

Further investigation of methodic ...

S/081/61/000/021/089/094
B107/B147

The asymmetry of the deformation cycle showed a considerable effect on the working capacity of rubber. The authors describe a method and device for testing rubber for fatigue with symmetrical shearing by producing torsional vibrations of the dumbbell sample. The curves for the fatigue strength as a function of the amplitude of dynamic deformation of shearing for NK and SKB rubber are intersecting. It is recommended to examine the fatigue properties of rubber with deformation amplitudes characteristic of the work of the material in the workpiece. The interaction of rubber with the medium, the appearance of local stress concentrations on the sample surface, and the asymmetry of the deformation cycle should be taken into account. [Abstracter's note: Complete translation.]

Card 2/2

RENNIENOVSKIY, P. P.

Mechanics, Celestial

Computation of higher derivatives of compound functions with one intermediate variable.,
Trudy GAIKh, 15, no. 2, 1950.

9. Monthly List of Russian Accessions, Library of Congress, April 195~~3~~₂, Uncl.

1. REZNIKOVSKIY, P. T.
2. USSR (600)
4. Least Squares
7. Solving normal equations in the method of least squares by successive elimination of unknowns. Soob. GAISH, No. 54, 1950.

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

1. REZNIKOVSKIY, P. T.
2. USSR (600)
4. Least Squares
7. One variant in the method of least squares for solving a system of normal equations. Soob. GAISH, No. 54, 1950.

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

1951, P. 1.

"Additive Theory of Periodical and Long-Periodic Perturbations in the Movement of Mercury." *Trudy Fiz. Matem. Nauk*, Moscow, Union of Soviet Socialist Republics, 1951.

Dissertation presented for science and engineering degree, Moscow, 1951.

SP: 10. 100, 1951.

REBNIKOVSKIY, P. T.

Defended his Candidates Dissertation in the Mechanics and Mathematics Faculty of Moscow State University on 7 May 1952.

Dissertation: "The Analytical Theory of Secular Long-Period Perturbations in the Motion of Mercury."

SO: Vestnik Moskovskogo Universiteta, Seriya Fiziko-Matematicheskikh i Yestestvennykh Nauk, No. 1, Moscow, Feb 1953, pp 151-157: transl. in ~~W-29782~~, 12 April 54, For off. use only.

REZNIKOVSKIY, P.T.

Gravitation interpretation of an internal variant of a once-regularized
restricted elliptical problem of three points. Trudy GAISH 21:57-90 '52.
(MLRA 7:6)

(Problem of three bodies)

REZNIKOVSKIY, P.T.

Resolution of the perturbation function of an internal variant of
a once-regularized planar restricted circular problem of three points
in Lagrangian elements. Trudy GAISH 21:91-114 '52. (MLRA 7:6)
(Problem of three bodies)

REZNIKOVSKIY, P.T.

Resolving the perturbation functions of the simplest regularized variants
of a planar restricted elliptical problem of three points. Trudy GAISH
21:159-173 '52. (MLRA 7:6)

(Problem of three bodies)

REZNIKOVSKIY, P.T.

5001

Stigolev, B. M., and Reznikovskii, P. T. On the application of Runge's method to the numerical solution of the equations of celestial mechanics. *Moskov. Gos. Univ. Spobst. Astr. Inst. no. 92* (1953), 3-22. (Russian)

1-F/W

The authors outline the method of Runge for numerical integration of differential equations and work out a number of variants especially useful for starting a table for the types of equations usually met with in celestial mechanics.

R. G. Langbarrel (Urbana, Ill.)

4E
LH

(1)

BAYEV, K.L.; SHISHAKOV, V.A.; REZNIKOVSKIY, P.T., redaktor; GAVRILOV,
S.S., tekhnicheskiiy redaktor.

[Elements of cosmography] Nachatki mirovedeniia. Izd. 4-a, perer. i
dop. Moskva, Gos. izd-vo tekhniko-teoret. lit-ry, 1954. 123 p.
(Cosmography) (MIRA 8:4)

KULIKOV, Konstantin Alekseyevich; REZNIKOVSKIY, P.T., redaktor; SAMSONENKO,
L.V., redaktor; AKHLAMOV, S.N., tekhnicheskii redaktor

[The fundamental constants of astronomy] Fundamental'nye postoiian-
nye astronomii. Moskva, Gos. izd-vo tekhniko-teoret. lit-ry, 1956.
340 p. (MLRA 9:7)
(Astronomy)

Re: Astronomiya P.T.
POPOV, Pavel Ivanovich; REZNIKOVSKIY, P.T., red.; MURASHOVA, N.Ya., tekhn.
red.

[Popular manual of practical astronomy] Obshchedostupnaia prakticheskaia astronomiia. Izd. 4, izpr. Moskva, Gos. izd-vo fiziko-matematicheskoi lit-ry, 1958. 159 p. (MIRA 11:6)
(Astronomy, Spherical and practical)

OGORODNIKOV, Kirill Fedorovich,;REZNIKOVSKIY, P.T.,red.;KRYUCHKOVA, V.N.,tekh.n.red.

[Dynamics of stellar systems] Dinamika zvezdnykh sistem. Moskva,
Gos. izd-vo fiziko-matematicheskoi lit-ry,1958. 627 p. (MIRA 11:12)
(Stars)

AUTHOR: Reznikovskiy, P.T.

SOV/42-13-6-18/33

TITLE: On the Region of Convergence of a Power Series Being the Solution of a Differential Equation (Ob oblasti skhodimosti stepennogo ryada, predstavlyayushchego resheniye differentsial'nogo uravneniya)

PERIODICAL: Uspekhi matematicheskikh nauk, 1958, Vol 13, Nr 6, pp 145-150 (USSR)

ABSTRACT: Given the differential equation
 (1) $\frac{dx}{dt} = X(x, t, \mu), \quad X(x, t, 0) \equiv 0.$

Let the initial condition be

(2) $x = \alpha$ for $t = t_0.$

(1) is written in the form

(3)
$$x = \alpha + \int_{t_0}^t X(x, t, \mu) dt$$

and the solution is set up as

(4) $x = \alpha + x_1 \mu + x_2 \mu^2 + \dots$

Card 1/3 On the interval $|t - t_0| \leq T$ let $\Phi(x, \mu)$ majorize the function

On the Region of Convergence of a Power Series Being the SOV/42-13-6-18/33
Solution of a Differential Equation

$X(x, t, \mu)$; let $\phi(x, 0) \equiv 0$. Beside of (3)

$$(5) \quad z = a + T\phi(z, \mu)$$

is considered as a majorizing equation, where $a = |\alpha|$. Then (4) is majorized by the series

$$(6) \quad z = a + z_1\mu + z_2\mu^2 + \dots,$$

where (6) represents the series expansion of z which is given implicitly by (5). The condition of convergence for (6) is

$$(7) \quad \frac{T\phi(z, \mu)}{z-a} \leq q < 1,$$

where $\mu > 0$, $z > a$. The investigation of the μ -interval on which (4) converges, is reduced to the investigation of the μ -values for which (7) is satisfied. It is stated that (4) converges uniformly for $|\mu| \leq \bar{\mu}$ and $|t-t_0| \leq \bar{T}$, where \bar{T} is a function of $\bar{\mu}$ which can be given explicitly. By an example it is shown that the proposed method admits a better estimation

Card 2/3

On the Region of Convergence of a Power Series Being the SOV/42-13-6-18/33
Solution of a Differential Equation

of the region of convergence than the application of the
Cauchy majorant.

There are 7 references, 6 of which are Soviet, and 1 French.

SUBMITTED: May 6, 1957

Card 3/3

REZNIKOVSKIY, P.T.

Generalized Lagrange's series for the implicit function of several independent variables. Trudy MGRI 36:175-187 '59. (MIRA 15:5)
(Series, Lagrange's) (Functions of several variables)

SHCHIGOLEV, Boris Mikhaylovich; REZNIKOVSKIY, P.T., red.; GAVRILOV,
S.S., tekhn.red.

[Mathematical processing of observation data] Matematicheskaya
obrabotka nabludeni. Moskva, Gos.izd-vo fiziko-matem.lit-ry,
1960. 344 p. (MIRA 13:6)
(Mathematics--Problems, exercises, etc.)

KOLYVAGIN, Aleksandr Alekseyevich; LIVSHIN, G.L., retsenzent;
REZNIKOVSKIY, P.T., kand. fiz.-mat. nauk, red.; YELISEYV,
M.S., red. izd-va; TIKHANOV, A.Ya., tekhn. red.; MODEL',
B.I., tekhn. red.

[Automation of computing operations] Avtomatizatsiia vychislitel'-
nykh robot. Moskva, Mashgiz, 1962. 502 p. (MIRA 16:1)
(Electronic computers) (Programming (Electronic computers))

RYABOV, Yuriy Aleksandrovich; REZHIKOVSKIY, P.T., red.; MURASHOVA,
N.Ya., tekhn. red.

[Motions of celestial bodies] Dvizheniia nebesnykh tel. Izd.2.,
dop. Moskva, Gos. izd-vo fiziko-matem. lit-ry, 1962. 215 p.
(MIRA 15:4)

(Mechanics, Celestial)

DUBOSHIN, Georgiy Nikolayevich; REZNIKOVSKIY, P.T., red.; PLAKSHE, L.Yu.,
tekhn. red.

[Celestial mechanics; basic problems and methods] Nebesnaya
mekhanika; osnovnye zadachi i metody. Moskva, Fizmatgiz, 1963.
586 p. (MIRA 16:5)

(Mechanics, Celestial)

GURE, Rafail Samoylovich; OVCHINSKIY, Boris Vladimirovich;
BENNIKOVSKIY, Pavel Tuv'yevich; GREVKOV, Ya.P., red.;
KAKHSHID-ZADE, R.A., red.

[Programming and computer mathematics] Programirovaniye
i vychislitel'naya matematika. Moskva, Nauka, 1969. 247 p.
(SIRA 15411)

DUBOSHIN, Georgiy Nikolayevich; REZNIKOVSKIY, P.T., red.

[Celestial mechanics; analytical and qualitative methods]
Nebesnaia mekhanika; analiticheskie i kachestvennye metody.
Moskva, Izd-vo "Nauka," 1964. 560 p. (MIRA 17:6)

ADEL'SON-VEL'SKIY, G.M.; BRUDNO, A.L.; KRONROD, A.S.; REZNIKOVSKIY, P.T.

System of commands for a three-address machine without address register. Dokl. AN SSSR 154 no. 3:545-548 Ja '64.
(MIRA 17:5)

1. Institut teoreticheskoy i eksperimental'noy fiziki Gosudarstvennogo komiteta po ispol'zovaniyu atomnoy energii, Institut elektronnykh upravlyayushchikh mashin i Tsentral'nyy nauchno-issledovatel'skiy institut kompleksnoy avtomatizatsii.

ACCESSION NR: AP4013321

S/0020/64/154/003/0545/0548

AUTHORS: Adel'son-Ver'skiy, G.M.; Brudno, A.L.; Kronrod, A.S.;
Reznikovskiy, P.T.

TITLE: Instruction code for a three-address machine without an
address register

SOURCE: AN. SSSR. Doklady*, v.154, no.3, 1964, 545-548

TOPIC TAGS: instruction code, order code, three address instruction,
three address machine, address register, base register, B box, B line,
indexing register, computer

ABSTRACT: Complete instructions for setting up an instruction code
for a machine with 4096 storage cells containing 43 word columns is
given. A complete code table is included. Orig. art. has: 1 table.

ASSOCIATION: Institut teoreticheskoy i ekperimental'noy fiziki Gosu-
darstvennogo komiteta po ispol'zovaniyu atomnoy energii (Institute of
Theoretical and Experimental Physics of the State Committee for Use of

Card : 1/2

ACCESSION NR: AP4013321

Atomic Energy); Institut elektronnykh upraveyayushchikh mashin (Institute of Electronic Control Machinery); Tsentral'nyy nauchno-issledovatel'skiy institut kompleksnoy automatizatsii (Central Scientific Research Institute for Complex Automation)

SUBMITTED: 08Jul63

DATE ACQ: 26Feb64

ENCL: 00

SUB CODE: CG, MM

NR REF SOV: 000

OTHER: 000

Card 2/2

REZNIKOVSKIY, P.T. (Moskva); RYBASOV, V.I. (Moskva); CHAYANOV, V.A., (Moskva)

Formulation and solution of a problem on nonlinear mathematical
programming. Izv. AN SSSR. Tekh. kib. no.5:121-132 S-O '63.
(MIRA 16:12)

TSESEVICH, Vladimir Platonovich; REZNIKOVSKIY, P.T., red.;
BRUDNO, K.F., tekhn. red.

[How and what to observe in the sky; handbook for the organization and conducting of amateur scientific observations of heavenly bodies] Chto i ~~kak~~ nabljudat' na nebe; rukovodstvo k organizatsii i provedeniiu liubitel'skikh nauchnykh nabljudenii nebesnykh svetil. Izd.3. Moskva, Fizmatgiz, 1963. 451 p. (MIRA 16:11)
(Astronomy---Observer's manuals)

GINTSBURG, A.K.; LOKTIN, V.A.; REZNIKOVSKIY, S.I.; ROZOVSKIY, B.G.;
SULYUTIN, M.A.; TRAKHOV, A.M.; KIRIYENKO, P.S., red.; KONO-
VALOVA, Ye.K., tekhn.red.

[Maintenance service for radio stations] Remont radiostantsii.
Moskva, Voen.izd-vo M-va obor.SSSR, 1959. 327 p. (MIRA 13:3)
(Radio--Transmitters and transmission)

PHASE I BOOK EXPLOITATION SOV/3883

Gintsburg, A.K., V.A. Loktin, S.L. Reznikovskiy, B.G. Rozovskiy,
M.A. Sulyutin, and A.A. Trakhov

Remont radiostantsiy (Repair of Radio Stations) Moscow, Voen. Izd-vo
M-va obor. SSSR, 1959. 327 p. No. of copies printed not given.

Ed.: P.S. Kiriyenko; Tech. Ed.: Ye.K. Konovalova.

PURPOSE: This textbook is intended for students of communication schools of the Soviet Defense Ministry, and may also be used by Defense Ministry personnel working in army communication repair shops, and by other radio specialists.

COVERAGE: The book deals with radio repair. Detailed information is given on materials and components, testing and repair of components, assembly and disassembly of radio equipment, measurements during testing and repair of radio stations, various methods of radio repair, and repair of power supply sources, transmitters, and receivers. M.A. Sulyutin wrote Ch. I; A.K. Gintsburg wrote Ch. II;

Card 1/11

Repair of Radio Stations

SOV/3883

V.A. Loktin wrote Ch. III; B.G. Rozovskiy wrote Ch. IV; S.L. Reznikovskiy wrote Chs. V, VII, VIII, and Section 3 of Ch. VI; and A.A. Trakhov wrote Ch. VI (excepting for Section 3). No personalities are mentioned. There are no references.

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1. Materials as basis of construction	5
2. Properties of radio engineering materials	5
Physical properties	5
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Card 2/11

SOV/169-59-6-5679

Translation from: Referativnyy zhurnal, Geofizika, 1959, Nr 6, p 37 (USSR)

AUTHORS: Blat, N.S., Reznikovskiy, Ya.S., Tsirel', V.S.

TITLE: The Problem of Processing Aeromagnetograms and the Ways of Its Solution

PERIODICAL: Tr. Vses. n.-i. in-ta metodiki i tekhn. razvedki, 1958, Nr 1, pp 323 - 333

ABSTRACT: According to this report, VITR developed a technical project of a device for semiautomatic processing of magnetograms of AEM-49 and AM-13 high-precision aeromagnetometers. The ΔT curve and the initial values for introducing the corrections (for drift, temperature, normal gradient) are fed to the input of the device. The device changes the vertical and horizontal scales of the curve, adds the corrections and produces at its output the corrected ΔT_A curve. The device is designed for processing aeromagnetograms of 305 mm width; the vertical scale of the recorded curves may have four different values. The maximum possible change of the field may amount

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SOV/169-59-6-5679

The Problem of Processing Aeromagnetograms and the Ways of Its Solution

to approximately 22,000 μ . Before processing the aeromagnetogram, the following information must be added: the values of the horizontal scale, the guide lines, the coefficient of correction for the horizontal scale and the correction values. The principal and kinematic diagrams and also a general view of the device are shown. Preliminary computations show that the efficiency of processing magnetograms may be increased by five times when using the developed device.

✓B

D.V. Korniyets

Card 2/2

89488

S/022/61/014/001/008/010
B112/B202

26.2312

AUTHOR: Rezikyan, A. M.

TITLE: Ion formation in the cathode region of glow discharge (experimental part)

PERIODICAL: Izvestiya Akademii nauk Armyanskoy SSR. Seriya fiziko-matematicheskikh nauk, v. 14, no. 1, 1961, 87-96

TEXT: The author studies the origin of the ions migrating to the cathode in anomalous glow discharge in continuation of an earlier paper in which he had demonstrated that the ion formation between cathode drop and cathode can be experimentally determined without using a cathode-drop theory: The following holds for the mean free path \bar{S}_k of the ions between cathode drop and cathode:

$$\bar{S}_k = 0,133 \frac{\Delta p b_1^-}{p j} \tag{1}$$

if p is the neutral gas pressure in mm Hg, Δp the pressure difference between cathode and anode in mm Hg, j the discharge current density in ma/cm² and b_1^+ the mobility of the positive ions per 1 mm Hg. The mean free path
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Ion formation in ...

referred to the cathode-drop width d , quotient $q = \bar{S}_k/d$ is more important than the mean free path. It indicates the place of ion formation, and its dependence on the conditions of glow discharge supplies one of the criteria for the correctness of the cathode-drop theories. The experimental arrangement consisted of a discharge tube with connected diaphragm pressure gauge measuring the pressure difference Δp between cathode and anode. This pressure difference is caused by the ion migration and is in equilibrium with the electric pressure onto the discharge volume. Experiments made on the dependence of the pressure difference Δp on pressure p and the discharge current density j , made in argon, nitrogen, and hydrogen, showed that with solid p , j is proportional to Δp , with solid j , however, Δp is proportional to p for argon, and inversely proportional to p for nitrogen and hydrogen. The author also studied the ion losses caused by boundary effects by varying the diameter of the discharge tube. He discusses the effect of ion losses caused by diffusion to the wall and by recombination. He arrives at the conclusion that already with weakly anomalous glow discharge the major part of the ions migrating to the cathode, was formed in the region of discharge glow whose width l can be theoretically determined. The character

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Ion formation in ...

of discharge also depends on the type of the gas. There are 4 figures,
5 tables, and 1 Soviet-bloc reference.

ASSOCIATION: Fizicheskiy institut AN Armyanskoy SSR (Physics Institute
AS Armyanskaya SSR)

SUBMITTED: September 2, 1959

Card 3/3

ARKINOVA, E. G., LYUBANSKIY, V. A. and REZNISKOVA, L. P.

"Basis for the Separate (Unique) Temperature Regime of the Caspian Sea and its (Surrounding) Area." In book - Works of the State Oceanographic Institute, published by Hydrometeorological Publishing House, Moscow, 1958.

1ST AND 2ND ORDERS
PROCESSES AND PROPERTIES INDEX

A-4

BC

Preparation and properties of a crystalline protein-decomposing enzyme. M. S. Berman, M. P. Gossina, and P. I. Starobinski (Biochem. USSR, 6, 19-20). The proteolytic activities of various samples of pancreatin and trypsin towards gelatin were compared in respect of N not freed by trichloroacetic acid (disaggregation) and liberation of amino-N, measured by titration with HCl in presence of acetone, according to Lindstrom-Lang (hydrolysis). From the pancreatin which showed the highest disaggregation/hydrolysis ratio a crystalline enzyme prep. has been obtained by a method similar to that used by Morfitt for crystallizing trypsin. This enzyme causes disaggregation of gelatin without any significant increase in amino-N. When the disaggregating enzyme acted on a 5% gelatin solution for 1 hr. at pH 9.1, 80% of the N not freed by trichloroacetic acid was dissolved. Disaggregation is a process independent from, and preceding, hydrolysis of peptide bonds.

A. H. G.

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION

E-2

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12041 804174

PROCESSES AND PROPERTIES INDEX

1ST AND 2ND ORDERS 3RD AND 4TH ORDERS

BC D-4

Disaggregating action of trypsin preparations.
N. S. Kuznetsov and G. A. Gerasova (Moscow, USSR), 1967, 3, 102-109. Disaggregation of gelatin by trypsin at pH 6.7 takes place below and independently of hydrolysis of peptide linkages; the existence of two separate factors in trypsin and pancreatin is postulated. R. T.

ASB-SLA METALLURGICAL LITERATURE CLASSIFICATION

GROUPS SUBGROUPS LETTERS

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45

A B C D E F G H I J K L M N O P Q R S T U V W X Y Z

CA

PROCESSES AND PROPERTIES INDEX

Rise in urinary acidity during work and its relation to fatigue. M. S. REZNIK. *Zhurnal exp. Biol. Med.* 11, 88-94(1920).—The curve of urinary pH during work reflects the intensity of the phys. exertion. The abs. change in the pH values may serve as an index of the degree of fatigue of the working organism. S. M.

11F

ANALYTICAL METALLURGICAL LITERATURE CLASSIFICATION

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PROCESSES AND PROPERTIES

15

Basal metabolism in hypertonia. E. Ya. Ryuminskaya and R. Ya. Spivak. *Klin. Med.* (U. S. S. R.) 16, 1410-20 (1938); *Chem. Zentr.* 1939, I, 3403. —No relation could be established between the height of the blood pressure and the basal metabolic rate from studies on 620 patients with hypertonia of varying etiology. M. G. Moore

A S M S L A METALLURGICAL LITERATURE CLASSIFICATION

E Z

1ST AND 2ND LETTERS

3RD AND 4TH LETTERS

5TH AND 6TH LETTERS

7TH AND 8TH LETTERS

9TH AND 10TH LETTERS

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97TH AND 98TH LETTERS

99TH AND 100TH LETTERS

PROCESSES AND PROPERTIES INDEX

114

Effect of prometin on blood pressure in hypotony.
 L. A. Flanchik and E. Ya. Reznitskaya. *Russ. Med.*
 (U.S.S.R.) 20, No. 8/9, 68-77(1942). Prometin of
 Soviet manuf. has a strong hypertensive effect which
 compares favorably with the foreign preps. The rise of
 max. pressure is sharper than that of min., hence the pulse
 pressure rises. In intramuscular administrations the effect
 lasts up to 60 min. The pulse is slowed, blood sugar and
 leucocyte count are not increased. In chronic hypotony
 prometin can be used in doses of 10-15 mg. G. M. K.

ASM-51A METALLURGICAL LITERATURE CLASSIFICATION

25762

S/044/60/000/004/003/006

C111/C333

16.3500

AUTHOR: Reznitskaya, K. G.

TITLE: The system of three nonlinear diffusion equations

PERIODICAL: Referativnyy zhurnal, Matematika, no. 4, 1960, 66,
abstract 4058. (Uch. zap. Kishenevsk. un-t., 1959, 39,
225-232)

TEXT: It is proved that the system

$$\frac{\partial u}{\partial t} = a^2 \frac{\partial^2 u}{\partial x^2} - kuv + pw,$$

$$\frac{\partial v}{\partial t} = a^2 \frac{\partial^2 v}{\partial x^2} - kuv + pw,$$

$$\frac{\partial w}{\partial t} = a^2 \frac{\partial^2 w}{\partial x^2} + kuv - pw$$

possesses in the domain $0 \leq x < \infty, 0 \leq t < \infty$ a unique solution.
Card 1/2

X

X

25762

S/044/60/000/004/003/006

C111/C353

The system of three nonlinear . . .

which satisfies the boundary and initial conditions:

$$u|_{x=0} = 0, \quad u|_{x=\infty} = 0, \quad v|_{x=0} = 0,$$

$$v|_{x=0} = T, \quad v|_{x=\infty} = T, \quad \frac{\partial v}{\partial x}|_{x=0} = 0,$$

$$w|_{x=0} = 0, \quad w|_{x=\infty} = 0, \quad \frac{\partial w}{\partial x}|_{x=0} = 0,$$

where μ, T, a^2, k, p are positive constants.

[Abstracter's notes: Complete translation.]

Card 2/3

REZNITSKAYA, T.V.; GRIGOR'YAN, V.P.

Technique for determining halogens and sulfur by the combustion
method. Zav. lab. 31 no.11:1329-1330 '65. (MIRA 19:1)

1. Nauchno-issledovatel'skiy institut organicheskikh poluproduktov
i krasiteley.

REZNITSKAYA, Ye.Ya. , prof. (Kaluga)

On the description of N.A. Dobroliubov's illnesses; as part of
a discussion. Azerb.med. zhur. no.8:99-102 Ag '58 (MIRA 11:10)
(DOBROLIUBOV, NIKOLAI ALEKSANDROVICH, 1836-1861)
(TUBERCULOSIS)
(DIABETES)

REZNITSKAYA, Ye.Ya., prof.

Importance of anamnestic details in establishing an individual
case of pathogenesis. Azerb. med. zhur. no.9:39-44 S '62

(MIRA 18:1)

1. Iz kafedry fakul'tetskoy terapii (zav. - prof. Ye.Ya. Reznitskaya)
Severa-Osetinskogo Gosudarstvennogo meditsinskogo instituta (rektor
detsent N.A. Totrov).

REZNITSKIY, A. (Dnepropetrovsk)

In friendly relations with an aqualung. Voenn. znan. 38 no.10:33
0 '62. (MIRA 15:10)
(Diving, Submarine) (Photography, Underwater)

REZNITSKIY, A. (g. Krivoy Rog)

The traditions of our heroes are not forgotten. Radio no.6:11-12
Je '62. (MIRA 15:5)

(Krivoy Rog—Pioneers (Communist Youth))
(Krivoy Rog—Radio clubs)

REZNITSKIY, A. (Dnepropetrovsk)

Combat traditions live. Voen. Znan. 41 no.5:34-35 My '65. (MIRA 18:5)

REZNITSKIY, A. (Nikopol'skiy rayon Dnepropetrovskoy oblasti)

When the fires are kindled in school. Voen. znan. 40 no.2:33 F '64.
(MIRA 17:2)

REZNITSKIY, A.

It is fortunate to have physicists who are radio amateurs.

Radio no.6:3 Je '63.

(MIRA 16:7)

(Radio clubs)

(Amateur radio stations)

REZNITSKIY, A.

At the Petrovskii Plant. Voen. znan. 39 no.6:21 Je '63.
(MIRA 16:8)

(Dnepropetrovsk--Military education)

REZNITSKIY, A.

Technical sport becomes popular. Voen. znan. 39 no.11:17-
18 N '63. (MIRA 17:2)

1. Instruktor oblastnogo komiteta Dobrovol'nogo obshchestva
sodeystviya armii, aviatsii i flotu, Dnepropetrovsk.

REZNITSKIY, A.

Ranks of rural mechanizers are increasing. Voen. znan. 37
no.9:18 S '61. (MIRA 14:9)

1. Instruktor Dnepropetrovskogo obkoma Dobrovol'nogo obshchestva
sodeystviya armii, aviatsii i flotu, Sinel'nikovskiy rayon,
Dnepropetrovskoy oblasti.
(Farm mechanization)

REZNITSKIY, A., instruktor

Initiative at a factory. Voen. znan. 37 no.12:29 D '61.
(MIRA 14:11)

1. Oblastnoy komitet Dobrovol'nogo obshchestva sodeystviya armii,
aviatsii i flotu, g. Dnepropetrovsk.
(Nikopol'--Shooting, Military)

L 47451-66 EWP(e)/EWT(m)/EWP(t)/ETI/EWP(k) IJP(c) JD/WW/JG/AT/WH/JH
ACC NR: AP6014440 SOURCE CODE: UR/0125/65/000/012/0063/0065

AUTHORS: Shekhter, S. Ya.; Reznitskiy, A. M.; Panov, B. N.

ORG: /Shekhter, Reznitskiy/ Kommunarsk Metallurgical Plant (Kommunarskiy metallurgicheskiy zavod); /Panov/ ORGRES

83
15 B

TITLE: Strengthening parts of metallurgical equipment by plasma deposition

SOURCE: Avtomaticeskaya svarka, no. 12, 1965, 63-65

TOPIC TAGS: plasma arc, metal deposition, welding equipment, aluminum oxide, titanium dioxide, zirconium compound, tungsten carbide, chromium carbide, blast furnace, rolling mill/ PS-500 welding equipment

ABSTRACT: A preliminary list of parts of metallurgical equipment to which protective coatings are applied with a plasma arc is given as the blast and slag tuyeres of blast furnaces, the baffle plates of blast tuyeres, the pipes of heating furnaces of rolling mills, the working wheels of exhaust fans, the cases of thermocouples, and others. The properties of powdered materials that have been selected for coatings are discussed. The materials include aluminum oxide, titanium dioxide, zirconium oxide, tungsten carbide, and chromium carbide. When argon-nitrogen mixtures and pure nitrogen are used, the arc voltage must be not less than 80 V at 300 A. The voltage is supplied by two series-connected PS-500 welding transformers. Proper selection of the coating material insures high mechanical strength of the bond of the coating with the part and increased density of the protective layer.

SUB CODE: 11, 13/ SUBM DATE: 07May65/ ORIG REF: 004/ OTH REF: 002

SHEKHTER, S.Ya.; REZNITSKIY, A.M.; PIKULIN, S.A.; KHOMENKO, K.M.

Automatic welding of oversize, steel pouring ladles. Avtom.svar.
18 no.1:59-60 Ja '65. (MIRA 18:3)

1. Kommunarskiy metallurgicheskiy zavod (for Shekhter, Reznitskiy,
Pikulin). 2. Institut elektrosvarki im. Ye.O.Patona AN UkrSSR (for
Khomenko).

BELAN, Yu.M., inzh.; GOMCHARENKO, Yu.G., inzh.; DAVYDGOVICH, A.S., inzh.;
REZNITSKIY, D.I., inzh.

Continuous automatic control of the composition of flue gases.
Gor.zhur. no.340-61 Mr '65. (MIRA 18:5)

1. Metallurgavtomatika, Dnepropetrovsk.

ACC NR: AP7005395 (N) SOURCE CODE: UR/0148/67/000/001/0131/0133
AUTHOR: Gorelik, S. S.; Reznitskiy, E. L.
ORG: Moscow Institute of Steel and Alloys (Moskovskiy institut stali i splavov)
TITLE: Effect of the hardening phase on primary recrystallization of EI437B alloy
SOURCE: IVUZ. Chernaya metallurgiya, no. 1, 1967, 131-133
TOPIC TAGS: metal recrystallization, phase transition, alloy steel, metal grain structure

ABSTRACT: The authors study the effect which the hardening phase has on structural formation in deformed specimens of EI437B alloy. An investigation of the structure of specimens subjected to deformation at various temperatures revealed that mechanical treatment close to the boundary of the two-phase region (890-900°C) causes considerable heterogeneity in grain structure with standard heat treatment (1080°C, 8 hours). Therefore, tests were conducted to determine the stage of recrystallization at which the differences in grain structure appear and the factors which affect the structural formation. The specimens for the test were tapered (to produce a range of deformations) and cut from a single bar. These specimens were tempered to a single-phase solution (heating at 1100°C for 2 hours and cooling in water). Some of the specimens were subjected to tensile tests at room temperature while the remainder were tested at 900°C. Maximum deformation at 900°C was less than 20% with brittle fracture. X-ray

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UDC: 669.14.018.45.011.7

ACC NR: AP7005395

phase analysis showed segregation of a considerable quantity of hardening phase $Ni_3(Ti, Al)$ in the deformed region of these specimens. The electron microscope was used for studying the nature of this phase and its distribution. It was found that segregation of the hardening phase is extremely irregular throughout the metal. The course of primary recrystallization during standard heating ($1080^{\circ}C$) was then studied in specimens deformed at both temperatures. The results indicate that particles of γ' -phase precipitate out at dislocations during deformation which prevents redistribution with subsequent heating and thus delays formation of recrystallization centers. The structure of specimens deformed at $900^{\circ}C$ shows greater irregularity in grain dimensions and larger average grain size. This is probably due to the effect of the second phase on the nucleation process and the growth of nuclei during primary recrystallization. Orig. art. has: 4 figures.

SUB CODE: 11/ SUBM DATE: 27Jul66/ ORIG REF: 08

Card 2/2

REZNITSKIY, I.G.

Recovery of oleum in the production of contact sulfuric acid
according to a short flow sheet. Khim. prom. 42 no.9:681 S '65.
(MIRA 18:9)

REZNITSKIY, L.A.;KHOMYAKOV, K.G.

Determining the melting point of $\text{Na}_2\text{S}_2\text{O}_7$ and NaHSO_4 from heating curves under adiabatic conditions. Vest Mosk. un. Ser. mat., mekh., astron., fiz., khim. 14 no.2:199-202 '59 (MIRA 13:3)

1. Kafedra obshchey khimii Moskovskogo gosuniversiteta.
(Sodium Sulfates--Thermal properties)
(Melting points)

REZNITSKIY, L.A.

Determination of the heat of formation of silicon dioxide
by the electromotive force method. Zhur. fiz. khim. 38 no.3:
760-762 Mr '64. (MIRA 17:7)

1. Institut goryuchikh iskopayemykh AN SSSR.

MEDVEDEV, V.A.; YUNGMAN, V.S.; VOROB'YEV, A.F.; GURVICH, L.V.;
BERGMAN, G.A.; REZNITSKIY, L.A.; KOLESOV, V.P.;
GAL'CHENKO, G.L.; KHODEYEV, Yu.S.; KHACHKURUZOV, G.A.;
SOKOLOV, V.B.; GOROKHOV, L.N.; MONAYENKOVA, A.S.;
KOMAROVA, A.F.; VEYTS, I.V.; YURKOV, G.N.; MALENKOV, G.G.;
SMIRNOVA, N.L.; GLUSHKO, V.P., akademik, otv. red.;
MIKHAYLOV, V.V., red.; KARAPET'YANTS, M.Kh., red.

[Thermal constants of substances; reference book in ten
numbers] Termicheskie konstanty veshchestva; spravochnik
v desiati vypuskakh. Moskva, No.1. 1965. 144 p.
(MIRA 18:7)

1. Moscow. Vsesoyuznyy institut nauchnoy i tekhnicheskoy
informatsii.

REZNITSKIY, L.A.; KHOMYAKOV, K.G.

True heat capacity of magnesium ferrite. Vest.Mosk.un.Ser.2:
Khim. 17 no.2:50-52 Mr-Apr '62. (MIRA 15:4)

1. Kafédra obshchey khimii Moskovskogo universiteta.
(Magnesium ferrates) (Heat capacity)

KHOMYAKOV, K.G.; TRET'YAKOV, Yu.D.; REZNITSKIY, L.A.; PAVLOVA-VEREVKINA, L.A.

Works on ferrates at the general chemistry department over the
last five years. Vest.Mosk.Un.Ser.2:Khim. 16 no.5:52-59 S-0 '61.
(MIRA 14:9)

1. Kafedra obshchey khimii Moskovskogo universiteta.
(Ferrates)

REZHITSKIY, L.A.; KROMYAKOV, K.G.

Calorimetric determination of the heat of formation of ferrites.
Part 5: Heat of formation of manganese ferrite. Vest. Mosk. un.
Ser. 2: Khim. 15 no.6:24-26 M-D 1963. (S.I.A. 1412)

1. Kafedra obshchey khimii Moskovo gosudarstvennogo universiteta.
(Manganese ferrite) (Heat of formation)

REZNITSKIY, L.A.

Preparation of mixed schoenites from supersaturated solutions. Vest.
Mosk un. Ser. 2: Khim. 15 no.4:36-39 J1-Ag '60. (MIRA 13:9)

1. Kafedra obshchey khimii Moskovskogo universiteta.
(Picromerite)

REZNITSKIY, L.A.; KHOMYAKOV, K.G.

Calorimetric determination of the heat of reduction of ferrites with hydrogen. Part 3: Reduction of copper oxide and copper ferrite. Vest. Mosk un. Ser. 2: Khim. 15 no.4:40-42 J1-Ag '60. (MIRA 13:9)

1. Kafedra obshchey khimii Moskovskogo universiteta.
(Heat of reduction) (Copper oxide) (Copper ferrate)

REZNITSKIY, L.A.;KHOMYAKOV, K.G.

Calorimetric determination of the heat of reduction of ferrites
by hydrogen. Part 1: Calorimeter. Reduction of iron oxide. Vest
Mosk. un. Ser. mat., mekh., astron., fiz., khim. 14 no.2:217-224
'59 (MIRA 13:3)

1. Kafedra obshchey khimii Moskovskogo gosuniversiteta..
(Calorimeters) (Iron oxides)

68989

S/020/60/131/02/031/071
B011/B005

5.4700
AUTHORS:

Reznitskiy, L. A., Khomyakov, K. G.

TITLE:

Calorimetric Determination of the Formation Heat of Ferrites

PERIODICAL:

Doklady Akademii nauk SSSR, 1960, Vol 131, Nr 2, pp 325-326 (USSR)

ABSTRACT:

For practical purposes of ferrite synthesis, the authors determined the free energies and formation heats of copper-, zinc-, and calcium ferrite. The formation heats were determined from the difference of the reaction heats of oxide- and ferrite mixtures at 413°K with a mixture of sulfuric and phosphoric acid. Copper- and zinc ferrite were produced by thermal decomposition of isomorphous schoenite $(1/3M\text{SO}_4 \cdot 2/3\text{FeSO}_4 \cdot (\text{NH}_4)_2\text{SO}_4 \cdot 6\text{H}_2\text{O}$, where M = Cu or Zn). Calcium ferrite was obtained ceramically from CaCO_3 and Fe_2O_3 by annealing at 1100°. Equal amounts of ferrites and corresponding ferrite-forming oxides were used to obtain solutions of equal concentration. Table 1 shows the enthalpies determined on dissolution of the mixtures mentioned in acid at 413°K. Considering the previously determined formation heat of MgFe_2O_4 from MgO and Fe_2O_3 ($\Delta H_{413} = 9.2$ kcal/mole) it may be concluded that the formation heat of ferrites from oxides decreases in the order Ca - Mg - Zn - Cu. This order agrees with the voltage series of the metals. A very low exothermic effect in the formation of CuFe_2O_4 from oxides agrees

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Calorimetric Determination of the Formation Heat
of Ferrites68989
S/020/60/131/02/031/071
B011/B005

well with the thermal instability of CuFe_2O_4 above 1100° since a dissociation takes place at these temperatures. The formation heats of CuFe_2O_4 and ZnFe_2O_4 from elements at 413°K were computed from equations for C_p and from the values of ΔH_{298} for oxides (Refs 1,2). $\Delta H_{413}\text{CuFe}_2\text{O}_4 = -233.7$ kcal/mole and $\Delta H_{413}\text{ZnFe}_2\text{O}_4 = -284.9$ kcal/mole were computed from these data, using the formation heats from oxides determined in the present paper. For calcium- and magnesium ferrite, the values of the formation heats and free energies at 298°K are determined by conversion. There are 1 table and 6 references, 1 of which is Soviet.

ASSOCIATION: Moskovskiy gosudarstvennyy universitet im. M. V. Lomonosova
(Moscow State University imeni M. V. Lomonosov)

PRESENTED: November 10, 1959, by V. I. Spitsyn, Academician ✓

SUBMITTED: November 3, 1959

Card 2/2

ACC NR: AP6904182 (A) SOURCE CODE: UR/0076/86/040/061/0134/0139

AUTHOR: Reznitskiy, L. A.

ORG: Institute of High Temperatures, Academy of Sciences SSSR (Institut vysokikh temperatur Akademii nauk SSSR)

TITLE: Approximate determination of the heats of formation of certain compounds of transition metals in groups IV and V

SOURCE: Zhurnal fizicheskoy khimii, v. 40, no. 1, 1966, 134-139

TOPIC TAGS: heat of formation, carbide, nitride, boride, thermodynamic calculation, heat effect, halide, metal compound, hydride

ABSTRACT: Because inconsistent values of the heat of formation at standard conditions, ΔH298, have been obtained for numerous compounds, and no values at all have been calculated for others. It has become necessary to seek approximate methods of estimating ΔH298. The method is based on proven thermochemical relationships between the heats of formation of compounds of the same type. According to V. A. Kireyev, the heat effects of two reactions of the same type, X and Y, at the same temperatures are related as follows:

ΔHx = a · ΔHy, (1)

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UDC: 541.11

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ACC NR: AP6904182

where α is a temperature-independent coefficient for a moderate temperature range. This relationship is used to compare similar compounds of elements of the titanium subgroup (oxides, halides, carbides, borides, nitrides, and hydrides). The reference values used are the heats of formation of TiO_2 , ZrO_2 , HfO_2 , $TiCl_4$, $ZrCl_4$, TiF_4 , Zr_2F_4 , and HfF_4 . By using these values, the author calculates relation (1), with which he can then correct certain experimental data and evaluate ΔH_{298} of certain compounds, including carbides, nitrides, and borides of vanadium, niobium, and tantalum. Orig. art. has: 6 tables and 1 formula. 27

SUB CODE: 07, 19/ SUBM DATE: 06Oct64/ ORIG REF: 013/ OTH REF: 037

Card 2/2 *Jo*

REZNI'TSKIY, L.A.; KHOMYAKOV, K.G.

Calorimetric determination of the heat of reduction of ferrites by hydrogen. Part 2: Reduction of zinc ferrite. Vest.Mosk.un.Ser 2: Khim. 15 no.1:41-43 '60. (MIRA 13:7)

1. Kafedra obshchey khimii Moskovskogo universiteta.
(Zinc ferrate) (Hydrogen)

REZNITSKIY, L. A., Cand Chem Sci -- (diss) "Thermodynamic investigation of ferrites. Determination of the heats of formation of ferrites of manganese, magnesium, zinc, copper, and calcium." Moscow, 1960. 13 pp; (Moscow State Univ im M. V. Lomonosov, Physics Faculty); 150 copies; price not given; bibliography at end of text (13 entries); (KL, 17-60, 142)

REZNITSKIY, L.A., KHOMYAKOV, K.G.

Calorimetric determination of the heat of reduction of ferrites by hydrogen. Part 4: Reduction of magnesium ferrite. Determination of the heat of formation of magnesium ferrite. Vest. Mosk. un. Ser. 2: khim. 15 no.2:28-30 Mr-Apr '60. (MIRA 13:6)

1. Kafedra obshchey khimii Moskovskogo universiteta.
(Magnesium ferrate) (Heat of formation)

REZNITSKIY, L. A.

AUTHORS: Reznitskiy, L. A., Khomyakov, K. G., 76-1-13/32
Nekrasov, L. I., Smorokhodov, I. I.

TITLE: Concerning the Higher Peroxide of Hydrogen and Frozen Radicals
I. Determination of the Decomposition Temperature of the
Glassy Substances Produced in the Electric Discharge From
Water Vapour (K voprosu o vysshey perikisi vodoroda i
zamorozhennykh radikalov. I. Opredeleniye teploty
razlozheniya steklovidnogo veshchestva, poluchennogo iz
parov vody v elektricheskom razryade).

PERIODICAL: Zhurnal Fizicheskoy Khimii, 1958, Vol. 32, Nr 1, pp. 87-92
(USSR)

ABSTRACT: The results of the calorimetric determination of heat effects
are given, which accompany the decomposition of the glassy
substance (obtained from dissociated steam with an electric
discharge). The method of continuous heating on adiabatic
conditions was used. This method makes possible the
determination of heat effects in a relatively quick and
reliable manner. A construction of the calorimetric in-
vestigation of the interaction at low temperature of vapour
dissociated in an electric discharge was worked out. Three
heat effects were determined which accompany the heating

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76-1-13/32

Concerning the Higher Peroxide of Hydrogen and Frozen Radicals
I. Determination of the Decomposition Temperature of the
Glassy Substances Produced in the Electric Discharge From
Water Vapour

process of the glassy substance. The authors show that at -115°C the first exothermic effect begins and that it is accompanied by a separation of O_2 . At -70°C the glassy substance begins to melt. This goes on till -55°C . At this temperature the endothermic process passes over to an exothermic one. This is accompanied by a turbulent separation of O_2 . It reaches its maximum in a liquid phase at -43°C . This exothermic effect takes place in the melting range of the eutectic of the $\text{H}_2\text{O}-\text{H}_2\text{O}_2$ system. In order to take this effect into account the heat of fusion of the eutectic was determined. It was $74,5 \text{ cal/g}$. When determining the real value of the second exothermic effect this quantity was taken into account. The authors stated that with the first effect, which began at -115°C and which was accompanied by a separation of gas a heat of $78,8 \text{ kcal/mol O}_2$ was separated. The endothermic effect which is connected with the melting of the substance and which begins at -70° is also accompanied by a separation of

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76-1-13/32

Concerning the Higher Peroxide of Hydrogen and Frozen Radicals
I. Determination of the Decomposition Temperature of the
Glassy Substances Produced in the Electric Discharge From
Water Vapour

gas. With this effect 100 cal/g H_2O_2 were recorded. The quantity of the second exothermic effect was 68,0 kcal/Mol of O_2 . It is accompanied by a decomposition of H_2O_4 . The data given here prove the process of the decomposition of glassy substances suggested earlier by one of the authors (Nekrasov) (ref. 6). The endothermic effect stated with this decomposition has not yet been clearly explained. According to the opinion of the authors this effect had to be attributed to a change of the state of aggregation with glassy substances, which would coincide with the explanations in ref. 11. The authors were advised by Professor N. I. Kobozev. There are 2 figures, 2 tables, and 12 references, 2 of which are Slavic.

Card 3/4

76-1-13/32

Concerning the Higher Peroxide of Hydrogen and Frozen Radicals
I. Determination of the Decomposition Temperature of the
Classy Substances Produced in the Electric Discharge From
Water Vapour

ASSOCIATION: Moscow State University ineni M. V. Lomonosov
(Moskovskiy gosudarstvennyy universitet im. M. V. Lomonosova)

SUBMITTED: October 3, 1956

AVAILABLE: Library of Congress

Card 4/4

RIZNITSKIY, L. A.

PHASE I BOOK EXPLORATION SOV/4893

Vsesoyuznoye sveshcheniye po fizike, fiziko-khimicheskim svoystvam ferritov i fizicheskim osnovam ikh primeneniya. 3d, Minsk, 1959
 Ferrity; fizicheskiye i fiziko-khimicheskiye svoystva. Doklady i preprints: Physical and Physicochemical Properties. Reports
 Minsk, Izd-vo AN BSSR, 1960. 655 P. Errata slip inserted.
 1,000 copies printed.

Sponsoring Agencies: Nauchnyy sovet po magnetizmu AN SSSR. Otdel fiziki tverdogo tela i poluprovodnikov AN SSSR.

Editorial Board: Resp. Ed.: N. N. Sirota, Academician of the Academy of Sciences BSSR; K. P. Belov, Professor, G. I. Kosharskiy, Professor, I. M. Polivanov, Professor, R. V. Lisin, Professor, G. A. Smolenskiy, Professor, R. M. Smolyarenko, Associate of Physical and Mathematical Sciences, B. M. Smolyarenko, and L. A. Riznitskiy, Ed., G. I. Polozhinskiy, Sec.

PURPOSE: This book is intended for physicists, physical chemists, radio electronics engineers, and technical personnel engaged in the production and use of ferromagnetic materials. It may also be used by students in advanced courses in radio electronics, physics, and physical chemistry.

COVERAGE: The book contains reports presented at the Third All-Union Conference on Ferrites held in Minsk, Belorussian SSR. The reports deal with magnetic transformations, electrical and galvanomagnetic properties of ferrites, studies of the growth of ferrite single crystals, problems in the chemical and physicochemical analysis of ferrites, studies of ferrites having rectangular hysteresis loops and multicomponent ferrite systems exhibiting spontaneous rectangularity, problems in magnetic attraction, highly coercive ferrites, magnetic spectroscopy, ferromagnetic resonance, magneto-optics, physical principles of ultrasonic and magnetic wave propagation, anisotropy of electrical and magnetic properties, the effect of magnetic fields on electrical and magnetic properties, the effect of magnetic fields on Ag-ferromagnetic materials, and the effect of magnetic fields on Ag-ferromagnetic materials. The book also contains a bibliography on ferrites. References accompany individual articles.

Ferrites (Cont.)	SOV/4893
Berkalova, T. M., and A. A. Askochenskiy. Magnetic Anisotropy of Single Crystals of Iron-Cobalt Ferrites	95
Trutimakov, Yu. D., and K. G. Khomyakov. Experiment in Producing Ferrites by Nondiffusion Methods	100
Bashkurov, L. A., A. F. Palkin, and N. N. Sirota. Formation of Ferrites During the Decomposition of Salts	111
Kayazava, V. I., and I. I. Petrova. Investigation of the Properties of Nickel-Zinc Ferrites of Near-Stoichiometric Composition	117
Riznitskiy, L. A., and K. G. Khomyakov. Calorimetric Determination of the Heat of Formation of Ferrites	124
Basikhin, Yu. V. The Chemical Nature of Some Magnetic Spinels of the Diagram MgO-MnO-Fe₂O₃. Spinels with Rectangular Hysteresis Loop	129

Card 5/18

Card 4/18

REZNITSKIY, L.A. (Moskva)

Approximate method for calculating the heat of formation of
inorganic compounds. Zhur.fiz.khim. 35 no.8:1853-1859 Ag
161. (MIRA 14:8)

(Heat of formation)
(Salts)

S/189/62/000/002/004/004
D228/D302

AUTHORS: Reznitskiy, L.A., and Khomyakov, Kh.G.
TITLE: True heat-capacity of magnesium ferrite
PERIODICAL: Moscow. Universitet. Vestnik. Seriya II, khimiya,
no. 2, 1962, 50 - 52

TEXT: Continuing their research into the thermodynamic properties of ferrites the authors detd. the true heat-capacity of magnesium ferrites by E. King's method in the temp. range 50 - 298°K and by K. Bonnickson's method between 298 and 730°K. The ferrite were prepd. by thermally decomp. an isomorphous mixture of schoenite (ferrite I) and copptd. hydroxides (ferrite II). Graphs of the relationship between the heat-capacity and the temp. show that for ferrite I the C_p -T curve in the region of transition from the ferro- to the paramagnetic state has a lambda-shaped form, with a maximum at 660 OK; in the case of ferrite II, however, the conversion is spread over a larger temp. interval. This difference is attributed to the lower concn. of microscopic heterogeneities in ferrite I as compa-

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True heat-capacity of magnesium ...

S/189/62/000/002/004/004
D228/D302

red with ferrite II. The good coincidence between the authors' values for C_p and those obtained by King is noted. Up to 550°K their data also agree with those of Bonnickson, but at higher temps. the true heat-capacity of magnesium ferrite is above the value, calcd. by him from the differential of the heat-capacity equation. There are 1 figure and 4 references: 2 Soviet -bloc and 2 non-Soviet-bloc. The references to the English-language publications read as follows: E. King, J. Amer. Chem. Soc. 76, 5849, 1954; K. Bonnickson ibid., 76, 1480, 1954.

ASSOCIATION: Kafedra obshchey khimii (Department of General Chemistry)

SUBMITTED: November 11, 1960

Card 2/2

ACCESSION NR: AP4033411

S/0076/64/038/003/0760/0762

AUTHOR: Reznitskiy, L. A.

TITLE: Determination of the heat of formation of silicon dioxide by the emf method

SOURCE: Zhurnal fizicheskoy khimii, v. 38, no. 3, 1964, 760-762

TOPIC TAGS: heat of formation, electromotive force, silicon dioxide, thermodynamic function, emf method, isobaric potential

ABSTRACT: This article presents the experimental results on the determination of the isobaric potential for the formation of silicon dioxide, measured by the emf method. In this work the emf was measured in the following cell:

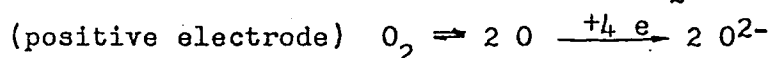
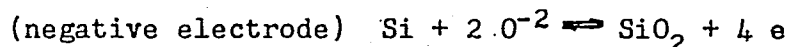
-Mo, Si saturated in Cu|K₂SiO₃, SiO₂ saturated in Cu|Pt, O₂ (gas)+'

The negative electrode was molybdenum wire, dipped into Si-Cu melt, saturated with Si. The electrolyte was a saturated solution of SiO₂ in K₂SiO₃. The positive electrode was Pt wire bubbled over with O₂,

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ACCESSION NR: AP4033411

purified from H₂O and CO₂. Since the Si-Cu melt and K₂SiO₃ melt were saturated with solid Si and SiO₂, the activity of Si and SiO₂ were equal to 1. The electrode processes may be represented by the following equations:



The heat of formation of SiO₂, then, is calculated from the value of the emf of the cell and the following equation

$$\Delta H = -4F (E - TdE/dt) \text{ kcal/mole.}$$

The temperature was maintained constant to ± 1 C and measured by means of a Pt-PtRh thermocouple. The emf became constant 2 - 3 hours after the establishment of the temperature, and it did not vary by more than 0.005 v. The measured emf were corrected for the emf of the Mo-Pt thermocouple, determined in separate experiments with the same electrodes that were used in the cell. The emf of this

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cell is described by the following equation:

$$E = a + bT = 2.325 (\pm 0.046) - 4.74 (\pm 0.37) \cdot 10^{-4} T, \text{ Volt.}$$

and the change of the isobaric-isothermal free energy of the formation of SiO_2 in the 1150 - 1420 C interval is

$$\Delta G = 214.5 (\pm 4.2) + 43.7 (\pm 3.4) T \text{ kcal/mole.}$$

Orig. art. has: 1 table

ASSOCIATION: Institut gorynychikh iskopayemykh Akademii nauk SSSR
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L 19864-65 EWP(e)/EWT(m)/EWA(d)/T/EWP(t)/EWP(k)/EWP(b) PF-4 ASD(m)-3 JD/WB/MLK

ACCESSION NR AM4049800 BOOK EXPLOITATION

S/

Shifrin, A. Sh. (Candidate of Technical Sciences); Reznitskiy, L. M.
(Candidate of Technical Sciences)

B

Machining of corrosion-resistant, heat-resistant and titanium steels and alloys (Obrabotka rezaniyem korroziionnostoykikh, zharoprochny'kh i titanovy'kh staley i splavov), Moscow, Izd-vo "Mashinostroyeniye", 1964, 446 p. illus., biblio. 4,200 copies printed.

TOPIC TAGS: metal cutting, corrosion-resistant steel, corrosion-resistant alloy, heat-resistant steel, heat-resistant alloy, titanium alloy, high speed steel, powder metallurgical hard alloy

PURPOSE AND COVERAGE: This book is devoted to the basic types of machining of corrosion-resistant, heat-resistant, and titanium materials: metal turning, planing, drilling, thread cutting, sinking, drawing, and polishing. For each type of machining the results of domestic and foreign research are given. Recommendations are made for selecting the optimal cutting regimes, the material and geometry of the cutting tool, and its design. The general characteristics and classification of modern corrosion-resistant, heat-resistant, and titanium materials are included. The properties of high-speed steels and powder metallurgical hard alloys are given. The book is intended-

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ed for engineers, technicians, and researchers concerned with the problems of metal cutting.

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SHKIN, A.Sh., kand. tekhn. nauk; REZNITSKIY, L.M., kand. tekhn. nauk; ZAGRETSKIY, P.P., kand. tekhn. nauk, retsenzent

[Cutting corrosion- and heat-resistant steels and alloys and titanium alloys] Obrabotka rezaniem korrozionmostoikikh, zharoprochnykh i titanovykh staley i splavov. Moskva, Izd-vo "Mashinostroenie," 1967. 446 p. (MIRA 17:8)

PAPKOVICH, Petr Fedorovich, zasl. deyatel' nauki i tekhniki RSFSR,
prof. (1887-1946); REZNITSKIY, L.Ya., otv. red.

[Structural mechanics of a ships] Stroitel'naya mekhanika ko-
rablia. Moskva, Izd-vo "Morskoi transport," Vol.2. Pt.1.
[Curvilinear frames. Cross members] Krivolineinye ramy. Pe-
rekrestnye sviazi. 1947. 815 p. (MIRA 15:4)

1. Chlen-korrespondent Akademii nauk SSSR, Voyenno-morskaya
akademiya korablestroyeniya i vooruzheniya (for Papkovich).
(Hulls (Naval architecture))

VYDRIN, Andrey Ivanovich; GAMUS, Moisey Zalmanovich; BOLOTIN, V.D., inzh.,
retsenzent; REZNITSKIY, L.M., kand. tekhn. nauk, red.; BORODULINA,
I.A., red. izd-va; BARDINA, A.A., tekhn. red.

[Partial mekhanization and automation in assembly shops] Malaia
mekhanizatsiia i avtomatizatsiia v sborochnom tsekhe. Moskva,
Gos. nauchno-tekhn. izd-vo mashinostroit. lit-ry, 1961. 164 p.
(MIRA 14:8)

(Machine-shop practice) (Automation)

REZNITSKIY, Lev Mikhaylovich

The Machining of Hardened Steels. Wright-Patterson Air Force Base, Technical Information Center, 1960.

V. 455 p. Illus., Charts, Diags., Graphs, Tables (MCL-406/V)

Translated from the original Russian: Mekhanicheskaya Obrabotka Zakalennykh Staley, Leningrad, 1958.

Bibliography: p. 447-452.

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PHASE I BOOK EXPLOITATION

SOV/1847

Reznitskiy, Lev Mikhaylovich

Mekhanicheskaya obrabotka zakalennykh staley (Mechanical Working of Hardened Steels) Moscow, Mashgiz, 1958. 398 p. Errata slip inserted. 7,000 copies printed.

Reviewers: A. M. Vul'f, Docent, Candidate of Technical Sciences; and V. D. Morozov, Docent, Candidate of Technical Sciences; Ed.: E. D. Maydel'man, Engineer; Eds. of Publishing House: I. A. Borodulina, and T. L. Leykina; Tech. Ed.: L. V. Sokolova; Managing Ed. for Literature on Machine-building Technology (Leningrad Division, Mashgiz): Ye. P. Naumov, Engineer.

PURPOSE: This book is intended for the engineering staff in machine-building plants. It may also be used by scientific workers and students of mechanical engineering vuzes and tekhnikums.

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Mechanical Working (Cont.)

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COVERAGE: This book deals with problems of machining hardened alloyed constructional steels. It presents results of investigations in this line and data of progressive work in turning, face milling, drilling, reaming, countersinking, and thread cutting of hardened steels. The author also gives practical suggestions for selecting design and geometry of the tool, as well as cutting regimes. The author stresses the importance of carbide-tipped tools in machining and cites work published by N. S. Logak on fine turning, N. N. Zorev on the cutting forces during turning, and M. N. Larin on the introduction of electric current into the zone of cutting during turning of hardened steels. He also mentions dissertations for the degree of Candidate of Technical Sciences presented by V. S. Mamayev, A. A. Maslov, A. D. Makarov, and Ye. A. Byelovsova, which concern the turning of hardened steels. There are 78 Soviet references.

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