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Ch. 12. Engineering Data and Mathematical Tables

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AVAILABLE: Library of Congress (TN 713 .Z5)

Card 11/11

GO/lwb

SEREBRENNIKOV, Sergey Sergeyevich; ZILBERMAN, A.A., redaktor; YABLONSKAYA, L.V., redaktor izdatel'stva; PETROVA, N.S., tekhnicheskiy redaktor

[Refractory material for blast furnaces and their auxiliary installations] Ogneupornaia kladka domennykh pechey i ikh vspomogatel'nykh ustroystv. Moskva, Gos. nauchno-tekhn. izd-vo lit-ry po chernoi i tsvetnoi metallurgii, 1957. 326 p. (MIRA 10:3)
(Blast-furnaces) (Refractory materials)

GORA, Aleksandr Petrovich; ZIL'BERMAN, Aron Ayaikovich; GAL'PERIN, A.S..
inzh., retsenzent; GURVITS, A.I., inzh., red.; VAGIN, A.A.,
red.isd-va; MIKHAYLOVA, V.V., tekhn.red.

[Blast furnace repairs] Remonty domennykh pechai. Moskva, Gos.
nauchno-tekhn.isd-vo lit-ry po chernoi i tsvetnoi metallurgii,
1960. 543 p. (MIRA 13:10)
(Blast furnaces--Maintenance and repair)

EDEL'MAN, Ya.A.; ZIL'BERMAN, A.B.

Some investigations of turbodrills. Trudy VNIIBT no.14:156-164
'65. (MIRA 18:5)

S/148/61/000/011/002/018
E071/E180

AUTHORS: Kozlov, V.I., Vishkarev, A.F., Zil'berman, A.G.,
and Yavoyskiy, V.I.

TITLE: Diffusion of carbon and oxygen in liquid steel

PERIODICAL: Izvestiya vysshikh uchebnykh zavedeniy,
Chernaya metallurgiya, no.11, 1961, 38-44

TEXT: In order to establish the relative rates of diffusion of carbon and oxygen in liquid steel (which are important in explaining the mechanism of oxidation of carbon) the authors made an attempt to measure the diffusion coefficients of these two elements in molten iron. The diffusion coefficient of carbon was determined using C^{14} by the method of orthoradiography. Since capillaries of 5-6 mm in diameter were used the influence of convection was not eliminated and out of numerous experiments only 11 results could be used for the determination of the coefficient. This was found to be equal to 4×10^{-5} - 1.92×10^{-4} cm^2/sec , which is close to published data. The diffusion coefficient for oxygen was determined by the method of semi-
Card 1/2

Diffusion of carbon and oxygen ...

S/148/61/000/011/002/018
E071/E180

infinite rod with a constant source of oxygen (blowing of oxygen on the surface of iron for one minute at a rate of 0.5 $\frac{g}{min}$). It was found that the diffusion coefficient for oxygen is higher than that of carbon by about two orders, namely

(3.0 - 7.8) $\times 10^{-3}$ cm^2/sec . The results invalidated the generally held view that the diffusion of oxygen is slower than carbon. Bearing in mind possible experimental inaccuracies, it can be stated that the diffusion of carbon in molten iron is not faster than that of oxygen. S.Z. Bokshteyn, I.S. Kulikov and A.A. Zhukhovitskiy are mentioned in the article.

There are 4 figures, 2 tables and 12 references; 9 Soviet-bloc and 3 non-Soviet-bloc. The English language reference reads:

Ref.4: D.W. Morgan, J.A. Kitchener. Transactions of the Faraday Society, v.50, no.1, 1954.

ASSOCIATION: Moskovskiy institut stali (Moscow Steel Institute)

SUBMITTED: June 24, 1961

Card 2/2

KOZLOV, V.I.; VISHKAREV, A.F.; ZIL'BERMAN, A.G.; YAVOYSKIY, V.I.

Diffusion of carbon and oxygen in liquid steel. Izv. vys.
ucheb. zav.; chern. met. 4 no.11:38-44 '61. (MIRA 14:12)

1. Moskovskiy institut stali.
(Gases in metals)
(Diffusion)

ZIL'BERMAN, A.I.; KIYASHKO, I.A.; GADLIYA, A.I.

Results of stand testing the PKD-DGI ("Dnepr") support. Izv.
DGI 42:167-174 '64. (MIRA 18:11)

KIYASHKO, I.A., kand.tekhn.nauk; ZIL'BERMAN, A.I., kand.tekhn.nauk;
GADLIYA, A.I., inzh.

Powered supports for longwalls in steep seams. Ugol' Ukr. 7
no.11:35-36 N '63. (MIRA 17:4)

1. Dnepropetrovskiy gornyy institut.

ZIL'BERMAN, A.I.

NEKRASOVSKIY, Ya.E., professor; LOKSHIN, B.S., dotsent; ZIL'BERMAN, A.I., dotsent; ANAN'YEV, B.S., dotsent; PROGIMAK, D.Ya., inzhener.

Mining systems used in steeply pitching seams where coal and gas outbursts are likely to occur. Izv. DGI no.24:65-120 '55.

(MLRA 10:2)

(Coal mines and mining--Safety measures)

ZIL'BERMAN, A. N. and ZHEMCHUGOV, Ya. M.

"So-Called Bottom Ice," Journal of Geophysics, No. 2, 1932

ZIL'BERMAN, A.S., kand.tekhn.nauk, red.; KOREN', M.M., inzh., red.;
NAUMOV, V.K., kand.tekhn.nauk, red.; SHIBALOV, I.N., inzh.,
red.; VASIL'YEVA, V.P., red.izd-va; SIMONOVSKIY, N.Z.,
red.izd-va; SPERANSKAYA, O.V., tekhn.red.

[Study of the elements of steam and gas turbines and axial
compressors] Issledovaniia elementov parovykh i gazovykh
turbin i osevykh kompressorov. Pod red. A.S.Zil'bermana.
Moskva, Gos.nauchn-tekhn.izd-vo mashinostroit.lit-ry. Vol.6,
1960. 487 p. (MIRA 14:4)

1. Leningradskiy metallicheskiy zavod. Otdel tekhnicheskoy
informatsii.

(Steam turbines) (Gas turbines) (Compressors)

ZIL'BERMAN, A.S., kand. tekhn. nauk; LEVIN, A.V., doktor tekhn. nauk

Efficiency of high-pressure turbines manufactured by the Leningrad Metalworking Plant (22d Congress of the CPSU). Teploenergetika 10 no.10:2-10 0*63 (MIRA 17:7)

1. Leningradskiy metallicheskiy zavod.

ZIL'BERMAN, A. S.,

"Experimental Investigations in the Field of Steam and Gas Turbine Building,"
Technological Developments at the Leningrad Metal Works imeni Stalin, Moscow,
Mashgiz, 1957. p. 80.

SOV/112-58-1-183

Translation from: Referativnyy zhurnal, Elektrotehnika, 1958, Nr 1, p 23 (USSR)

AUTHOR: Zil'berman, A. S.

TITLE: New Types of High-Power Steam Turbines Developed at the Leningrad Metal Plant (O rabotakh Leningradskogo metallicheskogo zavoda po sozdaniyu novykh tipov moshchnykh parovykh turbin)

PERIODICAL: V sb.: Novoye v konstruirovani tyazh. mashin, Moscow, Mashgiz, 1956, pp 3-10

ABSTRACT: Development and construction of new high-power and superhigh-power steam turbines with higher steam parameters is reported. Distinctive features of blueprint-stage turbines are listed: high economy, use of heat-resisting perlitic steel instead of austenite at 565° C initial temperature, increased carrying capacity of the last stages of low-pressure section, broad-scale automation. The reasons are given for the intermediate-superheat turbine construction selected by the plant. Comparison is made with similar turbines being designed at the Khar'kov turbine plant with respect to construction and

Card 1/2

SOV/112-58-1-183

New Types of High-Power Steam Turbines Developed at the Leningrad Metal Plant economy. Aerodynamic investigations of blades and steam inlet and outlet elements of newly designed turbines, as conducted at the factory, are described.

Ye. I. B.

AVAILABLE: Library of Congress

1. Steam turbines--Design

Card 2/2

ZILBERMAN, A.S.

25(2); 24(6)

PHASE I BOOK EXPLOITATION

SOV/2591

Akademiya nauk SSSR. Institut mashinovedeniya

Kolebaniya v turbomashinakh; sbornik statey (Vibrations in Turbomachines; Collection of Articles) Moscow, Izd-vo AN SSSR, 1959. 117 p. Errata slip inserted. 2,300 copies printed.

Resp. Ed.: S. V. Serensen, Academician, Academy of Sciences, USSR; Ed. of Publishing House: Ya. A. Klimovitskiy; Tech. Ed.: V. V. Volkova.

PURPOSE: This collection of articles is intended for scientific research workers, engineers, and designers in the field of turbomachinery.

COVERAGE: This collection of articles deals with vibrations in turbomachinery. The following topics are discussed: vibrations and stresses in the rotor and bearings of a turbogenerator, vibrations and stability of beams, flexural vibrations of a rotating shaft, whirling speeds of a flexible rotor with two unbalanced masses, acceleration through resonance of a nonlinear system, whirling speed and clearance in bearings, dynamic stresses in blades of an axial compressor, and damping of vibrations. No personalities are mentioned. References follow several of the articles.

Card 1/5

Vibrations in Turbomachines (Cont.)

SOV/2591

TABLE OF CONTENTS:

Preface

3

Daychik, M.L., F.M. Dimentberg, A.S. Zil'berman, G.L. Lyudin, N.I. Prigorovskiy, and K.Ye. Sakharov. Investigation of Vibrations and Stresses in the Rotor and Bearings of a High-power Turbogenerator During Operation

5

The authors discuss an experimental investigation made on a high-power turbogenerator in order to analyze the real state of stress of the rotor and vibrations of the rotor and bearings. The dynamic behavior of the whole system of joined rotors and bearings is treated. The influences of bases and foundations are not taken into consideration.

Bolotin, V.V. Vibration and Stability of Beams Under Action of Nonconservative Forces.

23

A cantilever rectilinear beam loaded by uniformly distributed following forces acting in the plane of its maximum rigidity is analyzed for stability at planar deformation. Critical parameters of the loading with and without consideration of damping are established.

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Vibrations in Turbomachines (Cont.)

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Dimentberg, F.M. Flexural Vibrations of a Rotating Shaft With a Flexible Bar Attached at One End

43

Connection between the flexural vibrations of the shaft and the bar in their common plane is investigated, and formulas for their frequencies are derived.

Gusarov, A.A. Acceleration Through Critical Speeds of a Flexible Rotor With Two Unbalanced Masses in the Presence of Friction

51

The author derives a system of two complex differential equations as a solution to the problem. The solution is based on the following assumptions: that the mass of the shaft, the gyroscopic movements of masses caused by deflections of the shaft, and the initial deflections of the shaft are negligible; that the shaft supports are absolutely rigid; that the shaft itself is torsionally rigid; and that the acceleration through critical speeds is uniform.

Rubanik, V.P. Acceleration Through Resonance in One Case of a Nonlinear System

75

Analysis is made of a nonlinear vibrating system with one degree of freedom having a nonlinear restoring force and excited by a low-frequency sine-shaped disturbing force. The effect of the rate of acceleration
Card 3/5

Vibrations in Turbomachines (Cont.)

SOV/2591

elastic forces acting of transverse displacements of the rotor are taken into consideration.

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Card 5/5

GO/sfm
12-7-59

ZIL BERMAN, A.S.

KARPUKHIN, V.V.; ZAYCHENKO, G.N.; ZIL'BERMAN, A.S.; POPLAVSKIY, V.R.; SOKOLOV,
B.A.; NIKITIN, N.G.; DVORYANKIN, M.M.; MEL'NIKOV, V.P.; OL'CHEV, P.F.;
BABCHENKO, V.M.

Two-zonal electric furnace for the caking of solid alloys.

Prom. energ. 14 no.1:40-41 Ja '59.

(MIRA 12:1)

(Electric furnaces)

Ob odnom metode vychisleniya dinamicheskikh zhestkostey
i o primeneni yego k podschetu kriticheskikh skorostey
mnogoprolëtnykh rotorov

AID 543 - I

TEXT DATA

Coverage: In the introduction the author discusses the value of the method of dynamic rigidity in engineering calculations, and analyses its computation by two methods: 1) from the viewpoint of statical rigidity and the resonance and "antiresonance" frequencies, and 2) by using coefficients of expanding the dynamic bending curve along the bending curves of natural vibrations of the elastic section under discussion. The second method, the author says, is not widely used because the series determining the dynamic rigidity do not easily converge. Then the author presents mathematically the method of computation of dynamic rigidity in the case of a bar on two supports, and finally gives the method of determining the critical speeds of a multi-supported shaft. The article is illustrated by graphs and detailed tables.

No. of References: None given

Facilities: None

2/2

ZIL'BERMAN, A. YE.

Electrons

Electron in a periodic electric field of low intensity and in a homogenous magnetic field.
Zhur. eksp. i teor. fiz. 23 no. 1, 1952.

Monthly List of Russian Accessions, Library of Congress, December 1952. Unclassified.

GORGIIYEV, T.B.; SUROVA, Yu.V.; ZIL'BERMAN, B.I.

Autovaccination in chronic cystitis. Vrach. delo no.10:141 O '61.

(MIRA 14:12)

1. Dnepropetrovskogo instituta epidemiologii, mikrobiologii i
gigiyeny i Dnepropetrovskogo lechebno-profilakticheskoye ob'yedineniye
No.2.

(VACCINES)

(BLADDER--INFLAMMATION)

ZIL'BERMAN, B. Kh.

ZIL'BERMAN, B. Kh. -- "Use of Thermal Radiation for the Prevention of Chilling Under Industrial Conditions."*(Dissertations For Degrees In Science and Engineering Defended at USSR Higher Education Institutions)(29) Khar'kov Medical Inst, Khar'kov, 1955

SC: Knizhnaya Letopis' No 29, 16 July 1955

* For the Degree of Candidate in Medical Sciences

ZIL'BERMAN, B. N.

Jan 49
Ussr/Medicine - Malaria Comatose
Medicine - Malaria, Complications and Sequels

Malaria Comatosa, " B. N. Zil'berman, Kirorabad,

7 25

"Kis Med" Vol XVIII, No 1

Comatose and pre-comatose malaria were most common
in autumn with no age group differentiation.
These types were most common in early infected
cases. Clinically, only a quantitative dif-
ference exists between the two types. Both
resemble acute encephalitis. Early
cases resembling meningio-encephalitis.
Treatment of comatose and pre-comatose cases
58/49174

Ussr/Medicine - Malaria Comatose (Contd) Jan 49

with large doses of quinine together with acrynane
repeated frequently (6 - 7 hours) helped reduce
death rate to 10%.

58/49174

ZIL'BERMAN, B. N.

USSR/Medicine - Infectious Diseases

Jun 51

"Experience in Treating Sufferers From Chronic Bacterial Dysentery With Bezredka's Vaccine," B. N. Zil'berman

"Rizh Med" Vol XXIX, No 6, pp 85,86

Bezredka's vaccine was applied according to the procedure described by Ryzs and Alekseyev-Berkmán in treating a group of patients 75% of whom had [acute] dysentery more than 2 yr ago. During the course of treatment, 64 tablets contg 1 billion microbe bodies (Shi2a, Flexner, Gisa [Hiss?], and Sonne bacilli) each were administered. Dysentery bacteriophage

198156

USSR/Medicine - Infectious Diseases (Contd)

Jun 51

(15-30 cc per day) was also given. Results were good in the majority of cases. Apparently a general specific immunity is produced.

198156

BABAYEV, E.A. [Babalev, E.O.]; TKACHENKO, A.I.; ZIL'BERMAN, D.P.;
LIFORENKO, B.L.

Design of molded light weight heels. Ish. prom. no. 3178-79
Jl-8 '65. (MIRA 18:9)

S/020/63/149/003/007/028
B112/B180

AUTHOR:

Zil'berman, B. S.

TITLE:

Arrangement of charges at vertices of an n-dimensional unit cube

PERIODICAL:

Akademiya nauk SSSR. Doklady, v. 149, no. 3, 1963, 546 - 549

TEXT:

The set E_n of all the vertices $(\sigma_1, \dots, \sigma_n)$ of an n-dimensional unit cube is a metrical space when for two vertices $A = (\alpha_1, \dots, \alpha_n)$ and $B = (\beta_1, \dots, \beta_n)$ the distance $\rho(A, B) = |\alpha_1 - \beta_1| + |\alpha_2 - \beta_2| + \dots + |\alpha_n - \beta_n|$ is defined. A set $M = \{A_1, \dots, A_m\}$ ($m \geq 2$) of vertices possesses the energy $H(M) = \sum_{1 \leq i < j \leq m} 1/\rho(A_i, A_j)$. The problem is to find, among all the sets of m ($2 \leq m \leq 2^n$) vertices, the one with minimum energy. The case $m = 2^{n-1}$ is considered. It is shown that two solutions exist, the characteristic functions of which are linear functions of $x_1 + \dots + x_n \pmod{2}$ and $x_1 + \dots + x_n + 1 \pmod{2}$, respectively.

Card 1/2

Arrangement of charges at ...

S/020/63/149/003/007/028
B112/B180

ASSOCIATION: Moskovskiy elektromekhanicheskiy institut (Moscow Electro-
mechanical Institute)

PRESENTED: October 11, 1962, by P. S. Novikov, Academician

SUBMITTED: September 14, 1962

Card- 2/2

ZIL'BERMAN, B.Ya.; IVANOVA, A.G.; PUSHLENKOV, M.F.

Study of equilibrium between liquid and vapor in the system
 $\text{HNO}_3 - \text{HCl} - \text{H}_2\text{O}$ at boiling point and under atmospheric pressure.
Zhur. prikl. khim. 36 no.5:1143-1145 My '63. (MIRA 16:8)

(Nitric acid) (Hydrochloric acid)
(Phase rule and equilibrium)

GRILIKHES, S.Ya., kand. tekhn. nauk; ZIL'BERMAN, B.Ya., inzh.

Thermal processes in deep anodizing of aluminum. Mashinostroenie
no.5:88-90 S-0 '63. (MIRA 16:12)

S/080/60/033/005/004/008

AUTHORS: Fedot'yev, N.P., Grilikhes, S.Ya., Zil'berman, B.Ya.

TITLE: Deep Anodizing⁸ of Aluminum¹ at Room Temperature

PERIODICAL: Zhurnal prikladnoy khimii, 1960, Vol 33, No 5, pp 1133 - 1141

TEXT: Anodizing of aluminum in sulfuric acid at room temperature produces only thin films 10 - 15 μ thick. It is difficult to obtain films of 80 - 150 μ due to thermal processes taking place in the electrolysis. To obtain thick films, the current density must be increased and the H₂SO₄ concentration and the temperature of the electrolyte must be decreased. An increase in the current density causes heating of the solution, however. According to Kosha-Shomodi [Ref 1] the dissolution rate of the film increases logarithmically with an increase in temperature. Deep anodizing, therefore, depends on the degree of heat removal from the reaction zone. The heat can be removed through the metal to be anodized or through the electrolyte. The first method has been developed by Tomashov [Ref 2]. It consists in cooling the part under treatment by a cooling solution in its interior. The second method consists in cooling and mixing the electrolyte, the temperature of

Card 1/2

1.1800

31173
S/080/61/034/012/008/017
D258/D305

AUTHORS: Grilikhes, S.Ya., Zil'berman, B.Ya., and Krasikov, B.S.

TITLE: Investigating oxide films on aluminum with the aid of impedance measurements

PERIODICAL: Zhurnal prikladnoy khimii, v. 34, no. 12, 1961, 2685 - 2691

TEXT: The authors attempted the study of the barrier layer on anodized Al, by measuring the capacity C, and the intermediate resistance R, and plotting them against the quantity of passed electricity, Q. The resulting plots of C against Q in "normal" conditions show either minima or monotonously rising values of C. The minima grow more pronounced with the increasing severity of the concentrations of H₂SO₄. Samples, anodized in severe conditions, require lesser energy expenditure on anodizing to attain minimum values of G. Lower temperatures raise the capacity, thus indicating a marked increase of the pore area in the immediate neighborhood of the barrier layer. Anodizing at constant W produces more com-

Card 1/3

31473

S/080/61/034/012/008/017
D258/D305

Investigating oxide films on ...

... pact films than at constant D_a . The quantity of generated heat and the rate of its removal is a further factor in the creation of the film. Thus, almost identical curves of C vs. Q are obtained with 2 samples, one anodized at -20°C with $D_a = 5\text{A}/\text{dm}^2$ in a non-stirred electrolyte and the other at $+180^{\circ}\text{C}$, $W = \text{const}$, $D_a(\text{in}) = 18\text{A}/\text{dm}^2$. X

The curves of R vs. Q show that thicker films are obtained at constant W rather than at constant D_a . Also, anodizing at lower temperatures results in thicker films, all other factors being equal. Based on these results and on earlier evidence, the authors describe the anodizing process as follows: As the current is switched on, a film of an uneven thickness is formed. This non-uniformity stems from the irregularity of the metal surface and is even more pronounced at "severe" conditions. Consequently, the film has a large equivalent cross-section which, however, diminishes toward the end of the process, as the film grows thicker. During the process the pores grow narrower toward the peaks, provided the heat is swiftly removed; otherwise, corrosion at the peaks sets in. This corrosion is intensified by the evolution of oxygen which adheres to the walls of the pores, thus preventing diffusion and removal of heat.

Card 2/3

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ACCESSION NR: AP3000645

When calculating the speed of electrolyte agitation, other factors such as temperature and composition of the electrolyte, the size of bath and stirrer, current density, the position of the sample, the electrolyte and the uniformity of mixing.

...

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SER CODE: 78

DATE ACQ: 12Jun65

NO REP SOV: 006

HWCL: 00

OTHER: 001

Card 2/2

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ACC NR: AP6035632

SOURCE CODE: UR/0089/66/020/005/0419/0421

AUTHOR: Zil'berman, B. Ya.; Komarov, V. N.; Pushlenkov, M. F.

9
B

ORG: none

TITLE: Calculation method for azeotropic steam fraction, applied to the TBP-CCl₄ system

SOURCE: Atomnaya energiya, v. 20, no. 5, 1966, 419-421

TOPIC TAGS: azeotropic mixture, fractional distillation

ABSTRACT: The propagation principle of uniform molar flow for stratified systems was used to investigate the azeotropic propagation principle leads to the concentration of "fictive" components in the sum of the liquid phases. The equation for the system is analogous to that of a homogeneous two-component system; the difference is that in the homogeneous condensate phase a concentration of fictive components appears. Orig. art. has: 2 figures and 3 formulas. [NA]

SNB CODE: 07 / SUBM DATE: 23 Jul 65 / ORIG REF: 003 / OTH REF: 004

ms
Card 1/1

UDC: 66.048.6:661.723.2+66.062.6

0922 0034

ZILBERMAN, B. Z.

PHASE I BOOK EXPLOITATION SOV/5293

Kauchno-tekhnicheskaya konferentsiya po razvitiyu proizvoditel'nykh sil Ehar'-kovskogo obkrmicheskogo administrativnogo rayona, 1958.

Voprosy mashinostroyeniya: trudy konferentsii... (Problems of Machine Building: Transactions of the Scientific Technological Conference on the Development of Productive Forces of the Ehar'kov Economic Administrative Region) no. 3. Kiev, Izd-vo AN UkrSSR, 1960. 182 p. 1,500 copies printed.

Sponsoring Agency: Akademiya nauk Ukrainy SSR. Sovet po isucheniyu proizvoditel'nykh sil UkrSSR.

Editorial Board: Ed.: A.A. Vasilenko, Academician of the Academy of Sciences UkrSSR; A.A. Gorshkov, Corresponding Member, Academy of Sciences UkrSSR; I.M. Postnikov, Doctor of Technical Sciences; S.M. Kutsmko; A.I. Adanenko, Candidate of Technical Sciences; M. Baykov, Candidate of Economic Sciences; Ed. of Publishing House: S.D. Lepkyi, Tech. Ed.: R.A. Euny.

PURPOSE: This collection of articles is intended for scientific personnel, engineers, technicians, sovarkhoz workers, and planning organizations.
 COVERAGE: The articles deal with problems in technology and techniques in the manufacture of engines, hydraulic turbines, diesel locomotives, tractors, combines, electrical machinery, etc. Considerable attention is given to the following: the development of various types of equipment used for automation in the coal industry; equipment development for the production and use of rectifiers; the development of new accessories for measuring and controlling heat-engineering parameters; and the introduction of advanced methods into founding and die forging. No personalities are mentioned. References accompany some of the articles. There are 20 references: 16 Soviet, 2 German, 1 French, and 1 English.

Glagolev, M.M. [Doctor of Technical Sciences at Ehar'kov Polytechnical Institute]. The Present State of and Outlook for the Development of Engine Building 44

Koval', I.A. [Chief Designer at the GSKED (Gosudarstvennoye Spetsial'noye Konstruktorskoye Byuro Dizainirovaniya - State Special Engine-Design Bureau) in the "Serp i Molot" Plant]. Work Done by the "Serp i Molot" Plant in Ehar'kov and by Its GSKED in the Design of New Tractor and Combine Engines 61

Kashuba, B.P. [Chief Designer at the Ehar'kovskiy traktorny zavod (Ehar'kov Tractor Plant)]. The All-Purpose T-75 Caterpillar Tractor 68

Gorf, M.E., and O.Yu. Kravarenko [Candidates of Technical Sciences at the Institut litseynogo proizvodstva AN UkrSSR (Institute of Founding AS UkrSSR)]. Investigating the Dynamic Strength of Certain Constructions in the Tractor and Transportation Industries 75

Postnikov, I.M. [Doctor of Technical Sciences at the Institut elektrotekhniki AN UkrSSR (Electrotechnical Institute AS UkrSSR)]. Basic Prospects for Research in the Field of Design of New Types of Electric Machinery 67

Perel'muter, M.M. [Candidate of Technical Sciences at the Ehar'kov Branch of "Tysyachpromelektroproyekt"]. Prospects for the Development of Electric Drives 92

Problems of Machine Building (Cont.) SOV/5293

Zil'berman, B.Z. [Candidate of Technical Sciences at the Ehar'kov Branch of "Tysyachpromelektroproyekt"]. The Use of Computers for Planning Production Processes 94

Sorochenko, V.Ye. [Chief Equipment Designer at the Ehar'kovskiy elektrotekhnicheskiy zavod (Ehar'kov Electrotechnical Plant)]. Trends in the Development of Electrical-Apparatus Manufacture at the Ehar'kov Electrotechnical Plant 97

Yanchuk, G.M. [Candidate of Technical Sciences at Izvod "Tysyachpromelektroproyekt" (The Tysyach Metal Plant)]. Equipment for Automation in Coal Mining 102

Opar'yan, Ya.P. [Engineer at the Ehar'kov Branch of "Tysyachpromelektroproyekt"]. The Use of Mechanical Rectifiers in Electrolytic Processes 115

Leonkin, V.P. [Engineer at the Ehar'kov Electrotechnical Plant]. The Manufacture of Mechanical Rectifiers 117

ZIL'BERMAN, B.Z. (Khar'kov)

Calculation of automatic control systems. Avtomatyka 9
no.5:3-14 '64. (MIRA 18:2)

"APPROVED FOR RELEASE: 09/19/2001

CIA-RDP86-00513R002065120014-0

APPROVED FOR RELEASE: 09/19/2001

CIA-RDP86-00513R002065120014-0"

ZIL'BERMAN, B.Z., kandidat tekhnicheskikh nauk.

"Electricity in animal husbandry." A.A.Klimov. Reviewed by B.Z.
Zil'berman. Elektrichestvo no.3:95-96 Mr '56. (MIRA 9:6)

1.Kafedra mekhanizatsii zhivotnovodstva Khar'kovskogo zootekhnicheskogo instituta.
(Electricity in agriculture) (Klimov, A.A.)

PA - 2299

The Condition for a Maximum Accuracy of the Ferro-Resonance Stabilizers of Voltage.

$\frac{V}{P_H}$ determines the order of accuracy of the stabilizer.
(1 illustration).

ASSOCIATION: Not given
PRESENTED BY:
SUBMITTED:
AVAILABLE: Library of Congress

Card 2/2

Application of computers ...

S/194/62/000/001/006/066
D201/D305

are of importance also in stationary states of automatically controlled supplies, because the system stability determines the achievable accuracy of automatic control. Considerable difficulties are encountered in calculating the supply transients. This is so because they are described by systems of higher order differential equations. The use of analogues shortens substantially the time required for solving differential equations. Possibilities arise for determining the supply dynamics in the course of their design. A note is made of the fact that the planning and experimental department of the Khar'kov branch of the Tyazhprom elektroyekt uses the analogue installation type ИИТ-5 (IPT-5) for simulating electrical supplies for the metallurgical industry and computers for solving the problems of supply control. [Abstracter's note: Complete translation.]

Card 2/2

ZIL'BERMAN, Boris Zalmanovich; YAMPOL'SKIY, D.A., red.; SHIROKOV,
M.M., tekhn. red.

[Simulation of electric drives] Modelirovanie elektroprivodov.
Moskva, Gosenergoizdat, 1962. 78 p. (Biblioteka po avtomatike,
no.48) (MIRA 15:5)
(Electric driving--Electromechanical analogies)

LENGAUER, N.A.; ZIL'BERMAN, D.B.; YANOVSKIY, A.D.; KAMENETSKAYA, I.Ya.;
KRASHENINNIKOVA, N.G.; CHECHIK, E.A.; NEYMAN, B.G.; KORKUSHKO,
O.V.

Organization and first results of the work of a specialized team
to control thrombotic complications in Kiev. Vrach.delo no.1:108-
109 Ja '63. (MIRA 16:2)

1. Kiyevskaya stantsiya skoroy meditsinskoy pomoshchi.
(KIEV---THROMBOSIS) (KIEV---EMBOLISM)

ZIL'BERMAN, D.B.; KARPENKO, V.N.

Significance of determining C-reactive protein in some clinical hematological syndromes. Probl. gemat. i perel. krovi 9 no.7: 24-26 J1 '64. (MIRA 18:3)

1. Otdel klinicheskoy gematologii (zav. - prof. D.N. Yanovskiy) Ukrainskogo nauchno-issledovatel'skogo instituta klinicheskoy meditsiny imeni Strazhesko (dir. - prof. A.I. Mikhnev), Kiyev.

KORKUSHKO, O.V.; ZIL'BERMAN, D.B.; YANOVSKIY, A.D.; KAMENETSKAYA, I.Ya.;
KRASHENINNIKOVA, N.G.; CHECHIK, E.A.

Some characteristics of the clinical aspects and treatment of the
acute period of myocardial infarct in elderly and senile persons.
Vop. geron. i geriat. 4:179-185 '65. (MIRA 18:5)

1. Institut gerontologii AMN SSSR i Kiyevskaya stantsiya skoroy
meditsinskoy pomoshchi.

ZIL'BERMAN, D.B.; MOYBENKO, A.A.

New method for electrophoretic analysis of lipoproteids in blood serum by means of their preliminary staining. Lab. delo 7 no. 7: 16-18 JI '61. (MIRA 14:6)

1. Otdel klinicheskoy gematologii (zav. - prof. D.N. Yanovskiy) Ukrainskogo nauchno-issledovatel'skogo instituta klinicheskoy meditsiny imeni akademika N.D. Strazhesko. (PAPER ELECTROPHORESIS) (LIPOPROTEINS)

ZIL'BERMAN, D.B.

Changes in blood proteins in lymphogranulomatosis and lymphadenosis.
Vrach.delo no.10:36-40 0 '60. (MIRA 13:11)

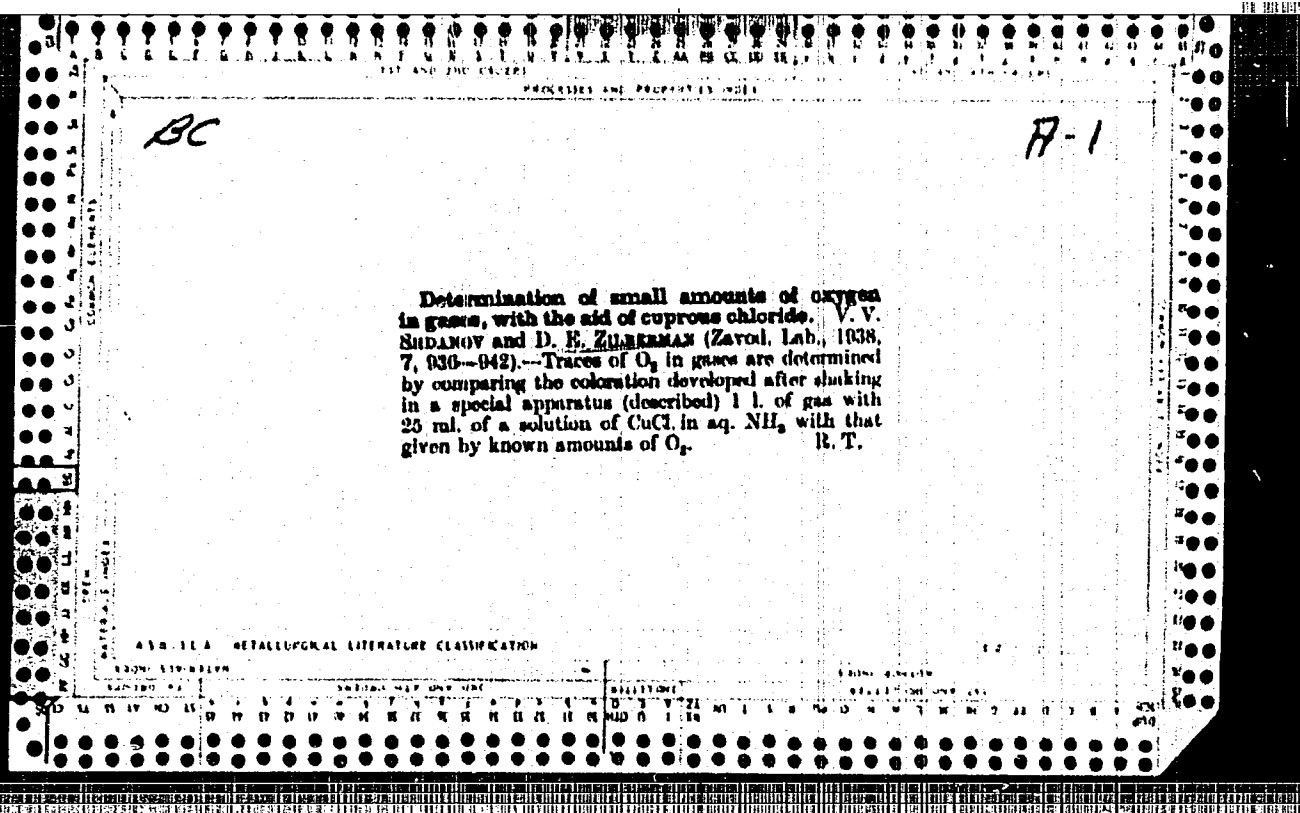
1. Otdel klinicheskoy gematologii (zav. - prof. D.N.Yanovskiy)
Ukrainskogo nauchno-issledovatel'skogo instituta klinicheskoy
meditsiny imeni akademika N.D.Strazhesko i Kieyvskaya stantsiya
skoroy meditsinskoy pomoshchi.
(HODOKIN'S DISEASE)
(LYMPHATICS--DISEASES)
(BLOOD PROTEINS)

ZIL'BERMAN, D.B.

Paraproteinemias combined with macroglobulinemia. Vrach.delo
no.1:47-52 Ja '63. (MIRA 1642)

1. Otdel klinicheskoy gematologii (zav. -- prof. D.N. Yanovskiy)
Ukrainskogo nauchno-issledovatel'skogo instituta klinicheskoy
meditsiny imeni akademika N.D. Strazhesko i Kiyevskaya stantsiya
skoroy pomoshchi.

(BLOOD-DISEASES) (BLOOD PROTEINS) (MACROGLOBULINS)



ca.

Calculation of the loss of product in a vacuum evaporation system with a water barometer condenser, D. H. Zilberman and E. Ya. Margulis. *J. Chem. Ind. (U. S. S. R.)* 16, No. 9, 33-7 (1953). H. M. Leicester.

Evaporative Index. Geo. S. Gardner. *Ind. Eng. Chem.* 23, 220-21 (1940).—A simplified approx. form of the Maxwell-Stefan equation is given for evapn. from a liquid surface: $E = (K D_i M_i P_i)$, where E is evapn. rate, g./hr./sq. cm., D_i is diffusivity, sq. cm./sec., M_i is mol. wt., P_i is vapor pressure, mm. Hg., $K = a/MTP_i$, where a is a proportionality const. K was detd. under const. conditions, with artificial convection, at 20°, for 14 org. liquids boiling from 53° to 193°, and plotted against the index $(D_i M_i P_i)$. E , varying from 0.0143 to 1.197, is closely given especially by $0.00399 (D_i M_i P_i)^{0.67}$. Doolittle's values, using natural convection (*C. A.* 50, 307²), are similarly analyzed, and show direct proportionality, with fair agreement. Vapor pressures from room temp. to the b. p. were detd. on all liquids. Cor curves (*C. A.* 47, 2360) are given for those for which satisfactory values do not exist in the literature. From these charts, the vapor pressures in mm. Hg at 20° and the normal b. p. are: acetone, 30, 100°; butyl alcohol, 9.0, 120°; benzene, 27, 101°; diacetone ac., 1.05, 170°; diethylamine, 35, 101°; diisobutylene, 20, 180°; ethylene glycol monomethyl ether, 10, 131°; amyl acetate, 20, 147°. Thirteen references. H. W. S.

ALB-514 METALLURGICAL LITERATURE CLASSIFICATION

PROCESSES AND PROPERTIES INDEX

21

Regeneration by desorption with a rich gas, of spent oil used for the removal of naphthalene from coke-oven gases. V. V. Zhdanov and D. E. Zil'bermann. *Coke and Chem. (U. S. S. R.)* 9, No. 3:42-4 (1957) *Chimie & Industrie* 42, 642.—At const. temp. the yield of regenerated gas oil decreases with increase in the degree of desorption of naphthalene from the oil, but the decrease in yield is greater than the reduction in naphthalene concn. At const. naphthalene concn. the yield of regenerated gas oil increases with rise in desorption temp.; the latter should be at least 190°. The quantity of rich gas required increases especially during the elimination of the last traces of naphthalene from the oil. A. Papineau-Couture

METALLURGICAL LITERATURE CLASSIFICATION

PROCESSES AND PROPERTIES INDEX

21

0a

Replacing phosphorus in the routine analysis of the methane fraction of coke-oven gas. D. E. Zilberman. *Zhurnal Prikl. Khim.* 10, 591 (1941). Replacing yellow P is inconvenient because of the inflammability and the cost of P. It is proposed to substitute in place of O detn. by P, the detn. of unsatd. hydrocarbons by $KMnO_4$ in the analytical control of the production of coke-oven gas. A soln. of 90 ml. of 0.0006% $KMnO_4$ and 10 ml. of 0.01% $NaHCO_3$ is suitable. A 20-ml. portion of $KMnO_4$ remains in the reaction vessel for 3.5 min., and the gas is passed with a velocity of 39-40 l./hr. If the soln. remains more pink or is of the same color as the standard soln. for 3.5 min., then the gas does not contain an increased quantity of unsatd. hydrocarbons. A yellow color indicates that the gas contains an increased content of unsatd. hydrocarbons. The yellow color appears after 1 min. if the content of unsatd. compls. is higher than 1.0%. Appearance of the yellow color at the end of the 3.5-min. period indicates approx. 0.6% of the unsatd. compls.; a yellow color after 2 min., 0.73%. $KMnO_4$ is safe and inexpensive, and the reaction is dependable. The content of O in the gas and the temp. have no effect on the reaction. The disadvantages are excessive bulkiness of the equipment and a less sharp reaction.

W. R. Henn

430-35A METALLURGICAL LITERATURE CLASSIFICATION

CA

7

Determination of moisture in ammonium nitrate melt. D. K. Zimmerman—*Zoodolgy Lab. 11, No. 1, 1081-0 (1945)*.—The object of the expts. was to obtain concn.-temp. curves for pressures of 500, 540, and 580 mm. Hg and to interpolate the intermediate values in 5-mm. intervals. The b.p. of the melt was detd. in a Westinghouse flask equipped with a thermostat and connected to a manometer. The flask was heated on an air bath. The concn.-temp. curve at 500 mm. Hg was used as the basis for constructing the other curves. The sample was brought to boiling at a higher pressure (540 mm.), the b.p. observed, the pressure reduced to 500 mm., and the temp. increased until the new b.p. was reached. This temp. was observed, the concn. of the soln. detd. from the 500-mm. curve, and the curve for the 540-mm. pressure constructed from this concn. and the b.p. at 540 mm. The 580-mm. curve was constructed in a similar manner. The 520-mm. curve was constructed from data of chem. analyses and corrected by the 500- and 540-mm. curves. A table of the concn. of NH_4NO_3 melts which depend on the temp. and pressure was made for every 2° and 5 mm. Hg. The method for rapid detn. of moisture in NH_4NO_3 was checked under production conditions. The mean deviations of the results obtained from the table and as detd. by drying to const. wt. of NH_4NO_3 shavings (whose moisture content is very similar to that of the melt) were approx. 0.1%.

W. R. Henn

ASH. S. A. METALLURGICAL LITERATURE CLASSIFICATION

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| FROM DIVISION | BY | DATE | CLASSIFIED | EXPIRES | REMARKS |
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1ST AND 2ND COLUMNS PROCESSED AND PROPERTIES INDEX

T

F 2084. REPLACING PHOSPHORUS IN ROUTINE ANALYSIS OF METHANE FRACTION OF COKE-OVEN GAS. Zilberman, D.K. (Zavodskaya Lab., 1941, 10, 594-6; Chem. Abstr., 1946, 40, 7567).

Determination of O in the CH₄ fraction of coke-oven gas by means of yellow P is inconvenient because of the inflammability and the cost of P. It is proposed to substitute in place of O determination by P, the determination of unsaturated hydrocarbons by HNO₂ in the analytical control of the production of coke-oven gas. A solution of 90 ml. of 0.0006% HNO₂ and 10 ml. of 0.01% NaHCO₃ is suitable. A 20-ml. portion of HNO₂ remains in the reaction vessel for 3-5 min. and the gas is passed with a velocity of 39-40 l./hr. If the solution remains more pink or is of the same colour as the standard solution for 3.5 min., then the gas does not contain an increased quantity of unsaturated hydrocarbons. A yellow colour indicates that the gas contains an increased content of unsaturated hydrocarbons. The yellow colour appears after 1 min. if the content of unsaturated compounds is higher than 1.0%. Appearance of the yellow colour at the end of the 3.5-min. period indicates approximately 0.6% of the unsaturated

Common Element

Common Variable

ASB-11A METALLURGICAL LITERATURE CLASSIFICATION

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compounds, a yellow colour after 2 min., 0.75%. KMnO_4 is safe and inexpensive, and the reaction is dependable. The content of O in the gas and the temperature have no effect on the reaction. The disadvantages are excessive bulkiness of the equipment and a less sharp reaction.

PROCESSING AND PROPERTIES INDEX

F

2601. STEAM-AMMONIA CLEANING OF REAR HEATING SURFACES IN BOILER EQUIPMENT. Zilberman, D. (Za Ekon. Topliva (Fuel Econ.), Jan. 1951, 36-37).

Attempts to clean scale from heating surfaces of water economizers and air preheaters by steam blast merely aggravate their condition, as the moisture from the steam cements the ash. The writer gives a brief account of successful results obtained in the removal of scale from the rear heating surfaces of such units by means of steam-ammonia cleaning. (L).

ASS. S.L.A. METALLURGICAL LITERATURE CLASSIFICATION

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| 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 | 46 | 47 | 48 | 49 | 50 | 51 | 52 | 53 | 54 | 55 | 56 | 57 | 58 | 59 | 60 | 61 | 62 | 63 | 64 | 65 | 66 | 67 | 68 | 69 | 70 | 71 | 72 | 73 | 74 | 75 | 76 | 77 | 78 | 79 | 80 | 81 | 82 | 83 | 84 | 85 | 86 | 87 | 88 | 89 | 90 | 91 | 92 | 93 | 94 | 95 | 96 | 97 | 98 | 99 | 100 |
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KIL'MAN, Ya.I.; ZIL'BERMAN, D.E.

Corrosion during the production of ammonium nitrate by the
one-step (nonevaporation) method. Zhur. prikl. khim. 37 no.12:
2631-2636 D '64. (MIRA 18:3)

34720

S/137/62/000/002/104/14.
A060/A101

17.2300
11.1160

AUTHORS: Kil'man, Ya. I., Zil'berman, D. E.

TITLE: Corrosion of 1X18H9T (1Kh18N9T) steel in a mixture of nitric acid and ammonium nitrate at high temperatures

PERIODICAL: Referativnyy zhurnal, Metallurgiya, no. 2, 1962, 82, abstract 2I560 ("Vestn. tekhn. i ekon. inform. N.-1. in-t tekhn.-ekon. issled. Gos. kom-ta Sov. Min. SSSR i khimii", 1961, no. 2, 66 - 68)

TEXT: The investigations were carried out upon protected polished specimens of 1Kh18N9T steel. The tests were carried out simultaneously in pure HNO₃ and HNO₃ with an admixture of 5, 10, and 20% NH₄NO₃ for a period of 100 hours. The first series of tests were carried out in 57% HNO₃ at boiling temperature. For the first 100 hours the admixture of NH₄NO₃ reduced the corrosion slightly, but later on the corrosion of the specimens in the HNO₃ containing 20% NH₄NO₃ was increased. The corrosion of 1Kh18N9T steel in boiling HNO₃ is very great and partakes of a pitting nature. In the second series of tests the acid was not permitted to boil. The result of that test shows that 1Kh18N9T steel may be

Card 1/2

Corrosion of...

S/137/62/000/002/104/144
A060/A101

utilized in apparatus operating with HNO_3 of the indicated concentration at temperatures up to 100°C .

N. Yudina

[Abstracter's note: Complete translation]

X

Card 2/2

... (b) (1) (c) (d) (e) (f) (g) (h) (i) (j) (k) (l) (m) (n) (o) (p) (q) (r) (s) (t) (u) (v) (w) (x) (y) (z) (aa) (ab) (ac) (ad) (ae) (af) (ag) (ah) (ai) (aj) (ak) (al) (am) (an) (ao) (ap) (aq) (ar) (as) (at) (au) (av) (aw) (ax) (ay) (az) (ba) (bb) (bc) (bd) (be) (bf) (bg) (bh) (bi) (bj) (bk) (bl) (bm) (bn) (bo) (bp) (bq) (br) (bs) (bt) (bu) (bv) (bw) (bx) (by) (bz) (ca) (cb) (cc) (cd) (ce) (cf) (cg) (ch) (ci) (cj) (ck) (cl) (cm) (cn) (co) (cp) (cq) (cr) (cs) (ct) (cu) (cv) (cw) (cx) (cy) (cz) (da) (db) (dc) (dd) (de) (df) (dg) (dh) (di) (dj) (dk) (dl) (dm) (dn) (do) (dp) (dq) (dr) (ds) (dt) (du) (dv) (dw) (dx) (dy) (dz) (ea) (eb) (ec) (ed) (ee) (ef) (eg) (eh) (ei) (ej) (ek) (el) (em) (en) (eo) (ep) (eq) (er) (es) (et) (eu) (ev) (ew) (ex) (ey) (ez) (fa) (fb) (fc) (fd) (fe) (ff) (fg) (fh) (fi) (fj) (fk) (fl) (fm) (fn) (fo) (fp) (fq) (fr) (fs) (ft) (fu) (fv) (fw) (fx) (fy) (fz) (ga) (gb) (gc) (gd) (ge) (gf) (gg) (gh) (gi) (gj) (gk) (gl) (gm) (gn) (go) (gp) (gq) (gr) (gs) (gt) (gu) (gv) (gw) (gx) (gy) (gz) (ha) (hb) (hc) (hd) (he) (hf) (hg) (hh) (hi) (hj) (hk) (hl) (hm) (hn) (ho) (hp) (hq) (hr) (hs) (ht) (hu) (hv) (hw) (hx) (hy) (hz) (ia) (ib) (ic) (id) (ie) (if) (ig) (ih) (ii) (ij) (ik) (il) (im) (in) (io) (ip) (iq) (ir) (is) (it) (iu) (iv) (iw) (ix) (iy) (iz) (ja) (jb) (jc) (jd) (je) (jf) (jg) (jh) (ji) (jj) (jk) (jl) (jm) (jn) (jo) (jp) (jq) (jr) (js) (jt) (ju) (jv) (jw) (jx) (jy) (jz) (ka) (kb) (kc) (kd) (ke) (kf) (kg) (kh) (ki) (kj) (kk) (kl) (km) (kn) (ko) (kp) (kq) (kr) (ks) (kt) (ku) (kv) (kw) (kx) (ky) (kz) (la) (lb) (lc) (ld) (le) (lf) (lg) (lh) (li) (lj) (lk) (ll) (lm) (ln) (lo) (lp) (lq) (lr) (ls) (lt) (lu) (lv) (lw) (lx) (ly) (lz) (ma) (mb) (mc) (md) (me) (mf) (mg) (mh) (mi) (mj) (mk) (ml) (mm) (mn) (mo) (mp) (mq) (mr) (ms) (mt) (mu) (mv) (mw) (mx) (my) (mz) (na) (nb) (nc) (nd) (ne) (nf) (ng) (nh) (ni) (nj) (nk) (nl) (nm) (nn) (no) (np) (nq) (nr) (ns) (nt) (nu) (nv) (nw) (nx) (ny) (nz) (oa) (ob) (oc) (od) (oe) (of) (og) (oh) (oi) (oj) (ok) (ol) (om) (on) (oo) (op) (oq) (or) (os) (ot) (ou) (ov) (ow) (ox) (oy) (oz) (pa) (pb) (pc) (pd) (pe) (pf) (pg) (ph) (pi) (pj) (pk) (pl) (pm) (pn) (po) (pp) (pq) (pr) (ps) (pt) (pu) (pv) (pw) (px) (py) (pz) (qa) (qb) (qc) (qd) (qe) (qf) (qg) (qh) (qi) (qj) (qk) (ql) (qm) (qn) (qo) (qp) (qq) (qr) (qs) (qt) (qu) (qv) (qw) (qx) (qy) (qz) (ra) (rb) (rc) (rd) (re) (rf) (rg) (rh) (ri) (rj) (rk) (rl) (rm) (rn) (ro) (rp) (rq) (rr) (rs) (rt) (ru) (rv) (rw) (rx) (ry) (rz) (sa) (sb) (sc) (sd) (se) (sf) (sg) (sh) (si) (sj) (sk) (sl) (sm) (sn) (so) (sp) (sq) (sr) (ss) (st) (su) (sv) (sw) (sx) (sy) (sz) (ta) (tb) (tc) (td) (te) (tf) (tg) (th) (ti) (tj) (tk) (tl) (tm) (tn) (to) (tp) (tq) (tr) (ts) (tt) (tu) (tv) (tw) (tx) (ty) (tz) (ua) (ub) (uc) (ud) (ue) (uf) (ug) (uh) (ui) (uj) (uk) (ul) (um) (un) (uo) (up) (uq) (ur) (us) (ut) (uu) (uv) (uw) (ux) (uy) (uz) (va) (vb) (vc) (vd) (ve) (vf) (vg) (vh) (vi) (vj) (vk) (vl) (vm) (vn) (vo) (vp) (vq) (vr) (vs) (vt) (vu) (vv) (vw) (vx) (vy) (vz) (wa) (wb) (wc) (wd) (we) (wf) (wg) (wh) (wi) (wj) (wk) (wl) (wm) (wn) (wo) (wp) (wq) (wr) (ws) (wt) (wu) (wv) (ww) (wx) (wy) (wz) (xa) (xb) (xc) (xd) (xe) (xf) (xg) (xh) (xi) (xj) (xk) (xl) (xm) (xn) (xo) (xp) (xq) (xr) (xs) (xt) (xu) (xv) (xw) (xx) (xy) (xz) (ya) (yb) (yc) (yd) (ye) (yf) (yg) (yh) (yi) (yj) (yk) (yl) (ym) (yn) (yo) (yp) (yq) (yr) (ys) (yt) (yu) (yv) (yw) (yx) (yz) (za) (zb) (zc) (zd) (ze) (zf) (zg) (zh) (zi) (zj) (zk) (zl) (zm) (zn) (zo) (zp) (zq) (zr) (zs) (zt) (zu) (zv) (zw) (zx) (zy) (zz)

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ACCESSION NR. AP5002130

ZIL'BERMAN, D. I.

operation of metallurgical furnaces. Moskva, Gos. energ. izd-vo, 1952. 89 p.
(54-18958)

TN677.Z5

ZIL'BERMAN, D.I., inzhener.

Wear of shaft mill beaters. Energetik 1 no.1:30-34 Je '53. (MLRA 6:8)
(Milling machinery)

ZIL'BERMAN, D.I.

Operation of shaft mills. Energetik 2 no.1:39-40 Ja '54.

(MIRA 7:1)

(Furnaces)

ZIL'BERMAN, D.I., inzhener.

Productivity and power consumption of coal-pulverizing mills.
Energetik 2 no.5:29-32 My '54. (MLRA 7:6)
(Milling machinery)

ZIL'BERMAN, D. I.

AID P - 3717

Subject : USSR/Electricity
Card 1/1 : Pub. 29 - 22/25
Author : Zil'berman, D. I., Eng.
Title : ~~Performance of unit system coal mills with reduced rotor speed~~
Periodical : Energetik, 3, 12, 27-29, D 1955
Abstract : The author describes the results of investigations made by the All-Union Heat Engineering Institute and by the Central Scientific Research Institute for Boilers and Turbines with coal mills of the ShMA 1660/2004 type. The coal mill was tested at various rotor speeds, and power consumption and pulverized coal grain sizes measured. The author presents the results of tests. Two tables, 2 diagrams.
Institution : None
Submitted : No date

Subject : USSR/Heat Engineering AID P - 4373

Card 1/1 Pub. 110-a - 18/19

Author : Zil'berman, D. I., Eng.

Title : "O sbornike instruktsiy po obsluzhivaniyu kotlov i topochnykh ustroystv (On the rules for servicing boilers and furnaces) Gosenergoizdat, 1954.

Periodical : Teploenergetika, 3, 4, 63-64, Ap 1956

Abstract : The author reviews an article written by V. I. Maslov on this subject which appeared in the No. 4, 1955 issue of this magazine and severely criticizes the rules pointing out discrepancies and lack of thorough detailed instructions.

Institution : None

Submitted : No date

ZIL'BERMAN, D.I.

ZIL'BERMAN, D.I., inzhener.

Review of the directive on repairing crushing machines used in mines.
Elek.sta.28 no.7:95-96 Jl '57. (MLRA 10:9)
(Crushing machinery)

ZIL'BERMAN, D.I., inzh.

Burners of shaft-mill furnaces. Energetik 3, 1961.

(Furnaces)

ZIL'BERMAN, D.I., inzh.

Commutation network of large thermal electric power plants with
consolidated blocks. Elek. sta. 34 no.9:47-50 S '63.

(MIRA 16:10)

2.II. BERMAN, D.I., inzh.

Concerning the quality of dust obtained from hammer mills equipped
with different separators. Energetik 9 no.7:5-9 JI '61.

(MIRA 14:9)

(Milling machinery) (Coal, Pulverized)

SOV/96-59-5-18/19

AUTHOR: Zil'berman, D.I., Engineer

TITLE: Review of the Book by V.M.Popov and A.M.Shabarov
"The Combustion of Peat in Boiler Furnaces"
1958, 86 pp (O knige V.M.Popova i A.M.Shabarova "Szhiganiye
Torfa v Topkakh Kotlov,, Gosenergoizdat, 1958, 86 str.)

PERIODICAL: Teploenergetika, 1959, Nr 5, p 95 (USSR)

ABSTRACT: The book generalises experience of peat combustion and so may be useful to workers in power stations. However, the general tone of the review is critical because of the many defects in the book: it needs extensive revision to make it suitable for wide circles of power engineers concerned with burning peat.

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ZIL'BERMAN, D.I., inzh.

New tangential shaft-type impact mills developed by the Central
Boiler and Turbine Institute. Energetik 6 no. 1:29-31 Ja '58.

(MIRA 11:8)

(Pulverizers)

SOV-91-58-10-26/35

AUTHOR: Zil'berman, D.I., Engineer

TITLE: Improved Methods of Feeding Damp Fuel Into Boiler Units
(Uluchsheniye podachi vlazhnykh topliv k kotel'nym agrogatam)

PERIODICAL: Energetik, 1958, Nr 10, pp 25 - 28 (USSR)

ABSTRACT: A frequent cause of difficulty in the operation of boiler installations is the poor friability of the fuel, caused by an excessive quantity of free moisture in it. This causes blockages in the feed system. However, the friability is also influenced by other factors, such as the size of the pieces of fuel, the quantity and quality of the ash, and particularly the clay content. The author gives the statistics of various types of coal to illustrate these statements, and proceeds to discuss various means by which the fuel can be prevented from jamming in the feeder mechanism: 1) the fuel is less likely to get stuck in the mechanism if the temperature in the fuel supply house is kept reasonably high, i.e. from + 20 to + 25° C. Water-heated pipes with a temperature not above 70° C can also be laid under the lower arms of the conveyer-belts; 2) if the fuel gets stuck on the conveyer-belts, the latter can be cleansed by means of rotating spiral knives made out of rubberized strips and

Card 1/3

Improved Methods of Feeding Damp Fuel Into Boiler Units SOV-91-58-10-26/35

fastened to a shaft which revolves at 200 rpm. Continuously working scrapers are also recommended; 3) the addition of dry fuel to the damp fuel; 4) the avoidance of all kinds of beams and deflectors in the bunkers; 5) the use of bunkers with vertical or steep walls (over 65°) with cut-away or rounded-off corners and with the largest possible outlet cross-section; 6) the installation of fan-shaped grills in front of the crushers to separate the small fuel, thus preventing the crushers from getting clogged; 7) efficient separation of the small fuel has been achieved at one electric power station by means of rotary drum sieves. A drum of 700 mm in diameter and 2,000 mm in length working at 15 rpm can sieve over 100 tons per hour; 8) the installation of vibrators vastly improves the mobility of the fuel; 9) at one electric power station which burns milling peat, a device for controlling blockages of fuel in the bunkers has been tested which employs radioactive isotopes. It consists of a gamma-ray radiator which makes it possible not only to observe the amount of peat in the bunker, but also automatic-

Card 2/3

ZIL'BERMAN, D.V.I. Ionovich; BARSHEYN, I.K., kand.tekhn.nauk, red.;
IARIONOV, G.Is., tekhn.red.

[Increasing the efficiency and reliability of operation of
furnaces with shaft-type impact mills] Povyshenie ekonomichnosti
i nadezhnosti raboty shakhtno-mel'nichnykh topok. Moskva, Gos.
energ.isd-vo, 1958. 158 p. (MIRA 12:2)
(Furnaces)

ZILBERMAN, D. I. (fnzh)

Improving the feeding of damp fuel to boiler units. Energetik 6
no.10:25-28 0 '58. (MIRA 11:10)
(Boilers)

ZILBERMAN

PROCESSES AND PROPERTIES INDEX

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The movement of reacting substances in the production of sodium sulfate in tubular furnaces. A. M. Ginstling, D. M. Zilberman and N. V. Gvozdev. *Khim. Mashinostroeniya* 1939, No. 8, 8-9; *Khim. Refrat. Zhur.* 1940, No. 8, 14; cf. *C. A.* 33, 6007. — In the movement of friable substances in a rotating, inclined, tubular furnace it is necessary to det. the axial velocity of the substance and the length of time it remains in the furnace. The angle of the rise of the spiral line, along which the substance moves, is twice the angle of the furnace slope (α), if the angle of movement of the substance is close to 45° . The distance along the circumference of the cylinder of the furnace (w) is related to the distance along the axis (l) by $l = w \tan \alpha$ or $w = l \tan \alpha$. The axial velocity is $0.21 R n \tan \alpha$ m./sec. in which R is the radius of the furnace tube and n the no. of revolutions per min. The time that the substance remains in the furnace is $t = KL/l$, L being the length of the furnace, and K the coeff. of friction, detd. for an exptl. tubular furnace as applied to the movement of the mass obtained from the reaction of NaCl with H_2SO_4 . The av. value of K was 2.05. If K and any 3 of L, l, n and α are known, it is possible to det. easily the 4th parameter.

W. R. Hean

ASIS-ISA METALLURGICAL LITERATURE CLASSIFICATION

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| APR 1941 | APR 1941 | APR 1941 | APR 1941 |

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ZIL'BERMAN, F.A., dots.

Reactivity of the physiological system of connective tissue in alloxan diabetes. Medych.zhur. 16:269-277 '47. (MIRA 10:12)

1. Z kafedri patologichnoi fiziologii (zav. kafedri - chl.-kor, AN URSS, prof. Ye.O.Tatarinov) Kiivskogo ordena Trudovogo Chervonogo Prapora medicnogo institutu im. akad. O.O.Bogomol'tsa.
(CONNECTIVE TISSUES) (DIABETES)

ZIL'BERMAN, F.Ya., inzh.; SARKISOV, M.A., kand. tekhn. nauk

"Production costs of electric and thermal power". Elek. sta. 35
no.7:87-88 J1 '64.
(MIRA 17:11)

ZIL'BERMAN, G., arkhitektor

A pleasant surprise. Grazhd. av. 21 no.9:16-17 S '64.

(MIRA 17:10)

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PROCESSES AND PRESENTED DATA

Chlorination of benzene. N. N. Vorozhkov, G. M. Zilberman and V. M. Grigor'ev. Russ. 40,367, April 1956. The chlorination is carried out in the liquid phase in towers in the presence of a catalyst. $C_{6}H_6$ and Cl_2 are continuously introduced into the app. in such manner that the catalyst is always covered with the liquid.

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ASB-55A METALLURGICAL LITERATURE CLASSIFICATION

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