R001446420010-9

RYKOV, V.I.

Interrelation of the heat of vaporization and the surface energy with the heat capacity of the liquid and gaseous phases. Uch. zap. Kish. un. 49:59-65 '61. (MIRA 15:7)
(Heat of vaporization)
(Phase rule and equilibrium)

APPROVED FOR RELEASE: 06/20/2000 CIA-RDP86-00513R001446420010-9"

"APPROVED FOR RELEASE: 06/20/2000 CIA-RDP86-00513R001446420010-9

RYKOV, V.I.; VYRLAN, A.I.

Thickness of a transient liquid film on a surface (brief report). Uch. zap. Kish. un. 49:66-68 '61. (MIRA 15:7)
(Film coefficients (Physics))

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"APPROVED FOR RELEASE: 06/20/2000 CIA-RDP86-00513R001446420010-9

21103
S/069/61/023/002/006/008
B101/B208

11,7350

AUTHORS: Shcherbakov, L. M. and Rykov, V. I.

TITLE: Heat of evaporation of droplets

PERIODICAL: Kolloidnyy zhurnal, v. 23, no. 2, 1961, 221-227

TEXT: The present paper describes a precise thermodynamic study of the heat of evaporation as a function of the radius r of the liquid drop. The thermodynamic equilibrium of the drop (index ') with the saturated vapor (index ") may be defined as: $\mu'(P', T) = \mu''(P'', T)$; $P' - P'' = 2\sigma/r + \partial\sigma/\partial r$ (2), where $\mu^{(i)}$ is the chemical potential of the i-th phase, and σ is the free surface energy. Considering $\partial\mu/\partial P = v$ (v = molar volume of the respective phase) and assuming the condition $v'' = RT/P''$ for an ideal gas, the condition for the change of the chemical potential $d\mu = vdP - \eta dT$ (η = entropy of the respective phase), the following system of equations is obtained: $v''dP'' - v'dP' = (\lambda/T)dT$; $dP' - dP'' = d(2\sigma/r + \partial\sigma/\partial r)$ (5), where λ is the molar heat of evaporation of the drop. To calculate the heat of evaporation, the authors proceed from the equation for enthalpy: $H = U + PV$. Taking

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into account the surface enthalpy $H_s = \varepsilon S - \sigma S$ (ε = specific total surface energy) one obtains: $\Delta H = H'' - (H' + H_s)$ and the following is found for the heat of evaporation: $\lambda = h'' - h' - \partial H_s/\partial m$ ($h^{(i)}$ = molar enthalpy of the i-th phase, m = mass in moles). By definition, $h' = u' + P'v'$; $h'' = u'' + P''v''$. $v' \cong v'_\infty$ is substituted for the liquid phase (the subscript ∞ denotes the values for a large liquid surface), and $P''v'' = P_\infty v''_\infty$ for the gaseous phase. By substituting the expressions derived for h', h'', and $\partial H_s/\partial m$ from $P' = P_\infty + 2\sigma/r + \partial\sigma/\partial r$ in (6) one obtains $\lambda = (h''_\infty - h'_\infty) - v'_\infty(2\varepsilon/r + \partial\varepsilon/\partial r) = \lambda_\infty - v'_\infty(2\varepsilon/r + \partial\varepsilon/\partial r)$. Now, the molar volume v' of the liquid is replaced by the density δ and the molecular weight M, and the following is obtained for the decrease of the molar heat of evaporation due to development of the drop surface: $\Delta\lambda = -(M/\delta)(2\varepsilon/r + \partial\varepsilon/\partial r)$ (7). It does not depend on the free, but on the total surface energy ε. $\Delta\lambda < 0$ holds, i.e., dispersion reduces the heat of evaporation in each liquid. According to Ya. I. Frenkel' (Ref. 7: Zh. eksper. i teor. fiz. 9, 641, 1939), molecular complexes are formed in supersaturated vapor prior to the formation drops. Since ε decreases with r, and vanishes at r_o, r_o is the boundary between these complexes ($r < r_o$)

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"APPROVED FOR RELEASE: 06/20/2000 CIA-RDP86-00513R001446420010-9

21103
S/069/61/023/002/006/008
B101/B208

Heat of ...

and the smallest drops ($r > r_o$). Next, $\varepsilon = \varepsilon_\infty \cdot \varphi(r/r_o) = \varepsilon_\infty \cdot \varphi(x)$ (8), is obtained where ε_∞ is the surface energy of a large quantity of liquid, $\varphi(x)$ is a function with $\lim\varphi(x) = 1$; $\lim\varphi(x) = 0$. By substituting (8) in (7), one obtains $\Delta\lambda = -(M/\delta)(\varepsilon_\infty/r_o)(2\varphi/x + \varphi')$ (9). If the number g_o of particles contained in the smallest drop is substituted for its radius r_o, it follows that $\Delta\lambda = -(4\pi N_A/3)^{1/3}(M/\delta)^{2/3}(\varepsilon_\infty/g_o^{1/3})(2\varphi/x + \varphi')$ (10) (N_A = Avogadro number). At maximum dispersion ($r = r_o$, $x = 1$), the heat of evaporation equals the association energy: $\lim_{x\to 1}\lambda = E_{ass}$ which is assumed to be equal to RT_{crit}. The limit of (10) thus gives:
$\lim_{x\to 1}\Delta\lambda = RT_{crit} - \lambda_\infty = -(4\pi N_A/3)^{1/3}(M/\delta)^{2/3}(\varepsilon_\infty/g_o^{1/3})\varphi'$ (1). λ_∞/RT_{crit} being equal for chemically related substances, this is also assumed for g_o, and one obtains: $\lambda_\infty/\varepsilon_\infty(v'_\infty)^{2/3} \cong \text{const} = B$ (11). The values of B were calculated for n-C_6H_{12}, n-C_8H_{18}, C_6H_6, $CHCl_3$, CCl_4, CH_3COOH. It is now

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"APPROVED FOR RELEASE: 06/20/2000 CIA-RDP86-00513R001446420010-9

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B101/B208

Heat of ...

assumed that Eq. (11) is also valid near the melting point:
$\varepsilon_{solid\ \infty}/\varepsilon_{liqu\ \infty} = (\delta_{solid}/\delta_{liqu})^{2/3} \varrho_\infty/\lambda_\infty$ (12), where ϱ denotes the molar heat of sublimation of the substance not triturated. $B \times 10^{-7}$ lies between 0.25-0.28. The values of the total surface energy of some solid substances were calculated from this equation (Table 2). The value obtained for ε from Eq. (8) is substituted in the corrected Laplace equation for the molecular pressure in the drop: $K = K_\infty - (2\varepsilon/r + \partial\varepsilon/\partial r)$ (13). K_∞ is the molecular pressure on a plane liquid surface. By means of the van der Waals approximation $K \cong E_{ass}/v' \cong E_{ass}/v'_\infty$ one finds
$\lim_{x \to 1} K = E_{ass}/v'_\infty = K_\infty - (\varepsilon_\infty/r_o)\varphi'$ (1). Passage to the limit in (9) gives (considering that $M/\delta = v'_\infty$): $\lim_{x \to 1} \Delta\lambda = E_{ass} - \lambda_\infty = -(v'_\infty \varepsilon_\infty/r_o)\varphi'$ (1).
Combination of the two expressions leads to Stefan's law:
$K_\infty = \lambda_\infty/v'_\infty$ (14), which is thus substantiated. Mention is made of P. E. Strebeyko and Martynov. The authors thank B. V. Deryagin, Corresponding Member of AS USSR, for discussion. There are 2 tables and 15 refer-

Card 4/6

APPROVED FOR RELEASE: 06/20/2000 CIA-RDP86-00513R001446420010-9"

"APPROVED FOR RELEASE: 06/20/2000 CIA-RDP86-00513R001446420010-9

21103

Heat of ...

S/069/61/023/002/006/008
B101/B208

ences: 12 Soviet-bloc and 3 non-Soviet-bloc. The 2 references to English-language publications read as follows: F. P. Buff, J. Chem. Phys. 19, 1591, 1951; 23, 419, 1955.

ASSOCIATION: Tul'skiy mekhanicheskiy institut (Tula Institute of Mechanics)
Kishinevskiy universitet (Kishinev University)

SUBMITTED: December 28, 1959

Card 5/6

APPROVED FOR RELEASE: 06/20/2000 CIA-RDP86-00513R001446420010-9"

"APPROVED FOR RELEASE: 06/20/2000 CIA-RDP86-00513R001446420010-9

21103

Heat of ...

S/069/61/023/002/006/008
B101/B208

Legend to Table 2: 1) substance; 2) calculated temperature; 3) densities, g/cm^3; a) solid; b) liquid; 4) specific heat, joule/g; 5) ε_∞ for melt, erg/cm^2; 6) ε_{solid}, erg/cm^2; 7) NaCl; 8) KCl; 9) ice; 10) sulfur; 11) Bi; 12) Cd; 13) Sn

(1) Вещество	(2) Расчетная температура, °C	(3) Плотности, г/см³		(4) Удельная теплота, дж/г		(5) ε_∞ для расплава, эрг/см²	(6) $\varepsilon_{т,\infty}$ эрг/см²
		$\delta_т$ (a)	$\delta_ж$ (b)	p_∞	λ_∞		
(7) Хлористый натрий	804	1,907	1,541	3599	3082	166	224
(8) Хлористый калий	772	1,784	1,524	3000	2690	156	201
(9) Лед	0	0,917	0,999	2494	2160	114	125
(10) Сера	119	1,940	1,805	496	459	85	97
(11) Висмут	270	9,68	10,00	717	674	417	434
(12) Кадмий	321	8,64	8,02	983	937	670	739
(13) Олово	232	7,19	6,97	2375	2317	576	603

Card 6/6

APPROVED FOR RELEASE: 06/20/2000 CIA-RDP86-00513R001446420010-9"

"APPROVED FOR RELEASE: 06/20/2000 CIA-RDP86-00513R001446420010-9

RYKOV, V.I.; ANTONENKO, T.I.

Relation between sublimation and hardness. Izv.vys.uch.zav.; fiz. no.4:173 '62. (MIRA 15:9)

1. Kishinevskiy gosudarstvennyy universitet.
(Sublimation (Physical sciences)) (Hardness)

APPROVED FOR RELEASE: 06/20/2000 CIA-RDP86-00513R001446420010-9"

"APPROVED FOR RELEASE: 06/20/2000 CIA-RDP86-00513R001446420010-9

RYKOV, V.I.

Speed of sound in liquid and the surface energy. Zhur. fiz. khim. 39 no.4:938-941 Ap '65. (MIRA 19:1)

1. Kishinevskiy gosudarstvennyy universitet. Submitted Dec. 4, 1963.

APPROVED FOR RELEASE: 06/20/2000 CIA-RDP86-00513R001446420010-9"

"APPROVED FOR RELEASE: 06/20/2000 CIA-RDP86-00513R001446420010-9

RYKOV, V.I.; SHEYNFEL'D, V.L.; YAKOVLEVA, G.S.

The Frenkel' - Gubanov formula and the interrelation between the speed of sound, the heat of vaporization, and the surface energy. Uch. zap. Kish. un. 75:31-34 '64. (MIRA 18:10)

APPROVED FOR RELEASE: 06/20/2000 CIA-RDP86-00513R001446420010-9"

"APPROVED FOR RELEASE: 06/20/2000 CIA-RDP86-00513R001446420010-9

L 02360-67 EWT(1)/EWT(m)/EWP(j) IJP(c) WW/JW/RM

ACC NR: AR6021881 (N) SOURCE CODE: UR/0124/66/000/003/B125/B125

45
B

AUTHOR: Sheynfel'd, V. L.; Rykov, V. I.

TITLE: Thermal conductivity of normal fluids and its correlation with other physical parameters

SOURCE: Ref. zh. Mekhanika, Abs. 3B827

REF SOURCE: Uch zap. Kishinevsk. un-t, v. 69, 1964, 30-34

TOPIC TAGS: thermal conductivity, normal fluid, heat of vaporization, refractive index, surface energy

ABSTRACT: Formulas are derived for correlating the thermal conductivity of fluids with the heat of vaporization, specific surface energy, and the speed of sound in the fluid. The relationship of the speed of sound in the fluid to the total free surface energy was obtained. It is shown that this correlation produces a temperature dependence of the speed of sound which is in better agreement with the experimental results than the well known equations of Altenburg and Auerbach. A correlation is obtained for the speed of sound in the fluid and its refractive index. [Translation of abstract]

SUB CODE: 20/

Card 1/1

APPROVED FOR RELEASE: 06/20/2000 CIA-RDP86-00513R001446420010-9"

"APPROVED FOR RELEASE: 06/20/2000 CIA-RDP86-00513R001446420010-9

L 47447-66 EWT(1) IJP(c) WW/GG

ACC NR: AR6000703 SOURCE CODE: UR/0124/65/000/009/B027/B027

52
B

AUTHOR: Rykov, V. I.

TITLE: Connection between acoustic velocity and some volumetric and surface parameters of liquid phases

SOURCE: Ref. zh. Mekhanika, Abs. 9B183

REF: SOURCE: Uch. zap. Kishinevsk. un-t. v. 75, 1964, 26-30

TOPIC TAGS: acoustic velocity, pressure distribution, phase change, temperature distribution, LIQUID PROPERTY

ABSTRACT: It is shown that, for liquids whose internal pressure p_m can be defined by the formula $p_m = \varphi(T)/v^{n(T)}$, ($\varphi(T)$ is a function of temperature, v is the gram-molecular volume), the exponent n(T) is a function of temperature of the form $n(T) = 1/\alpha T$, where α is the thermal expansion coefficient and T is the absolute temperature. On the other hand, for the Van-der-Waal forces for intermolecular interactions the Stefan equation is used, $p_m = \Delta H \rho$ (ΔH is the specific heat of vaporization, ρ is the density). Using the above expressions, the author introduces the following formula for the acoustic velocity $u^2 = C_0 \Delta H / \alpha T (C_p - \alpha \Delta H)$ (C_p is the specific heat at constant pressure for 1 gram-mole). From the relation between molecular pressure and surface energy the author obtains another relationship between the velocity and the liquid parameters $u = W \sqrt{\frac{\varepsilon v^{2/3}}{\rho \alpha T}}$, where ε is the specific surface energy, and W can be considered a constant. I. Chaban [Translation of abstract]

SUB CODE: 20

Card 1/1 afs

APPROVED FOR RELEASE: 06/20/2000 CIA-RDP86-00513R001446420010-9"

"APPROVED FOR RELEASE: 06/20/2000 CIA-RDP86-00513R001446420010-9

RYBOV, V.I.; SHRYNFEL'D, V.A.

Application of the Frenkel'-Gubanov formula to normal fluids with polyatomic molecules. Izv. vys. ucheb. zav.; fiz. 8 no.1: 108-111 '65. (MIRA 18:12)

1. Kishinevskiy gosudarstvennyy universitet. Submitted October 25, 1963.

APPROVED FOR RELEASE: 06/20/2000 CIA-RDP86-00513R001446420010-9"

"APPROVED FOR RELEASE: 06/20/2000 CIA-RDP86-00513R001446420010-9

RYKOV, V.I.; CHUBUR, V.P.

Some empirical formulas concerning surface energy, heat of vapor formation, and density of nonassociated liquid. Uch. zap.Kish.un. 68:52-60 '63 [cover '64].

(MIRA 18:12)

APPROVED FOR RELEASE: 06/20/2000 CIA-RDP86-00513R001446420010-9"

"APPROVED FOR RELEASE: 06/20/2000 CIA-RDP86-00513R001446420010-9

RYKOV, V.I.

Reduced density as a function of reduced temperature.
Uch.zap.Kish.un. 69:26-29 '64. (MIRA 18:12)

APPROVED FOR RELEASE: 06/20/2000 CIA-RDP86-00513R001446420010-9"

"APPROVED FOR RELEASE: 06/20/2000 CIA-RDP86-00513R001446420010-9

SHEYNFEL'D, V.L.; NYKOV, V.I.

Heat conductivity of normal fluids and its relation to certain other physical parameters. Uch.zap.Kish.un. 69:30-34 '64. (MIRA 18:12)

APPROVED FOR RELEASE: 06/20/2000 CIA-RDP86-00513R001446420010-9"

"APPROVED FOR RELEASE: 06/20/2000 CIA-RDP86-00513R001446420010-9

ANTONENKO, T.I.; RYKOV, V.I.

Determining entropy changes in evaporation and sublimation. Izv. vys. ucheb. zav.; fiz. no.6:104-109 '63. (MIRA 17:2)

1. Kishinevskiy gosudarstvennyy universitet.

APPROVED FOR RELEASE: 06/20/2000 CIA-RDP86-00513R001446420010-9"

"APPROVED FOR RELEASE: 06/20/2000 CIA-RDP86-00513R001446420010-9

ACCESSION NR: AP4025092 S/0139/63/000/006/0104/0109

AUTHORS: Antonenko, T. I.; Ryzkov, V. I.

TITLE: Calculating entropy changes in evaporation and sublimation

SOURCE: IVUZ. Fizika, no. 6, 1963, 104-109

TOPIC TAGS: entropy change, evaporation, sublimation, transition layer, potential energy, Boltzmann distribution

ABSTRACT: A new analytic method for measuring entropy changes during evaporation and sublimation which requires knowledge of the molar volume of only one phase has been described. The method is based on the fact that between the volume of the two phases in equilibrium there exists a transition layer where all parameters change abruptly, especially the density ρ and the potential energy u of the molecule, i.e., from ρ_1 and u_1 to ρ_2 and u_2. The analysis is carried out in two steps: 1) the molecules transfer from the first phase into the transition layer, and 2) the molecules move out of the transition layer into the second phase. Under the assumption of a Boltzmann distribution for the molecules in either phase and a

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"APPROVED FOR RELEASE: 06/20/2000 CIA-RDP86-00513R001446420010-9

ACCESSION NR: AP4025092

linear dependence of molecular potential energy in the transition layer, an expression is derived for the transition layer thickness. Furthermore, universal functions are derived and tabulated

$$\Phi(\rho_2/\rho_1) = \frac{R \cdot F(\rho_2/\rho_1)}{(\rho_1/\rho_2 - 1)}$$

to enable the determination of values of L/T, ρ_2/ρ_1, and the signs of dp/dT and v_1. Orig. art. has: 18 formulas, 3 tables, and 1 figure.

ASSOCIATION: Kishinevskiy gosuniversitet (Kishinev State University)

SUBMITTED: 09Jul62 DATE ACQ: 14Feb64 ENCL: 00

SUB CODE: PH NO REF SOV: 002 OTHER: 000

Card 2/2

APPROVED FOR RELEASE: 06/20/2000 CIA-RDP86-00513R001446420010-9"

"APPROVED FOR RELEASE: 06/20/2000 CIA-RDP86-00513R001446420010-9

RYKOV, V.I.

Velocity of sound in liquids and the heat of vaporization. Zhur. fiz. khim. 37 no.5:1137-1138 My '63. (MIRA 17:1)

1. Kishinevskiy gosudarstvennyy universitet.

APPROVED FOR RELEASE: 06/20/2000 CIA-RDP86-00513R001446420010-9"

"APPROVED FOR RELEASE: 06/20/2000 CIA-RDP86-00513R001446420010-9

S/058/63/000/003/056/104
A062/A101

AUTHOR: Rykov, V. I.

TITLE: Contribution to the question of relationship between the vaporization heat and the surface energy of some metals

PERIODICAL: Referativnyy zhurnal, Fizika, no. 3, 1963, 11, abstract 3E74 ("Tr. po fiz. poluprovodnikov. Kishinevsk. un-t", 1962, no. 1, 142 - 145)

TEXT: A correlation is established between the concentration of the total surface energy and the vaporization heat of metals of the 1st, 2nd, 3rd, 4th and 5th groups of Mendeleyev's table. It is shown that the gram atomic total vaporization heat is directly proportional to the concentration of the total surface energy, the coefficient of proportionality changing at the passage from one group of Mendeleyev's table to another.

[Abstracter's note: Complete translation]

Card 1/1

APPROVED FOR RELEASE: 06/20/2000 CIA-RDP86-00513R001446420010-9"

"APPROVED FOR RELEASE: 06/20/2000 CIA-RDP86-00513R001446420010-9

L 9893-63 EPF(c)/BDS/EWT(m)--Pr-4--WW/JW
ACCESSION NR: AP3000425 S/0076/63/037/005/1137/1138

AUTHOR: Rykov, V. I. 56

TITLE: Speed of sound in a liquid and vaporization temperature 55

SOURCE: AN SSSR. Zhurnal fizicheskoy khimii, v. 37, no. 5, 1963, 1137-1138

TOPIC TAGS: speed of sound in a liquid, coefficient of isothermic expansion

ABSTRACT: Author briefly discusses the connection between speed of sound in a liquid and coefficient of isothermic expansion, density, and head capacity and shows this interrelation by means of a thermodynamic equation. He then develops an equation of his own and states that the interrelationship between the speed of sound and specific vaporization temperature has already been presented in another form (B. B. Kudryavtsev, Zh. fiz. khimii, 29, 671, 1955). Author concludes by stating that a new equation has been obtained which fixes the interrelationship between the speed of sound propagation in an unassociated liquid, vaporization temperature, thermal coefficient of expansion and head capacity at constant pressure. By using nine organic liquids as a sample, it was found that the equation is in harmony with experimental data. Orig. art. has: 4 equations and 1 table.

Card 1/2

APPROVED FOR RELEASE: 06/20/2000 CIA-RDP86-00513R001446420010-9"

"APPROVED FOR RELEASE: 06/20/2000 CIA-RDP86-00513R001446420010-9

L 16702-65 EWT(1)/EPA(s)-2/EPF(n)-2/EWG(v)/EPR/EWA(1) Pe-5/Ps-4/Pt-10/
Pu-4 ESD(t)/AEDC(a)/SSD/AFWL/RAEM(a) WW

ACCESSION NR: AR5000791 S/0058/64/000/010/E006/E006

SOURCE: Ref. zh. Fizika, Abs. 10E43

AUTHORS: Sheynfel'd, V. L.; Rykov, V. I.

TITLE: Thermal conductivity of normal liquids, and its connection with some other physical parameters

CITED SOURCE: Uch. zap. Kishinevs. un-t., v. 69, 1964, 30-34

TOPIC TAGS: thermal conductivity, liquid state, speed of sound, refractive index, surface energy, temperature dependence

TRANSLATION: Formulas are obtained relating the coefficient of thermal conductivity of a liquid with the heat of evaporation, the specific surface energy, and the speed of sound in the liquid. A relation is obtained between the speed of sound in the liquid and the total free surface energy. It is shown that this relation gives the temperature dependence of the speed of sound, which is in much better agreement with experiment than the known formulas of Altenburg

Card 1/2

APPROVED FOR RELEASE: 06/20/2000 CIA-RDP86-00513R001446420010-9"

"APPROVED FOR RELEASE: 06/20/2000 CIA-RDP86-00513R001446420010-9

L 16702-65
ACCESSION NR: AR5000791

and Auerbach. A relation is obtained between the speed of sound in the liquid and its refractive index.

SUB CODE: GP, TD ENCL: 00

Card 2/2

APPROVED FOR RELEASE: 06/20/2000 CIA-RDP86-00513R001446420010-9"

"APPROVED FOR RELEASE: 06/20/2000 CIA-RDP86-00513R001446420010-9

L 16709-65 EWT(1)/EPF(n)-2/EWG(v)/EPR Pe-5/Ps-4/Pu-4 WW
ACCESSION NR: AR5000790 S/0058/64/000/010/E005/E005

SOURCE: Ref. zh. Fizika, Abs. 10E35

B

AUTHORS: Rykov, V. I.

TITLE: Reduced density as a function of the reduced temperature

CITED SOURCE: Uch. zap. Kishinevsk. un-t, v. 69, 1964, 26-29

TOPIC TAGS: liquid density, vapor density, temperature dependence, reduced temperature

TRANSLATION: The author proposes for the difference of the reduced densities of the liquid and vapor on the saturation line the empirical formula

$$\gamma-\gamma'=n\left(\frac{1-\tau}{1+\tau}\right)^{1/4},$$

where τ -- reduced temperature and n -- numerical factor close to 4. The combination of this formula with the Bachinskiy formula for the surface tension (σ) yields

Card 1/2

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"APPROVED FOR RELEASE: 06/20/2000 CIA-RDP86-00513R001446420010-9

L 16709-65
ACCESSION NR: AR5000790

$$\sigma = \sigma_0 \left(\frac{1-\tau}{1+\tau}\right).$$

L Filippov.

SUB CODE: ME, TD ENCL: 00

Card 2/2

APPROVED FOR RELEASE: 06/20/2000 CIA-RDP86-00513R001446420010-9"

"APPROVED FOR RELEASE: 06/20/2000 CIA-RDP86-00513R001446420010-9

ACC NR: AR7000853 SOURCE CODE: UR/0058/66/000/009/E007/E007

AUTHOR: Rykov, V. I.

TITLE: Interrelation between the speed of sound in the liquid phase and its surface energy

SOURCE: Ref. zh. Fizika, Abs. 9E60

REF SOURCE: Sb. Poverkhnostn. yavleniya v rasplavakh i voznikayushchikh na nikh tverd. fazakh. Nal'chik, 1965, 94-99

TOPIC TAGS: acoustic speed, specific heat, heat coefficient, heat expansion, ultrasonic velocity, surface energy

ABSTRACT: On the basis of the "hole" liquid theory, an equation for the relationship between the speed of sound in liquids and the full surface energy of a "hole", molar volume, specific heat c_p, thermal expansion coefficient, and temperature has been derived by using well-known thermodynamic correlations. The results of theoretical calculations are compared with experimental values for ultrasonic velocity for eleven organic liquids. The disagreement with tabular values does not

Card 1/2

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"APPROVED FOR RELEASE: 06/20/2000 CIA-RDP86-00513R001446420010-9

ACC NR: AR7000853

exceed 10%. This equation gives a somewhat greater divergence from the experimental data in the case of molten salts of alkali metals near the melting point.
I. Perepechko. [Translation of abstract] [NT]

SUB CODE: 20/

Card 2/2

APPROVED FOR RELEASE: 06/20/2000 CIA-RDP86-00513R001446420010-9"

"APPROVED FOR RELEASE: 06/20/2000 CIA-RDP86-00513R001446420010-9

RYKOV, V.P., podpolkovnik meditsinskoy sluzhby; KIRUSHEV, A.A., gvardii starshiy leytenant meditsinskoy sluzhby

Headpiece for testing the ability to hear whispered speech. Voen.-med. zhur. no.5:81-82 My '56. (MLRA 9:9)
(HEARING--TESTING)

APPROVED FOR RELEASE: 06/20/2000 CIA-RDP86-00513R001446420010-9"

"APPROVED FOR RELEASE: 06/20/2000 CIA-RDP86-00513R001446420010-9

RYKOV, V.P., leytenant

How we achieved faultless operation at a radar station.
Vest. protivovozd. obor. no.6:46-47 Je '61. (MIRA 14:8)
(Radar, Military)

APPROVED FOR RELEASE: 06/20/2000 CIA-RDP86-00513R001446420010-9"

"APPROVED FOR RELEASE: 06/20/2000 CIA-RDP86-00513R001446420010-9

BRONSHTEYN, O.I. (Moskva); RAYKIN, A.L. (Moskva); RYKOV, V.V. (Moskva)

One lane queueing system with losses. Izv. AN SSSR. Tekh. kib. no.4:45-51 Jl-Ag '65. (MIRA 18:11)

APPROVED FOR RELEASE: 06/20/2000 CIA-RDP86-00513R001446420010-9"

"APPROVED FOR RELEASE: 06/20/2000 CIA-RDP86-00513R001446420010-9

50 c

L 41182-65 EWT(d)/EWP(c)/EWP(v)/T/EWP(k)/EWP(1) Pf-4
ACCESSION NR: AP5004677 S/0115/64/000/009/0058/0059

70
18
B

AUTHOR: none

TITLE: Fourth scientific and technical conference on "Cybernetics for the improvement of measurement and inspection methods"

SOURCE: Izmeritel'naya tekhnika, no. 9, 1964, 58-59

TOPIC TAGS: cybernetics, electric measurement, electric quantity instrument, digital computer, electronic equipment, electric engineering conference

ABSTRACT: The conference was held 1-4 July at the All-Union Scientific Research Institute of Metrology by the Section of Electrical Measurements of the Council on the Problem of "Scientific Instrument Making" of the State Committee on Coordination of Scientific Research Work in the USSR together with the All-Union Scientific Research Institute of Electrical Measurement Instruments and the Leningrad Regional Administration of the Scientific and Technical Division of the Instrument Making Industry. More than 400 delegates from 29 cities of the country participated. Fifty-seven reports were heard and discussed. Reports were given by: P. V. NOVITSKIY (Leningrad)--"Definition of the Concept of Informational Error in Measurement and its Importance in Practical Use" and "On the Problem of the Average Informational Criterion of Accuracy Throughout the Entire Scale of an Instrument"; Ya. A.

Card 1/4

APPROVED FOR RELEASE: 06/20/2000 CIA-RDP86-00513R001446420010-9"

"APPROVED FOR RELEASE: 06/20/2000 CIA-RDP86-00513R001446420010-9

L 41182-65
ACCESSION NR: AP5004677

17

KUPERSHMIDT (Moscow)--"On Determination of the Criteria of Accuracy for Measurement Devices"; S. M. MANDEL'SHTAM (Leningrad)--report on a new criterion of accuracy of measurement instruments; P. F. PARSHIN (Leningrad)--report on optimization when using Fourier transforms on electronic digital computers; S. P. DMITRIYEV, G. Ya. DOLGINTSEVA and A. A. IGNATOV (Leningrad)--proposal of a new method for solving problems of optimum filtering for non-stationary random signals and interference; I. B. CHELPANOV--"Calculation of the Dynamic Characteristics of an Optimum Complex Two-Channel System which Uses Signals from a Position Meter and from a Speed Meter"; R. A. POLUEKTOV (Leningrad)--"Optimum Periodic Correction in the Measurement of Continuous Signals"; S. P. ADAMOVICH (Moscow)--"Analysis and Construction of Devices for Correction of Non-linearity and Scaling for Unitary Codes; G. V. GORELOVA (Taganrog)--"A Method for Statistical Optimization in Graduating the Scales of Electrical Measuring Instruments"; M. A. ZEMEL'MAN (Moscow)--"Analog-Digital Voltage Converter with Automatic Error Correction"; B. N. MALINOVSKIY, V. S. KALENCHUK and I. A. YANOVICH (Kiev)--"Automatic Monitoring of the Parameters of the Electrical Signals of Complex Radio and Electronic Equipment"; V. P. PEROV (Moscow)--"Operational Cybernetics as an Independent Scientific Specialization"; Ye. N. GIL'BO (Leningrad)--"On the Problem of Effective Non-linear Scales"; A. I. MARKELOV (Moscow)--"Devices for Preliminary Processing of the Results of Measurements Presented in the Form of

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APPROVED FOR RELEASE: 06/20/2000 CIA-RDP86-00513R001446420010-9"

"APPROVED FOR RELEASE: 06/20/2000 CIA-RDP86-00513R001446420010-9

L 41182-65

ACCESSION NR: AP5004677

20

Graphic Recordings For Subsequent Introduction of the Information into Universal Digital Computers"; O. M. MOGILEVER and S. S. SOKOLOV (Leningrad)--"On a Method for Reducing Excess Information"; T. V. NIKOLAYEVA (Leningrad)--"A Device for Temporal Discretization of Continuous Signals"; A. A. LYOVIN and M. L. BULIS (Moscow)--"Optimization of the Transmission of Telemetric Information as a Means for Raising the Efficiency and Eliminating Interference"; D. E. GUKOVSKIY (Moscow)--"On a Statistic Approach to the Detection of Events in Automatic Inspection"; M. I. LANIN (Leningrad)--"Method for Calculating the Holding Time of Communications in a Centralized Inspection System or Constant Servicing Time"; O. N. BRONSHTEYN, A. L. RAYKIN and V. V. RYKOV (Moscow)--"On a Single-Line Mass Service System with Losses"; V. M. SHLYANDIN (Penza)--report on circuit designs for direct compensation electrical digital measuring instruments; A. N. KOMOV (Novocherkassk)--report on a new method for compensation of digital bridges; M. N. GLAZOV (Leningrad)--report on the problem of voltage-to-angular rotation conversion; V. S. GUTNIKOV (Leningrad)--"Methods for Construction of Frequency Capacitance Pickups with a Linear Scale"; R. Ya. SYROPYATOVA and R. R. KHARCHENKO (Moscow)--report on the determination of the amplitude-frequency and phase characteristics of PFM and PWM modulators; Ye. I. TENYAKOV (Novocherkassk)--"The Phototransistor as a Switch for Electrical Measurement Purposes"; N. V. MALYGINA (Leningrad)--a report on ways for making universal equipment for measurement of current, voltage and power; P. P. ORNATSKIY and V. I. ZOZULYA (Kiev)--reports on the construction of static voltmeters, wattmeters and

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"APPROVED FOR RELEASE: 06/20/2000 CIA-RDP86-00513R001446420010-9

L 41182-65

ACCESSION NR: AP5004677

15

phase motors; A. V. TRIKHANOV, I. G. SMYSHLYAYEV, N. I. SABLIN, V. M. RAZIN and V. A. GORBUNOV (Tomsk)--report on a device for automatic processing of the measurements of vibration amplitude of pneumatic hammers; L. K. RUKINA and V. G. KNORRING (Leningrad) --report on the development of a digital compensator for measuring pressure, force, etc.; N. B. DADUKINA (Leningrad)--report on a method for constructing frequency pickups for gas analysis; Yo. M. KARPOV, V. A. BRAZHNIKOV and B. Ya. LIKHTTSINDER (Kuybyshev)--reports on analysis and recording of boring speeds; Yu. V. PSHENICHNIKOV (Kuybyshev)--"A High Speed Voltage-to-Digital Code Converter for ac Pickups"; G. P. VIKHROV and V. K. ISAYEV (Vilna)--"A Highly Accurate Digital Peak-to-Peak Voltmeter"; and S. M. PERSIN (Leningrad)--"A Low Level Analog-Digital Voltage Convertor."

ASSOCIATION: none

SUBMITTED: 00 ENCL: 00 SUB CODE: EE, EC

NO REF SOV: 000 OTHER: 000 JPRS

me

Card 4/4

APPROVED FOR RELEASE: 06/20/2000 CIA-RDP86-00513R001446420010-9"

"APPROVED FOR RELEASE: 06/20/2000 CIA-RDP86-00513R001446420010-9

RYKOV, Ye.A., inzh.; YUR'YEV, L.B., inzh.

Constructing experimental rectangular culverts. Transp. stroi. 15 no.1:15-17 Ja '65. (MIRA 18:3)

APPROVED FOR RELEASE: 06/20/2000 CIA-RDP86-00513R001446420010-9"

"APPROVED FOR RELEASE: 06/20/2000 CIA-RDP86-00513R001446420010-9

SELYUTIN, V.; LESNIKOV, N.; RAYEVICH, V.; GUREVICH, V.; KRAVTSEV, A. (Bryansk); REVUNOV , M. (g. Ramenskoye, Moskovskoy oblasti); NAZAROV, P.; RYKOV, Yu.; MIN, A.; IGNATENKO, N.

Letters on various subjects. Mest. prom. i khud. promys. 3 no.8:30-31 Ag '62. (MIRA 15:10)

1. Starshiy inzhener Glavbelmostproma, g. Minsk (for Selyutin).
2. Glavnyy inzhener shveynogo kombinata "Pobeda", g. Ulan-Ude (for Gurevich).

(Industries)

APPROVED FOR RELEASE: 06/20/2000 CIA-RDP86-00513R001446420010-9"

"APPROVED FOR RELEASE: 06/20/2000 CIA-RDP86-00513R001446420010-9

GAVRILOV, G.M.; RYKOV, V.Ya.

Device for controlling cooling units for metal-cutting tools. Mashinostroitel' no.3:29-30 Mr '65. (MIRA 18:4)

APPROVED FOR RELEASE: 06/20/2000 CIA-RDP86-00513R001446420010-9"

"APPROVED FOR RELEASE: 06/20/2000 CIA-RDP86-00513R001446420010-9

SAVINSKIY, K.F.; RYKOVA, A.N.

Field history book. Zemledelie 27 no.3:70-73 Mr '65.
(MIRA 19:1)

APPROVED FOR RELEASE: 06/20/2000 CIA-RDP86-00513R001446420010-9"

"APPROVED FOR RELEASE: 06/20/2000 CIA-RDP86-00513R001446420010-9

RYKOVA, A.V., kand. tekhn. nauk; RUDOY, Ye.I.

Galvanizing in zinc-phosphate electrolytes. Metallov. i obr. met. no.8:33-37 Ag '57. (MIRA 10:12)

1. TSentral'nyy nauchno-issledovatel'skiy institut tekhnologii i mashinostroyeniya.
(Galvanizing) (Zinc phosphates)

APPROVED FOR RELEASE: 06/20/2000 CIA-RDP86-00513R001446420010-9"

"APPROVED FOR RELEASE: 06/20/2000 CIA-RDP86-00513R001446420010-9

RYKOVA, A. V. Cand of Tech Sci

"Effect of Technological Factors on Internal Stress in the Electrolytic Deposition of Chromium," one of eight articles appearing in the book: "Investigation of the Stress Corrosion of Metals," edited by G.V.Akimov, Mashgiz, Moscow, 1953.

Central Sci. Res. Inst. of Tech. and Machine Bldg.

Translation L-31586, 15 Dec 55

A second article for this same author is: "Effect of Technological Factors on Internal Stresses in Nickel Plating,"

APPROVED FOR RELEASE: 06/20/2000 CIA-RDP86-00513R001446420010-9"

"APPROVED FOR RELEASE: 06/20/2000 CIA-RDP86-00513R001446420010-9

RYKOVA, A. V., Engineer

"Investigation of the Effect of Technological Factors on the Internal Stresses in Electrolytic Deposits of Chrome and Nickel." Sub 7 Jan 52, Central Sci Res Inst of Technology and Machine Building (TsNIITMash)

Dissertations presented for science and engineering degrees in Moscow during 1951.

SO: Sum. No. 480, 9 May 55

APPROVED FOR RELEASE: 06/20/2000 CIA-RDP86-00513R001446420010-9"

"APPROVED FOR RELEASE: 06/20/2000 CIA-RDP86-00513R001446420010-9

RYKOVA, A.V.

Effect of technological factors on internal strains in electrolytic chrome coatings. A. V. Rykova. *Sbornik Issledovanie Korrozii Metal. pod Napryazheniem* (Mashgiz) 1953, 47-84; *Referat. Zhur., Khim.* 1954, No. 38328.—Effect of c.d. and bath temp. on internal strains in Cr plates deposited from a bath contg. CrO_3 250 and H_2SO_4 2.5 g./l. on flat, flexible steel cathodes was studied. At 65°, max. internal strains were 37 kg./sq. mm. and corresponded to a c.d. of 80 amp./sq. dm. The smallest internal strains were 20 kg./sq. mm. and corresponded to 55° and 120 amp./sq. dm. As the temp. of the electrolyte increased, the microhardness and the internal strains decreased. Raising the concn. of CrO_3 from 250 to 420 g./l. lowered the internal strains by almost 20%. As the thickness of the Cr layer increased from 10 to 70 μ at 65° and 50 amp./sq. dm., the internal strains increased almost in a straight line. Lowering the temp. to 50° caused the appearance of a network of cracks in the Cr deposit. The internal strains decreased as the cleanliness of the coated surface improved. No correlation was observed between the amt. of H in the Cr coating and the internal strains. Internal strains lowered the limit of endurance of Cr-plated specimens. It was recommended to Cr plate at c.d. 25–35 and 80–100 amp./sq. dm. and 65 and 50–55°, resp. Heating at 400–50° removed internal strains without lowering the hardness. M. Hosch

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18(7) PHASE I BOOK EXPLOITATION SOV/2296

Tsentral'nyy nauchno-issledovatel'skiy institut tekhnologii i mashinostroyeniya

Korrosiya i zashchita metallov v mashinostroyenii (Corrosion and Protection of Metals in the Machine-building Industry) Moscow, Mashgiz, 1959. 347 p. (Series: Its: [Sbornik] kn. 92) 3,500 copies printed.

Ed.: A. V. Ryabchenkov, Doctor of Chemical Sciences, Professor; Ed. of Publishing House: A. I. Sirotin, Engineer; Tech. Ed.: B. I. Model'; Managing Ed. for Literature on Heavy Machine Building (Mashgiz): S. Ya. Golovin, Engineer.

PURPOSE: This collection of articles is intended for designers, technologists, and industrial and research workers concerned with corrosion and corrosion protection of metals.

COVERAGE: This collection of articles deals with problems of corrosion and metal protection under investigation at TsNIITMASh during the past two years. The articles discuss stress corrosion, intergranular corrosion, scale and heat resistance of austenitic steels in gaseous media, protective coating, fretting corrosion, and resistance of metals to cavitation. No personalities are mentioned. References follow each article.

TABLE OF CONTENTS:

Nikiforova, V.N., N.I. Yeremin [Candidate of Physical and Mathematical Sciences], N.A. Rashetkina, and A.V. Yevgrafov [Engineer]. Method of Determining the Tendency of Steel Toward Intergranular Corrosion by Utilizing High-frequency Resonance Instruments 83

PART II. GAS CORROSION AND ITS EFFECT ON THE HEAT-RESISTANCE PROPERTIES OF AUSTENITIC STEELS

Davidovskaya, Ye.A. [Candidate of Technical Sciences], and L.P. Kastel' [Engineer]. Scale-resisting Alloy Steels in Different Gas Media 95
The authors discuss the mechanism of high-temperature oxidation of irons and steels in gas media, including temperatures, oxide films of austenitic steels, and rates of corrosion.

Kastel', L.P., and Ye.A. Davidovskaya. Effect of a Concentration of Sulfur Dioxide and Steam on the Corrosion of Austenitic Steels at High Temperatures 109

Davidovskaya, Ye.A. Long-time Rupture Strength of Alloy Steels in Superheated Steam 123
The author investigates the behavior of EYa1T and EI724 steels under the effect of steam at 575° to 610°C.

Maksimov, A.I. [Engineer], P.V. Sorokin [Engineer], and S.G. Vedenkin, [Professor]. Effect of Corrosive Gas Media on Long-time Rupture Strength of Austenitic Sheet Steels 139
The present investigation was made by the authors to determine the effect of fuel combustion products on three different cast steels used in gas turbine construction.

Nikiforova, V.N., N.A. Rashetkina, and V.S. Smurov [Engineer]. Study of Decay and Corrosion Resistance of Various Materials for Carbon Bisulfide Retorts Under Operating Conditions 158
The authors make recommendations for the most suitable metals for inner and outer linings of carbon bisulfide retorts.

Kovalev, Ye.A. [Engineer], and S.G. Vedenkin. Effect of Vanadium Contained in Heavy Fuel on Scale and Heat Resistance of Alloys Used in Gas Turbines 179
The authors present a survey of Soviet and non-Soviet literature on this subject and discuss methods of investigation.

PART III. PROTECTIVE COATINGS

Rykov, A.V. [Candidate of Technical Sciences], E.F. Zommer [Candidate of Technical Science], V.Ye. Khromov [Engineer] and Ye.I. Ruday [Senior Technician]. Investigating the Possibility of Applying Wear-resistant Chrome Plating to Worm Gears 210
Investigation is made on the basis of the similarity to the process of porous chrome plating of piston rings, cylinder sleeves of combustion engines, and other parts working under high friction.

Khromov, V.Ye. Effect of Chrome Plating on the Wear Resistance of Mating parts 224
The author studies the effect of cathodic current density and temperature of the electrolyte on the wear resistance of the deposit and the plated insert.

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APPROVED FOR RELEASE: 06/20/2000 CIA-RDP86-00513R001446420010-9"

"APPROVED FOR RELEASE: 06/20/2000 CIA-RDP86-00513R001446420010-9

RYKOVA, A.V., kand. tekhn. nauk; ZOMMER, E.F., kand.tekhn. nauk; KHROMOV, V.Ye., inzh.; RUDAYA, Ye.I., starshiy tekhnik

Investigating the possibility of using wear-resistant chromium plating in worm-gear transmissions. Trudy TSNIITMASH 92:210-223 '59. (MIRA 12:8)

(Chromium plating) (Gearing, Worm)

APPROVED FOR RELEASE: 06/20/2000 CIA-RDP86-00513R001446420010-9"

"APPROVED FOR RELEASE: 06/20/2000 CIA-RDP86-00513R001446420010-9

RYKOVA, A.V., kand. tekhn. nauk; RUDAYA, Ye.I., starshiy tekhnik

Zinc phosphate plating and its protective properties.
Trudy TSNIITMASH 92:232-237 '59. (MIRA 12:8)
(Zinc phosphates) (Protective coatings)

APPROVED FOR RELEASE: 06/20/2000 CIA-RDP86-00513R001446420010-9"

"APPROVED FOR RELEASE: 06/20/2000 CIA-RDP86-00513R001446420010-9

RYKOVA, A.V., ~~kand.~~ tekhn. nauk; BULATOV, I.A., inzh.; VEDENEYEV, D.M., tekhnolog

Chromium plating of large plates. Trudy TSNIITMASH 92:238-243 '59. (MIRA 12:8)

(Chromium plating)

APPROVED FOR RELEASE: 06/20/2000 CIA-RDP86-00513R001446420010-9"

"APPROVED FOR RELEASE: 06/20/2000 CIA-RDP86-00513R001446420010-9

RYKOVA, A.V., kand. tekhn. nauk; OSIPOVA, V.P., inzh.

Electroplating for protecting equipment under tropical climate conditions review of foreign research). Trudy TSNIITMASH 92:244-260 '59. (MIRA 12:8)

(Electroplating) (Tropics)

APPROVED FOR RELEASE: 06/20/2000 CIA-RDP86-00513R001446420010-9"

"APPROVED FOR RELEASE: 06/20/2000 CIA-RDP86-00513R001446420010-9

SOV/137-59-3-7191

Translation from: Referativnyy zhurnal. Metallurgiya, 1959, Nr 3, p 320 (USSR)

AUTHORS: Rykova, A. V., Rudaya, Ye. I.

TITLE: Electroplating With Zinc Containing Phosphorus and its Protective Properties (Gal'vanicheskoye pokrytiye tsinkom, soderzhashchim fosfor, i yego zashchitnyye svoystva)

PERIODICAL: Sb. Kom-t po korrozii i zashchite metallov Vses. sov. nauchno-tekhn. o-v, 1958, Nr 3, pp 108-111

ABSTRACT: The authors established the feasibility of depositing P-containing Zn plating from acid electrolytes (E) consisting (in g/liter) of ZnO 25-50 and H_3PO_4 100-200, with a cathode cd of 6-30 a/dm^2, 10-12 v potential, stirring by means of compressed air, and a 20-22°C temperature. The anodes are Pb. The least porous and densest deposits with the strongest adhesion to the parent metal were obtained with a cathode cd of 6-10 a/dm^2 from the above-mentioned E or with a cathode cd of 10-15 a/dm^2 from the E with an addition of 20-25 g/liter $Al_2(SO_4)_3$. Deposits of Zn 40-50 μ thick were obtained in 30-40 min. The P content in the deposit is 1.8-2.5%. Microhardness (measured with a PMT-3 apparatus) is 78-100 kg/mm^2. In 10-month

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SOV/137-59-3-7191

Electroplating With Zinc Containing Phosphorus and its Protective Properties

corrosion tests carried out in a moist chamber, a 15-day test in a corrosion chamber simulating tropical conditions, and a 6-month exposure under natural conditions in an industrial area, no corrosion products were found in Zn coating containing P, whereas Zn and Cd from conventional baths were corroded under tropical conditions and in an industrial atmosphere. The utilization of Zn coating as an undercoat under Cr is not recommended, especially for use under tropical conditions (network of cracks and Zn corrosion products).

A. I.

Card 2/2

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"APPROVED FOR RELEASE: 06/20/2000 CIA-RDP86-00513R001446420010-9

RYKOVA, A. V.

25586. RYKOVA, A.V.
Silitsirovaniye uglerodistoy stali. V sb: Korroziya, zashchita ot korrozii i elektroliz. M., 1948, s 77-85, -- Bibliogr: 8 Nazv.

SO: Letopis' Zhurnal Statey, No. 30, Moscow, 1948

APPROVED FOR RELEASE: 06/20/2000 CIA-RDP86-00513R001446420010-9"

"APPROVED FOR RELEASE: 06/20/2000 CIA-RDP86-00513R001446420010-9

RYKOVA, A. V.
25586

Silitsirovaniye uglerodistoy stali. V sb: Korroziya zashchita ot korrozii i elektroliz. M., 1948, s. 77-85.--Bibliogr: 8 Nazv.

SO: LETOPIS NO. 30, 1948

APPROVED FOR RELEASE: 06/20/2000 CIA-RDP86-00513R001446420010-9"

"APPROVED FOR RELEASE: 06/20/2000 CIA-RDP86-00513R001446420010-9

RYABCHENKOV, A.V., prof., doktor khim.nauk; KHROMOV, V.Ye., inzh.;
RYKOVA, A.V., kand.tekhn.nauk

Procedures for chromium plating of cylindrical worm shafts.
Vest. mash. 38; no.9:56-58 S '58. (MIRA 11:10)
(Chromium plating) (Gearing, Worm)

APPROVED FOR RELEASE: 06/20/2000 CIA-RDP86-00513R001446420010-9"

"APPROVED FOR RELEASE: 06/20/2000 CIA-RDP86-00513R001446420010-9

S/137/61/000/010/051/056
A006/A101

AUTHORS: Rykova, A.V., Rudaya, Ye.I.

TITLE: Zinc-phosphate galvanic coating and its protective properties

PERIODICAL: Referativnyy zhurnal. Metallurgiya, no. 10, 1961, 55, abstract 10I388 (V sb. "Korroziya i zashchita metallov v mashinostr.", TsNIITMASh, v. 92, Moscow, 1959, 232 - 237)

TEXT: The possibility was studied of obtaining Zn-coatings from acid and alkaline zinc-phosphate electrolytes, whose basic components are ZnO and H_3PO_4. The possibility was established of obtaining Zn-deposits, containing P, from acid electrolytes of the following composition (in g/l): ZnO 25 - 50; H_3PO_4 100 - 200, with admixtures of $Al_2(SO_4)_3$ when stirring the electrolyte. The possibility was also found of obtaining these deposits from alkaline electrolytes containing in g/l: ZnO 10, NaOH 20, NaCN 10 and trisodium phosphate 10, without stirring. Zn deposits with fine-crystalline structure were obtained at D_c 6 - 15 amp/dm^2 within 30 - 40 minutes of electrolysis. They were 40 - 50 μ thick and showed high protective properties. A dependence was established of the thickness of the deposited layer, on D_c and the time of electrolysis. The hardness

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of the layer varies within 78 - 100, and in case of Ni content attains 330. The layers of the coating are well polished by mechanical means with ГОИ (GOI) paste. Corrosion tests proved that the coating has high protective properties and can be successfully used for the reliable protection of articles under atmospheric conditions.

V. Tarisova

[Abstracter's note: Complete translation]

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"APPROVED FOR RELEASE: 06/20/2000 CIA-RDP86-00513R001446420010-9

Rykova, A. V.

AUTHORS: Rykova, A.V., Candidate of Technical Sciences and Rudoy, Ye.I. 129 - 8 - 9/16

TITLE: Producing zinc coatings in zinc-phosphate electrolytes. (Polucheniye tsinkovykh pokrytiy iz tsinkofosfatnykh elektrolitov).

PERIODICAL: "Metallovedeniye i Obrabotka Metallov" (Metallurgy and Metal Treatment), 1957, No.8, pp.33-37 (U.S.S.R.)

ABSTRACT: The authors studied the possibility of obtaining zinc coatings by means of acidic and alkaline zinc phosphate electrolytes. The authors used 5 litres of electrolyte; lead plates of 80 x 30 x 2 mm were used as anodes and steel plates 75 x 25 x 1 mm were used as cathodes. The steel plates used as cathodes were subjected to various surface treatments, namely, sand blasting, grinding and polishing. The electrolytes were produced from chemically pure and pure reagents, which are normally intended for analysis; the temperature of the electrolyte in all the experiments was 20 to 22 C. Three acidic baths and one alkaline bath were tested. It was established that it is possible to obtain zinc deposits containing phosphorus from acidic electrolytes in the case of stirring and from alkaline electrolytes without stirring. The thickness of the obtained zinc

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129 - 8 - 9/16

Producing zinc coatings in zinc-phosphate electrolytes.(Cont.)

deposits was up to 40 to 50 microns, with a fine crystalline structure and a current density of 6 to 15 A/dm^2 for a 5 to 10 mins electrolysis duration. The dependence was established of the thickness of the deposit layer on the current density and the duration of the electrolysis (graphs, Fig.1). The produced thin layer contains 0.06 to 1.88% P, the hardness of the layer varies between 78 and 100 g/mm^2 and if it contains nickel its hardness reaches 330 g/mm^2. The coating can be satisfactorily polished mechanically by using a paste. It was established that the produced coatings have very good anticorrosive properties and can be successfully applied for protecting components under atmospheric conditions and they can also be applied as an undercoat (instead of copper and nickel) in the case of decorative chromium plating of components.
There are 2 tables and 2 figures.

ASSOCIATION: TsNIITMASh.

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"APPROVED FOR RELEASE: 06/20/2000 CIA-RDP86-00513R001446420010-9

SHTERNINA, E.B.; RYKOVA, G.A.

Minimum on solubility isotherms. Zhur. neorg. khim. 10 no.9:2152-2155 S '65. (MIRA 18:10)

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"APPROVED FOR RELEASE: 06/20/2000 CIA-RDP86-00513R001446420010-9

ORECHKIN, D.; POPOVA, N.; RYKOVA, I.; SHEPOT'KO, O.

First experiments, first discoveries. Pozh.delo 9 no.2:25 F '63. (MIRA 16:3)

(Fire extinction—Chemical systems)

APPROVED FOR RELEASE: 06/20/2000 CIA-RDP86-00513R001446420010-9"

"APPROVED FOR RELEASE: 06/20/2000 CIA-RDP86-00513R001446420010-9

ORECHKIN, D.B.; POPOVA, N.V.; RYKOVA, I.S.; SHEPOT'KO, O.F.;
Prinimala uchastiye: MIKHAYLOVA, N.V.

Sulfonation of a hydrofined oil fraction in order to remove aromatic compounds. Nefteper. i neftekhim. no. 4:34-35 '64. (MIRA 17:5)

APPROVED FOR RELEASE: 06/20/2000 CIA-RDP86-00513R001446420010-9"

"APPROVED FOR RELEASE: 06/20/2000 CIA-RDP86-00513R001446420010-9

ORECHKIN, D.B., kand. tekhn. nauk; POPOVA, N.V., inzh.; SHEPOT'KO, O.F., inzh.; Prinimali uchastiye: MIKHAYLOVA, N.V., RYKOVA, I.S.

Effect of alkylolamide admixtures on the properties of alkyl aryl sulfonates. Masl.-zhir. prom. 28 no.10:27-28 O '62. (MIRA 16:12)

APPROVED FOR RELEASE: 06/20/2000 CIA-RDP86-00513R001446420010-9"

"APPROVED FOR RELEASE: 06/20/2000 CIA-RDP86-00513R001446420010-9

ORECHKIN, D.B.; POPOVA, N.V.; RYKOVA, I.S.; SHEPET'KO, O.F.; Prinimali uchastiye: BURKOVA, A.P.; MIKHAYLOVA, N.V.

Preparation of alkylaryl sulfonates from straight-run oil fraction. Khim.i tekh.topl.i masel 8 no.1:27-30 Ja '63. (MIRA 16:2)

(Petroleum--Refining) (Sulfonic acids)

APPROVED FOR RELEASE: 06/20/2000 CIA-RDP86-00513R001446420010-9"

"APPROVED FOR RELEASE: 06/20/2000 CIA-RDP86-00513R001446420010-9

RYKOVA, K. Ye., agronom-entomolog (Zernovoy, Rostovskoy obl.)

Cultivation practices as a method for exterminating weeds.
Zashch. rast. ot vred. i bol. 5 no.10:21-23 O '60.
(MIRA 16:1)

1. Vserossiyskiy nauchno-issledovatel'skiy institut mekhanizatsii i elektrifikatsii sel'skogo khozyaystva.

(Weed control)

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"APPROVED FOR RELEASE: 06/20/2000 CIA-RDP86-00513R001446420010-9

ACCESSION NR: AR4032177 S/0058/64/000/002/E004/E004

SOURCE: Ref. zh. Fiz., Abs. 2E28

AUTHOR: Ry*kova, L. I.

TITLE: Heat of evaporation, velocity of sound, and surface energy

CITED SOURCE: Uch. zap. Kishinevsk. un-t, v. 63, 1963, 45-49

TOPIC TAGS: evaporation, heat of evaporation, velocity of sound, sound velocity, surface energy, free surface energy, entropy change, Altenburg formula

TRANSLATION: A formula is proposed for the connection between the heat of evaporation and the free surface energy. The relation between the velocity of sound in a non-associated liquid and the change in entropy connected with the evaporation of the liquid is established. A formula is proposed for the connection between the ve-

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ACCESSION NR: AR4032177

locity of sound in a liquid and the free surface energy. It is shown that the Altenburg formula for the connection between the velocity of sound and the free surface energy does not incorporate the temperature dependence of the velocity of sound.

DATE ACQ: 31Mar64 SUB CODE: PH ENCL: 00

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"APPROVED FOR RELEASE: 06/20/2000 CIA-RDP86-00513R001446420010-9

KOROTKEVICH, A.V.; RYKOVA, L.I.; LOBANOV, N.I., kand.khim.nauk, spetsred.; KUKLEVA, Z., red.; POLONSKIY, S., tekhn.red.

[Manual on wine chemistry] Rukovodstvo po khimii vina. Pod obshchei red. L.I.Rykovoi. Kishinev, Gos.izd-vo Moldavii "Kartia Moldoveniaske," 1960. 393 p. (MIRA 14:1)
(Wine and wine making--Analysis)

APPROVED FOR RELEASE: 06/20/2000 CIA-RDP86-00513R001446420010-9"

"APPROVED FOR RELEASE: 06/20/2000 CIA-RDP86-00513R001446420010-9

RYLOVA, L.K.

SMELOV, N.S.; YEGOROV, G.I.; KOKOLIN, A.I.; KSANFOPULO, P.I.; RAKHMANOVA, N.V.; KRYLOVA, Ye.Ye.; RYKOVA, L.K.; PER, M.I.; PETRUSHEVSKIY, S.I.; PUSTOVAYA, A.I.; TUNGSKOVA, ~~A.I.; VELICHKO~~, Ye.V.; PLAVIT, P.Ya.; GOL'DENBERG, M.M.

Evaluation of results of the treatment of early syphilis according to 1949 scheme. Vest. vener., Moskva No.1:29-33 Jan-Feb 52. (CLML 21:4)

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Adhesive characteristics of mastic sealers. Stroi. mat. 10 no.2:7-9 F '64. (MIRA 17:6)

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ANISIMOV, I.A.; PINYAGIN, N.B.; RYKOVA, S.S.

Role played by the petroleum refining industry in the creation of major industrial chemical complexes. Khim.i tekh.topl.i masel 8 no.8:30-31 Ag '63. (MIRA 16:9)
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MARFUNIN, A.S.; RYKOVA, S.V.

Irrational twinning of potash feldspars. Dokl.AN SSSR 134 no.1: 171-174 S '60. (MIRA 13:8)

1. Institut geologii rudnykh mestorozhdeniy petrografii, mineralogii i geokhimii Akademii nauk SSSR. Predstavleno akademikom D.S. Korzhinskim.

(Feldspar)

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A004/A101

1.1950

AUTHOR: Rykova, S. V.

TITLE: Ultrasonic cleaning of components

PERIODICAL: Referativnyy zhurnal, Mashinostroyeniye, no. 4, 1962, 37, abstract 4B215 (V sb. "Primeneniye ul'trazvuka v tekhnol. mashinostr.", no. 2, Moscow, 1960, 111 - 112)

TEXT: The author describes the process of ultrasonic cleaning in the УЗВ -2 (UZV-2) (with the ПМС-6 [PMS-6] converter) and УЗВ -3 (UZV-3) (with two PMS-6 converters) baths. The converter supply source was the УЗГ -10 (UZG-10) generator. Components and assembly are cleaned in an aqueous 3 - 5 g/l sodium triphosphate solution with the surface-active ОП-7 (OP-7) or ОП-10 (OP-10) addition of 3 - 5 g/l for 3 - 5 minutes. Then they are washed in water at 30 - 40°C and air-blasted at a pressure of 2 - 3 atm. Assemblies of two - three materials (aluminum, steel and others) are dried in a pressure chamber at a pressure of 5 mm Hg for 5 minutes. Small components are immersed in the ultrasonic bath in baskets for 30 - 60 seconds. Up to 100 parts of small dimensions (1 - 5 mm) placed in 1 - 2 layers in a basket can be cleaned simultaneously. Com-

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ponents measuring 285 x 245 x 215 mm are placed singly on the bath bottom and during the cleaning process they are turned in such a way that each side faces the membrane. The cleaning time for each side amounts to 1 - 1.5 min. After this, the parts are washed and dried. Carbon-steel parts are pretreated in a 5 - 8% sodium nitrite solution to prevent corrosion, then they are dried in the air. Aluminum and alloy-steel parts are dried after the washing by air blasting. To remove scab and chips from difficult accessible apertures, the PMS-7 converter is used with an instrument for concentrating the ultrasonic oscillations. It is pointed out that the ultrasonic cleaning method makes it possible to clean simultaneously a great number of small parts with considerably less time spent (by a factor of 20 - 30).

[Abstracter's note: Complete translation]

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