KOZLOVSKIY, M.T.; BUKHMAN, S.P.; ILYUSHCHENKO, V.M.; ZABOTIN, P.I.

Cementation of thallium from industrial solutions by zinc amalgam.
Trudy Inst. khim. nauk AN Kazakh. SSR 3:15-19 '58.
(MIRA 12:3)

(Thallium--Metallurgy) (Amalgamation)

KOSLOVSKIY, M.T.; ILYUSHCHENKO, V.M.; ZABOTIN, P.I.; NOSEK, M.V.; BUKHMAN, S.P.; ZEBREVA, A.I.

Electrolytic decomposition of amalgams during production of thallium from dusts at the Chimkent lead smelting and refining works. Trudy Inst. khim. nauk AN Kazakh. SSR 3:20-28 '58. (MIRA 12:3)

(Amalgamation) (Thallium--Electrometallurgy)

BUKHMAN, S.P.; MOSEK, M.V.

Polarographic determination of indium. Trudy Inst. khim. nauk AN Kazakh. SSR 3:39-44 '58. (MIRA 12:3)
(Indium--Analysis) (Polarography)

AUTHORS: Bukhman, S.P., Nosek, M.V., Kozlovskiy, K.T. 32-24-4-4/67

TITLE: An Accelerated Method for the Polarographic Determination of Indium (Uskorennyy metod polyarograficheskogo opredeleniya indiya)

PERIODICAL: Zavodskaya Laboratoriya, 1958, Vol. 24, Nr 4, pp. 392-395 (USSR)

ABSTRACT: A number of tests confirmed the fact that indium from 10% sulfuric acid solutions with zinc amalgam does not cement. This knowledge is utilized for the elimination of accompanying elements. In the case of the treatment of indium solutions with zinc amalgam, copper, thallium, and cadmium are reduced to the metal and penetrate into the amalgam, whereas arsenic III and partly antimony, tellurium and selenium remain on the amalgam surface. The latter may lead to part of the indium goingover into the amalgam. In order to remove arsenic V, which cannot be quantitatively reduced during treatment with zinc amalgam without causing a loss of indium, the solution is treated with iron reduced in hydrogen and in a 4n sulfuric acid medium. During polarization itself, it is true that also the presence of antimony, which must first be removed, disturbs. From the process of analysis given it may be seen that a

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An Accelerated Method for the Polarographic Determination of Indium

32-24-4-4/67

2% zinc amalgam solution is used and that at least 75 g/l NaCl is added. However, polarograms are made within a potential range of from -0.45 -0.8 V. The method was employed for determining indium in the dust of a lead mine and gives results which agree well with those obtained by the usual method of determination of the Giutsvetmet. If two standard samples are used determination is said to take from 40 to 50 minutes. Results are given in a table. There are 1 figure, 2 tables, and 7 references, 6 of which are Soviet.

ASSOCIATION: Institut khimicheskikh nauk Akademii nauk Kazakhskoy SSR (Institute for Chemical Sciences AS Kazakh SSR)

1. Indium compounds--Analysis 2. Indium--Determination
3. Metals--Separation 4. Polarogrpahic analysis

Card 2/2

BUKHMAN S. P.

KRAVTSOV, V. I.

5(4) PHASE I BOOK EXPLOITATION SOV/2216

Soveshchaniye po elektrokhimii. 4th, Moscow, 1956.

Trudy... [Sbornik] (Transactions of the Fourth Conference on Electrochemistry; Collection of Articles) Moscow, Izd-vo AN SSSR, 1959. 868 p. Errata slip inserted. 2,500 copies printed.

Sponsoring Agency: Akademiya nauk SSSR. Otdeleniye khimicheskikh nauk.

Editorial Board: A.N. Frumkin (Resp. Ed.) Academician, O.A. Yesin, Professor; S.I. Zhdanov (Resp. Secretary), B.N. Kabanov, Professor, S.I. Zhdanov (Resp. Secretary), B.N. Kabanov, Professor; Ya. M. Kolotyrkin, Doctor of Chemical Sciences; V.V. Losev, P.D. Lukovtsev, Professor; Z.A. Solov'yeva; V.V. Stender, Professor; and O.M. Florianovich; Ed. of Publishing House: N.G. Yegorov; Tech. Ed.: T.A. Prusakova.

PURPOSE: This book is intended for chemical and electrical engineers, physicists, metallurgists and researchers interested in various aspects of electrochemistry.

COVERAGE: The book contains 127 of the 138 reports presented at the Fourth Conference on Electrochemistry sponsored by the Department of Chemical Sciences and the Institute of Physical Chemistry, Academy of Sciences, USSR. The collection pertains to different branches of electrochemical kinetics, double layer theories and galvanic processes in metal electrodeposition and industrial electrolysis. Abridged discussions are given at the end of each division. The majority of reports not included here have been published in periodical literature. No personalities are mentioned. References are given at the end of most of the articles.

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BUKHMAN, S.P.; NOSEK, M.V.; KOZLOVSKIY, M.T.

Reduction of arsenic by zinc amalgam. Report No.1. Izv. AN Kazakh. SSR.Ser. khim. no.1:69-76 '60. (MIRA 13:11)
(Arsenic) (Zinc-mercury alloys)

NOSEK, M.V.; BUKHMAN, S.P.; KOZLOVSKIY, M.T.

Reduction of arsenic by zinc amalgam. Report No. 2. Izv. AN Kazakh. SSR.Ser. khim. no.1:77-85 '60. (MIRA 13:11)
(Arsenic) (Zinc-mercury alloys)

KOZLOVSKIY, M.T.; BUKHMAN, S.P.; NOSEK, M.V.

Effect of copper ions on the reduction of arsenic by zinc amalgam. Trudy Inst.khim.nauk AN Kazakh.SSR 6:115-122 '60. (MIRA 14:4)
(Arsenic) (Copper) (Zinc)

BUKHMAN, S.P.; NOSEK, M.V.; KOZLOVSKIY, M.T.

Reduction of arsenic by zinc amalgam in the presence of iron and antimony ions. Trudy Inst.khim.nauk AN Kazakh.SSR 6:123-130 '60. (MIRA 14:4)

(Arsenic) (Zinc)

NOSEK, M.V.; BUKHMAN, S.P.; KOZLOVSKIY, M.T.

Effect of temperature on the reduction of arsenic by zinc amalgam.
Trudy Inst.khim.nauk AN Kazakh.SSR 6:131-137 '60. (MIRA 14:4)
(Arsenic) (Zinc)

30661

S/137/61/000/010/011/056
A006/A101

18.3100 1067 1521, 1454

AUTHOR: Bukhman, S. P.

TITLE: Carburizing of indium with zinc amalgam

PERIODICAL: Referativnyy zhurnal. Metallurgiya, no. 10, 21, abstract 100157 ("Tr. In-ta khim. nauk. AN KAzSSR" 1960, 6, 138 - 143)

TEXT: Experiments on In carburizing were made in a carburizing cell, equipped with a mixer, operating at a rotation speed of the shaft as high as 1,200 - 1,300 rpm. The amalgam-solution ratio was 1:5 in all the tests. It was found that In was carburized with Zn amalgam from sulfuric acid solutions, containing a small amount of free H_2SO_4 (0.1%). With higher acidity the carburizing rate decreases, and at 10% acidity all the In remains practically in the solution. There are 10 references.

G. Svedtseya

[Abstracter's note: Complete translation]

Card 1/1

BUKHMAN, S.P.; NOSEK, M.V.; KOZLOVSKIY, M.T.

Effect on indium ions on the reduction of arsenic by zinc amalgam. Trudy Inst. khim. nauk AN Kazakh. SSR 9:122-130 '62. (MIRA 16:6)

(Arsenic) (Amalgams)
(Indium compounds)

NOSEK, M.V.; BUKHMAN, S.P.; KOZLOVSKIY, M.T.

Reduction of a mixture of tri- and pentavalent arsenic by zinc amalgam. Trudy Inst. khim. nauk AN Kazakh. SSR 9:131-134 '62. (MIRA 16:6)

(Arsenic) (Reduction, Chemical) (Amalgams)

S/850/62/009/000/007/012
B117/B186

AUTHOR: Bukhman, S. P.

TITLE: Effect of zinc ions on the cementation of indium with zinc amalgam

SOURCE: Akademiya nauk Kazakhskoy SSR. Institut khimicheskikh nauk. Trudy. v. 9. Alma-Ata, 1962. Elektrokhimiya rastvorov i metallicheskikh sistem, 135-138

TEXT: The effect of zinc ions on the extraction degree of indium during cementation from a 1 and 0.1% H_2SO_4 solution was studied at different temperatures (20 - 80°C). 100 ml solution (100 mg/l In) with different $ZnSO_4$ content and 20 ml zinc amalgam (500 mg Zn) were stirred vigorously (1200-1300 r.p.m.) for 20 min in a water-heated cementation cell. Increased zinc concentrations in the solution were found to disturb the In extraction, especially in solutions of high H_2SO_4 concentration. The potential of Zn amalgam shifts toward electropositive values. A temperature rise supports the extraction but cannot completely eliminate the

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Effect of zinc ions on the ...

disturbing effect of zinc ions at higher concentration. A complete In extraction from weakly acid solutions is possible only after repeated treatment of the solution with fresh amalgam. If the solution contains an excess of cations (100-500 times the amount of In) which are reduced by zinc amalgam, it is recommended that hydrochloric or sulfuric solutions and NaCl be used for In extraction. In this case the extraction of indium is not affected by zinc ions, and indium is reduced without overvoltage. There are 2 tables.

Card 2/2

S/850/62/009/000/008/012
B117/B186

AUTHORS: Bukhman, S. P., Zabotin, P. I.

TITLE: Cementation of indium from sulfuric solutions in the presence of some surface-active additives with zinc amalgam

SOURCE: Akademiya nauk Kazakhskoy SSR. Institut khimicheskikh nauk. Trudy. v. 9. Alma-Ata, 1962. Elektrokhimiya rastvorov i metallicheskikh sistem, 139-142

TEXT: This is a study of the effect of sodium sulfite, sodium thiosulfate, and phthalic acid on the cementation of indium from sulfuric solutions with zinc amalgam using the method described by S. P. Bukhman (this paper, 135-138). Results: The extraction of indium depends on the concentration of $NaSO_4$ and $Na_2S_2O_3$. At higher additive concentrations, larger amounts of indium are extracted. The concentration of zinc ions affects the reduction rate but not the amount of indium extracted. At a higher concentration of zinc ions the potential of zinc amalgam shifts toward electropositive values. Indium extraction depends semilogarithmically on the acidity of solution. The experiments show that Na_2SO_4 and $Na_2S_2O_3$

under equal conditions, are more effective than sodium chloride additions when extracting indium from weakly acid solutions containing a large amount of zinc ions. Thus, only 80-85% indium was transferred into the amalgam by adding 100 g/l NaCl, as compared to 96-97% by 1 g/l $Na_2S_2O_3$. If acid solutions (H_2SO_4 > 1%) are used, the additives studied are less effective. Phthalic acid in acid or weakly acid solutions does not affect cementation. In neutral media, where it exists in the form of dissociate molecules, a slight increase in the degree of extraction was observed. The examinations confirmed the results of polarographic studies: During the reduction of indium, the above additives reduce the overpotential on the Hg electrode in sulfate solutions. There are 2 figures and 2 tables.

MURATOVA, Ye.B.; BUKHMAN, S.P.; NOSEK, M.V.

Reduction of trivalent arsenic on mercury and zinc-amalgam cathodes. Izv. AN Kazakh. SSR. Ser. tekh. i khim. nauk no.2: 15-25 '63. (MIRA 17:2)

DYUZHEVA, Ye B.; BUKHMAN, S.P.

Reduction of trivalent arsenic on amalgam cathodes. Trudy Inst. khim. nauk AN Kazakh.SSR 12:78-88 '64.

Electrolytic reduction of trivalent arsenic on a mercury cathode in the presence of copper ions. Ibid.:89-98

(MIRA 18:2)

BUKHMAN, S.P.; NOSEK, M.V.

Electrochemical study of zinc-nickel amalgams. Trudy Inst. khim. nauk AN Kazakh.SSR 12:99-104 '64.

Effect of nickel ions on the reduction of trivalent arsenic by zinc amalgam. Ibid.:105-108

Reduction of arsenic by zinc amalgam in the presence of tin alloys in solution. Ibid.:109-113

Amalgam method for the production of pure cadmium from cadmium sponge. Ibid.:183-185

(MIRA 18:2)

DRAGAVTSEVA, N.A.; BUKHMAN, S.P.; KOZLOVSKIY, M.T.

Reduction of arsenic by cadmium amalgam in sulfuric and hydrochloric acid solutions. Trudy Inst. khim. nauk AN Kazakh.SSR 12: 114-130 '64. (MIRA 18:2)

L 21200-65 EWT(m)/EWP(t)/EWP(b) IJP(c) JD
ACCESSION NR: AT5001026 S/2850/64/012/000/0183/0185

AUTHOR: Nosek, M.V., Bukhman, S.P.

TITLE: An amalgam method for obtaining pure cadmium from cadmium sponge

SOURCE: AN KazSSR. Institut khimicheskikh nauk. Trudy, v. 12, 1964. Elektrodnyye protsessy na tverdykh i zhidkikh elektrodakh (Electrode processes on solid and liquid electrodes), 183-185

TOPIC TAGS: amalgam refining, cadmium sponge, cadmium amalgam, cadmium refining, zinc amalgam

ABSTRACT: This method, which had been found successful for obtaining almost pure zinc and indium, was also applied experimentally to cadmium. The cadmium sponge (20-40% impurities) was dissolved in Hg or Zn amalgam in the presence of sulfuric acid, which also removes the oxidized layer from the sponge. The metallic cadmium passed into the Hg, its oxide into the sulfuric acid; metallic impurities also went into solution. Arsenic remained in suspension, since it is not soluble in either solvent. Cadmium was to be subsequently isolated by anode oxidation of the amalgam. In the experimental procedures, 2 kg of test material containing 49% Cd, 30% Zn and impurities was mixed with 1 liter Hg for 1 hour under a layer of sulfuric acid, after which the amalgam was

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L 21200-65
ACCESSION NR: AT5001026

removed; 93.3% of the Cd was recovered at the cathode upon electrolytic dissociation in a sulfate-ammonia eletrolyte in 5 successive portions of varying purity, while the initial 110 amp/m^2 current dropped to final 22 amp/m^2. The second portion (65.5% of the initial cadmium) represented the brand K-0, of high purity, while the third (24.3%) was spectrally pure. The first portion contained no zinc, since it formed an intermetallic compound with copper whose electrolytic dissociation proceeds at a potential close to that of copper; it thus appeared only in the last portion. The use of zinc amalgam reduced losses from oxidized cadmium. Orig. art. has: 1 table.

ASSOCIATION: Institut khimicheskikh nauk, Akademiya nauk Kazakhskoy SSR (Institute of Chemical Sciences, Academy of Sciences of the Kazakh SSR)

SUBMITTED: 00 ENCL: 00 SUB CODE: MM, IC

NO REF SOV: 004 OTHER: 002

Card 2/2

L 41348-65 EPA(s)-2/EWT(m)/T/EWP(t)/EWP(b)/EWA(c) Pt-10 IJP(c) JD/JG
ACCESSION NR: AP5000496 S/0078/64/009/012/2734/2737

AUTHOR: Dragavtseva, N. A.; Bukhman, S. P.; Muratova, Ye. B.; Kozlovskiy, M. T.

TITLE: The formation of arsenic amalgam

SOURCE: Zhurnal neorganicheskoy khimii, v. 9, no. 12, 1964, 2734-2737

TOPIC TAGS: arsenic amalgam, cadmium amalgam, electrolytic reduction, amalgam, arsenic solubility, mercury

ABSTRACT: While arsenic is almost insoluble in mercury, it was observed to pass into the mercury upon reducing tin amalgam in sulfuric acid solution. This occurred without the formation of intermetallic compounds. It will form an amalgam only at low sulfuric acid concentrations. Experimental reduction of trivalent arsenic by cadmium amalgam (2 at.%) in sulfuric acid solution showed its reduction to arsine and elemental arsenic which was partly suspended, partly amalgamated. The elemental form was converted to the trihydride upon continuing the reaction. Increasing arsenic content and decreasing acid concentration increased

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2

the arsenic amalgamation. The cadmium content was also found to influence this amalgamation, particularly the reaction rate and the distribution of elemental As between suspension and amalgam. In the absence of an excess of the metal-reducing agent and under maximally unfavorable conditions for hydrogen formation it was possible to obtain an As amalgam practically free of cadmium. Reduction from a concentrated solution (10 g/liter) yielded an almost quantitative amalgamation of e. g. 500 mg arsenic with 10 ml mercury. Electrolytic reduction at low current intensity (25-100 ma/cm^2) in 1N sulfuric acid solution continued for several days in the absence of hydrogen atoms on the electrode surface also gave good results. No suspension of elemental As and arsine were detected under these conditions. This electrolytically obtained amalgam is also a 2-phase system but differs from the one obtained through cementation by its lesser volume, and the As collects mainly in the upper layer which can easily be removed. Orig. art. has: 1 table and 2 figures

ASSOCIATION: Institut khimicheskikh nauk AN KazSSR (Institute of Chemical Sciences, AN KazSSR)

SUBMITTED: 24Aug63 ENCL: 00 SUB CODE: GC
NR REF SOV: 007 OTHER: 005

BUKHMAN, S.P.; NOSEK, M.V.; DEMCHENKO, Ye.S.

Bismuth cementation by the amalgams of various metals.
Zhur. prikl. khim. 37 no.9:1930-1936 S '64.
(MIRA 17:10)

L 53753-65 EWT(m)/EWP(t)/EWP(b) IJP(c) JD
ACCESSION NR: AP5012826 UR/0360/65/000/001/0013/0018

AUTHOR: Kozin, L. F.; Lavrik, I. V.; Bukhman, S. P.

TITLE: Cementation of indium by zinc amalgam in a multicompartment amalgamator with circulating electrolyte

SOURCE: AN KazSSR. Izvestiya. Seriya khimicheskikh nauk, no. 1, 1965, 13-18

TOPIC TAGS: indium recovery, zinc amalgam, precipitation

ABSTRACT: A four-compartment amalgamator with circulating electrolytes containing 9-10 g/l of metallic indium, 100 g/l NaCl, 100 and 75 g/l HCl (compositions approximating industrial) were used to study the cementation of indium by zinc amalgam in NaCl-HCl solutions. Each compartment contained 50 ml of saturated zinc amalgam. After the cementation, the indium present in the solutions was titrated with trilon B. The recovery of indium carried out in this manner can be calculated from the following formula:

$$\eta = (1 - x^n) \cdot 100\%,$$

where $x = \frac{C_1}{C_0}$ is the fraction of indium which does not undergo phase exchange in one

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L 53753-65
ACCESSION NR: AP5012826

of the amalgamator compartments, C_0 is the initial indium concentration in the solution for the given compartment, C_1 is the indium concentration in the solution after the phase exchange, n is the number of compartments in the amalgamator. The calculated values agreed well with experimental data. The authors also studied the recovery of indium as a function of the rate of stirring of the amalgam and solution, and as a function of the flow rate; the reaction rate was found to increase with the stirring rate. The cementation rate depends strongly on the electrolyte composition. Optimum conditions for indium recovery were determined. Orig. art. has: 5 figures and 2 tables.

ASSOCIATION: none

SUBMITTED: 11Jun64 ENCL: 00 SUB CODE: GC

NO REF SOV: 005 OTHER: 001

Card 2/2

KOZLOVSKIY, M.T.; DRAGAVTSEVA, N.A.; BUKHMAN, S.P.

Effect of certain metals on the reduction of trivalent arsenic with cadmium amalgam. Izv. AN Kazakh.SSR.Ser.khim.nauk 15 no.2:3-7 Ap-Je '65. (MIRA 18:9)

BUKHMAN, S.P.; DRAGAVTSEVA, N.A.; KOZLOVSKIY, M.T.

Reduction of trivalent arsenic by amalgams of a series of metals. Izv. AN Kazakh. SSR. Ser. khim. nauk 15 no.1:9-12 Ja-Mr '65. (MIRA 18:12)

1. Submitted Nov. 2, 1964.

KOZIN, L.F.; LAVRIK, I.V.; BUKHMAN, S.P.

Cementation of indium by zinc amalgam in a multisectional amalgamation pan with a flowing-through electrolyte. Izv. A.N Kazakh. SSR. Ser. khim. nauk 15 no.1:13-18 Ja-Mr '65. (MIRA 18:12)

1. Submitted June 11, 1964.

USSR/ Physics - Dynamics

Card 1/2 Pub. 123 - 11/17

Authors : Bukhman, S. V.

Title : Experimental study of the breaking up of a drop

Periodical : Vest. AN Kaz. SSR 11, 80-87, Nov 1954

Abstract : Experiments were conducted at the S. M. Kirov Kazakh State University to determine the conditions under which drops break up. The photographic method was used in these studies. Special attention was paid to determining the so-called "criterion of the breaking point" of a drop, i.e.,

$$D = \rho \frac{U^2 d}{\sigma}$$

Institution : .....

Presented by: Member-Correspondent of the Acad. of Sc., USSR G. A. Tikhov

Periodical : Vest. AN Kaz. SSR 11, 80-87, Nov 1954

Card 2/2 Pub. 123 - 11/17

Abstract : The author gives a more precise expression for the criterion, namely:

$$D' = \frac{\rho (U - v)^2 d}{\sigma}$$

in which the velocity of a drop v, is taken into account. The meaning of the symbols is as follow: is the density of the air stream in which the breaking of drops is investigated; U is the velocity of the stream; v is the velocity of a drop; d is the diameter of the drop and is the coefficient of the drop's surface tension. Six USSR references (1949-1953). Illustrations; tables; diagrams.

SOV/112-58-2-1890

Translation from: Referativnyy zhurnal, Elektrotekhnika, 1958, Nr 2, p 15 (USSR)

AUTHOR: Bukhman, S. V., and Chernov, A. P.

TITLE: On the Problem of Particles Motion in a Free Axially Symmetrical Jet (K voprosu o dvizhenii chastits v svobodnoy osesimmetrichnoy struye)

PERIODICAL: Izv. AN KazSSR, ser. energ., 1956, Nr 10, pp 114-118

ABSTRACT: Motion of particles in a 2-phase axially symmetrical jet depends on the following: particle coordinates, their mass, their density, "Midel" cross-section, radius of the nozzle out of which the jet emerges, etc. However, this motion can be described with a much smaller number of dimensionless complexes, which can be determined from the equation of particles motion and from the rate-of-discharge formulae. An example is considered of determining particles velocity in a free, axially-symmetrical dust-and-air stream. Experimental and calculated particle velocities are compared.

S.L.R.

Card 1/1

SOV/124-58-4-3798

Translation from: Referativnyy zhurnal, Mekhanika, 1958, Nr 4, p 18 (USSR)

AUTHOR: Bukhman, S. V.

TITLE: Research on Combustion Processes and on the Motion of Pulverized Coal Particles (Issledovaniye protsessov goreniya i dvizheniya ugol'noy pyli)

PERIODICAL: Izv. AN KazSSR. Ser. energ., 1956, Nr 11, pp 70-81

ABSTRACT: Results of the following are described: 1. Research on the laws governing the motion of particles in dust-air jets; 2. Theoretical and experimental studies of the surface combustion rate and the surface temperatures of the coal particles; 3. Improvement in optical-pyrometer photography methods of the direct measurement of the temperature of falling coal particles. On the basis of the experiments and computations performed it is shown that it is possible to make computations pertaining to the motion of coal-dust particles in an air stream by disregarding the change of particle mass and by considering the particles as spherical. Experiments consisted of measurement of particle velocities of gypsum and naphthalene of various sizes in an air stream issuing from a nozzle. The velocity of the particles

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Research on Combustion Processes (cont.)

was determined by the stroboscopic method. The determination of the temperature and rate of combustion of coal particles was performed in an installation consisting of a combustion chamber equipped with an observation window, a feeder for the particles, and a photographic camera fitted with color filters. The rate of combustion of the particles was determined by the change in weight resulting from the combustion during the transit of the particles through the chamber. The temperatures of the particles were determined by the method of optical pyrometry as follows: The burning particles flying through the chamber were photographed through two color filters together with the pyrometer filament heated to a certain temperature; photos were taken at different exposures. Experiments with combustion of electrode carbon have shown that the surface rate of particle combustion, as well as the surface temperatures, are in good agreement with the values received from computations based on the theory of the heat balance of combustion. The feasibility of the direct measurement of the temperature of burning particles by the method of optical-pyrometer photography has also been demonstrated.

1. Coal--Combustion 2. Particles--Motion

Yu. F. Dityakin

Card 2/2

BUKHMAN, S. V. Cand Tech Sci -- (diss) "Study of the mechanism of movement and combustion of coal dust." Alma-Ata, 1957. 11 pp with graphs, 20 cm.(Acad Sci Kazakh SSR. Inst of Power Engineering), 120 copies (KL, 15-57, 106)

BUKHMAN, S.V.

Combustion time of pulverized coal. Izv.AN Kazakh.SSR.Ser. energ. no.1:68-71 '58. (MIRA 12:6)
(Coal, Pulverized)

BUKHMAN, S. V.

"Correct flow and combustion, etc.," in book Conference on applications of gas dynamics, "TRUD" series, Publishing Office of the Academy of Science of the Dazakh SSR, Alma-Ata, 1959.

BUKHMAN, S.V.

. 10(2) PHASE I BOOK EXPLOITATION SOV/2271

Soveshchaniye po prikladnoy gazovoy dinamike. Alma-Ata, 1956

Trudy (Transactions of the Conference on Applied Gas Dynamics) Alma Ata, Izd-vo AN Kazakhskoy SSR, 1959. 235 p. Errata slip inserted. 1,000 copies printed.

Sponsoring Agency: Kazakhskiy gosudarstvennyy universitet imeni S.M. Kirova.

Ed.: V.V. Aleksandriyskiy, Tech. Ed.: Z.P. Ronokina; Editorial Board: L.A. Vulis (Resp. Ed.), V.P. Kashkarov, T.P. Leont'yeva, and B.P. Ustimenko.

PURPOSE: This book should be of interest to scientists and engineers working on problems of applied gas dynamics and may be of use to students.

COVERAGE: This book presents reports and brief summaries of the discussions which took place at the Conference on Applied Gas Dynamics in Alma-Ata in October 1956. The conference was subdivided into three areas of applied gas dynamics: jet flows of fluids and gases, the aerodynamics of heating processes, and the discharge of a fluid. The practical value of the Transactions of the Conference consists in the development of theory, methods of technical calculation and methods for systematic measurement applied to heating, furnace, and other industrial processes for which, in most cases, aerodynamic phenomena are decisive factors.

BUKHMAN, S.V.

Using high-speed cinematography for investigating aerodynamic and combustion processes. Usp.nauch.fot. 6:212 '59. (MIRA 13:6)
(Motion-picture photography, High speed)
(Combustion) (Aerodynamics)

26.5200

S/262/62/000/005/001/013
I007/1207

Authors: Barlybayev, Kh. A.,
Bukhman, S. V.

Title INVESTIGATIONS ON THE CONVECTIVE HEAT TRANSFER AT HIGH THERMAL LOADS

Periodical: *Referativnyy zhurnal, otdel'nyy vypusk.* 42. *Silovye ustanovki,* no. 5, 1962, 14, abstract 42.5.56 (*Tr. Kazakh. un-ta,* no. 2, 1960, 67–71)

Text: In order to study the heat transfer coefficient at thermal loads ranging from 0.07×10^6 to 6.2×10^6 kcal/m^2. hr and Reynolds numbers varying from 16×10^3 to 82×10^3, experiments have been carried out on 2-mm diameter tubes, 280-mm long, traversed by a water stream. These experiments confirmed (with an accuracy of $\pm$ 5%) the validity of Yakovlev's formula:

$$Nu = 0.0271\ Re_{liqu}^{0.8}\ Pr_{liqu}^{0.35}\ \left(\frac{Pr_{liqu}}{Pr_{wall}}\right)^{0.11}$$

There are 2 tables and 2 references.
[Abstractor's note: Complete translation.]

Card 1/1

/B

PONOMAREV, V.D.; SLUTSKIY, I.Z.; NURMAGAMBETOV, Kh.N.; BUKHMAN, S.V.; KOLOMITSKIY, F.M.; SHEYENKO, F.I.; PUTILIN, Yu.M.; Prinimal uchastiye: KONONENKO, G.A., starshiy laborant.

Thermal and electric balance of eight electrolytic cell types. Izv. vys. ucheb. zav.; tsvet. met. 3 no.5:79-88 '60. (MIRA 13:11)

(Electrolysis--Equipment and supplies)

BUKHMAN, S.V.

PHASE I BOOK EXPLOITATION SOV/5290

Soveshchaniye po prikladnoy gazovoy dinamike. Alma-Ata, 1956

Trudy Soveshchaniya po prikladnoy gazovoy dinamike, 6. Alma-Ata, 23-26 oktyabrya 1956 g. (Transactions of the Conference on Applied Gas Dynamics, Held in Alma-Ata, 23-26 October 1956) Alma-Ata, Izd-vo AN Kazakhskoy SSR, 1959. 293 p. Errata slip inserted. 900 copies printed.

Sponsoring Agency: Akademiya nauk Kazakhskoy SSR. Kazakhskiy gosudarstvennyy universitet imeni S.M. Kirova.

Editorial Board: Resp. Ed.: L.A. Vulis; V.P. Kashkarov; T.P. Leont'yeva and B.P. Ustimenko. Ed.: V.V. Aleksandriyskiy. Tech. Ed.: Z.P. Rorokina.

PURPOSE: This book is intended for personnel of scientific research institutes and industrial engineers in the field of applied fluid mechanics, and may be of interest to students of advanced courses in the field.

Transactions of the Conference (Cont.) SOV/5290

COVERAGE: The book consists of the transcriptions of 31 papers read at the conference on gas dynamics which was convened under the initiative of the Kazakhskiy gosudarstvennyy universitet imeni S.M. Kirova (Kazakh State University imeni S.M. Kirov) and the Institut energetiki Akademii nauk Kazakhskoy SSR (Institute of Power Engineering of the Academy of Sciences Kazakhskaya SSR) and held October 23-26, 1956. Three branches of applied gas dynamics were discussed, namely: jet flow of liquids and gases, aerodynamics of furnace processes, and the outflow of liquids. The practical significance of the "Transactions" of the conference consists in the adaptation of theory to methods of technical computation and measuring methods related to industrial furnaces and other industrial processes in which aerodynamic phenomena play a predominant role. Eight papers read at the Conference are not included in this collection for various reasons. The authors of the missing papers are: L.D. L'vov (Thermal and Aerodynamic Characteristics of Pulverized Coal Flame Burners) and A.A. Gol'zevskiy (Outlines and Physical Models of the Jet Motion Mechanics of Fluids); N.I. Akatnov, Ye. P. Bogdanov, B.V. Bukhman, T.K. Mirnenko, A.B. Reznyakov, and O.V. Yakubov. L.G. Loyzyanskiy is mentioned as being in charge of a department of the Kazakh State University, and I.D. Malyukov, Candidate of Physical and Mathematical Sciences, Docent, as a member of the same university. References are found at the end of

Session of October 24, 1956 (Morning)

Card 5/6

S/124/62/000/009/014/026
A001/A101

26.5200 4712

AUTHORS: Barlybayev, Kh. A., Bukhman, S. V.

TITLE: Investigation of convective heat transfer at high thermal loads

PERIODICAL: Referativnyy zhurnal, Mekhanika, no. 9, 1962, 76, abstract 9B520 ("Tr. Kazakhsk. un-ta", 1960, no. 2, 67 - 71)

TEXT: The article presents the results of experiments on heat transfer in a copper cylindrical tube of 4 x 2 mm cross section at thermal loads from 0.07×10^6 to 6.2×10^6 kcal/m^2hr. The temperature of heat carrier (distilled water) in the operational section of the heat exchange tube varied from 11.8 to 50°C; the temperature of the internal surface of the tube varied from 34 to 110°C in various experiments. The tube was heated by electric current. Since the tube resistance was constant over its length, heat emission per unit length was also constant, which was confirmed by a linear temperature distribution along the heat exchanger. In determining the temperature of the internal tube surface, temperature drop in the radial direction was taken into account. The experiments were carried out within the range of Prandtl numbers $7.9 \leq P \leq 3.05$ and Reynolds

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Investigation of convective heat transfer...

numbers $18,400 \leq R \leq 82,000$. The determined values of N numbers differed from the corresponding values obtained by M. A. Mikheyev's formulae (Teploperedacha i teplovoye modelirovaniye (Heat transfer and thermal simulation), AN SSSR, 1959) and V. V. Yakovlev (Atomnaya energiya, 1957, no. 2) by 6 - 11.5% and 1 - 2.5% respectively.

L. V. Kozlov

[Abstracter's note: Complete translation]

S/137/61/000/006/010/092
A006/A101

AUTHOR: Bukhman, S.V.

TITLE: Investigation of heat conditions and the mechanism of carbon particle combustion

PERIODICAL: Referativnyy zhurnal. Metallurgiya, no. 6, 1961, 3, abstract 6B14 (V sb. "3-ye Vses. soveshchaniye po teorii goreniya, v. 2", Moscow, 1960, 95 - 97)

TEXT: The author studied the mechanism of carbon particle combustion with the aid of high-speed microphotography, recording the outlet of volatile substances and the combustion of separate particles of 0.24 - 1.4 mm Lengersk coal in air and commercial oxygen (95% O_2 concentration) and at atmospheric pressure. It was established that under the given conditions the combustion of volatiles is terminated prior to the beginning of coke combustion. The results of measuring the temperature, the combustion rate and the burning time of particles are in a satisfactory agreement with calculations made by assuing diffusion conditions of combustion prior to CO. This is in agreement with results of calculations made

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on the basis of the thermal theory of combustion, if an assumption is made that the process occurs practically on the surface of particles.

B. Mastryukov

[Abstracter's note: Complete translation]

Card 2/2

BUKHMAN, S.V.

Calculation and measurement of the combustion time of pulverized coal. Trudy Inst. energ. AN Kazakh. SSR 2:244-251 '60.
(MIRA 15:1)

(Coal, Pulverized) (Combustion)

BARLYBAYEV, Kh.A.; BUKHMAN, S.V.; ZHURGEMBAYEV, K.A.; USTIMENKO, B.P.; ATENKOV, S., tekhn. red.

[Some aspects of convective heat transfer in an incompressible fluid (internal problem); Conference on Heat and Mass Transfer, Minsk, January 23-27, 1961] Nekotorye voprosy konvektivnogo teploobmena v neszhimaemoi zhidkosti (vnutrenniaia zadacha); soveshchanie po teplo-i massoobmenu, g. Minsk, 23-27 ianvaria 1961 g. Minsk, 1961. 17 p. (MIRA 15:2)
(Heat—Convection) (Hydrodynamics)

38975
S/137/62/000/006/007/163
A006/A101

26.5100

AUTHORS: Barlybayev, Kh. A., Bukhman, S. V.

TITLE: Investigating the heat exchange in a ring-shaped channel

PERIODICAL: Referativnyy zhurnal, Metallurgiya, no. 6, 1962, 1 - 2, abstract 6B4 ("Izv. AN KazSSR, Ser. energ.", 1961, no. 1(19) 21 - 29, Kaz. summary)

TEXT: The authors analyze the effect of the channel geometry (the correlation of radii of the external and internal pipes forming the channel). According to the calculation performed, the channel geometry exerts a substantial effect upon the temperature field, heat exchange and the very flow. The asymmetry of the temperature profile, in particular, the location of the temperature maximum, depends on the ratio of the radii. The same dependence is characteristic of the number Nu in stabilized heat exchange, which, in general, is determined by two parameters, i.e. the ratio of the radii and the ratio of heat flows through the channel walls. An evaluation of heat emission, separately performed for the internal and external wall of the ring-shaped channel, shows that in the former

Investigating the...

S/137/62/000/006/007/163
A006/A101

the heat emission is more intensified, in particular, at a high ratio of the external and internal pipe radii of the ring-shaped channel. The calculations performed (for the case of constant heat flows through the channel walls) show that the location of the temperature maximum depends only slightly on the rate profile. The effect of the latter upon heat emission is evidently of the same nature as for heat exchange in two extremal cases, namely a round pipe and a flat channel.

V. Oparysheva

[Abstracter's note: Complete translation]

Card 2/2

BUKHMAN, S. V.

Combustion mechanism of a pulverized coal torch. Izv. AN Kazakh. SSR. Ser. energ. no.2:71-74 '62.
(MIRA 16:1)

(Coal, Pulverized) (Combustion)

[redacted] S.W.

Combustion of coal dust. Probl. teplosnerg. i prikl. teplofiz. no.2:246-264 '64. (MIRA 18:8)

BUKHMAN, S.L.; NUREKENOV, Ye.

Heat and mass transfer from a sphere allowing for the dependence of the transfer coefficients on the temperature and pressure. Probl. teploenerg. i prikl. teplofiz. no.1:264-269 '64.

(MIRA 18:8)

L 12020-66 EPA/EWT(m)/EWP(j)/T/EWA(c)/ETC(m) RPL DS/WW/JW/JWD/WE/RM

ACC NR: AP6001183 UR/0031/65/000/009/0035/0041

AUTHOR: Bukhman, S.V. (Candidate of technical sciences); Nurekenov, Ye

ORG: None

TITLE: The physico-chemical mechanism of the carbon combustion process

SOURCE: AN KazSSR. Vestnik, no. 9, 1965, 35-41

TOPIC TAGS: combustion mechanism, carbon, chemical reaction, reaction rate, mass transfer

ABSTRACT: As is known, in the combustion of carbon, the following overall chemical reactions can proceed on its surface:

$$C + O_2 = CO_2, \quad (1)$$

$$2C + O_2 = 2CO, \quad (2)$$

$$C + CO_2 = 2CO. \quad (3)$$

The present article represents an attempt to derive formulas for the relationship between these overall heterogeneous reactions. A mathematical treatment results in the following calculating formula:

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$$\frac{L_2}{L_3} = 2{,}8\frac{e^{\nu_1 R\left(1-\frac{\rho_0}{R}\right)}}{2+\frac{C_3}{C}\Big|_\infty - \frac{\rho_0}{R}}\frac{\alpha}{k_3}. \qquad (5')$$

Here, L_2 is the amount of carbon reacted to CO on a unit surface of carbon in unit time; L_3 is the amount of carbon consumed in the reduction of CO_2 on the unit surface in unit time; alpha is the mass transfer coefficient; $\nu_1 = (k_4/2D)^{\frac{1}{2}}$, where k_4 is the rate constant of the reaction $CO + O_2$ and D is the diffusion coefficient; ρ_0/R is the ratio of concentration of CO_2 or temperature to the radius of the particle; $\frac{C_3}{C}\Big|_\infty$ is the ratio of the concentrations of CO_2 and O_2 at infinity; and, k_3 is the reaction rate of the reaction $C + CO_2 = 2CO$. A sample calculation is given for the relationship of the overall reactions in the combustion of coal dust. It is assumed that the largest particle has a diameter of 200 microns and that the temperature of the particles is equal to 2000°K. Under these conditions, it is demonstrated that the combustion process goes all the way to CO. Orig. art. has: 7 formulas and 4 figures.

SUB CODE: 07/ SUBM DATE: 00/ ORIG REF: 006/ OTH REF: 001

Card 2/2

BUKHMAN, S. V., ZHURGENBAYEV, K. A., USTIMENKO, B. P., and BARLYBAYEV, K. A.

"Some Problems of Heat Transfer by Convection in an Imcompressible Liquid (internal problem)."

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

BUKHMAN, Vil'yam Aronovich; PUGACH, Konstantin Abramovich; PRUTYAN, L.N., red.; PANICHKINA, E.A., red. izd-va; KLAPTSOVA, T.F., tekhn. red.

[Mechanization of certain fitting and assembly operations in ship repairs] Mekhanizatsiia nekotorykh slesarno-montazhnykh rabot v sudoremonte. Moskva, Izd-vo "Morskoi transport," 1962 128 p. (MIRA 15:7)

(Ships--Maintenance and repair)
(Shipfitting)

BUKHMAN, V.A.

Effect of land reclamation on the fertility and agrochemical properties of peat-bog soils. Trudy Kar. fil. AN SSSR. no.9: 27-32 '57. (MIRA 12:1)
(Peat soils) (Drainage) (Fertilizers and manures)

BUKHMAN, V.A.

Conversion of nitrogen forms in Karelian peat bog soils. Izv. Kar. i Kol'.fil.AN SSSR no.4:123-130 '58. (MIRA 12:5)

1. Institut lesa Karel'skogo filiala AN SSSR.
(Karelia--Peat soils)
(Nitrification)

BUKHMAN, V.A., KULIKOVA, V.K.

Method for determining ammonia nitrogen in peat bog soils. Izv. Kar.i Kol.fil.AN SSSR no.5:154-155 '58. (MIRA 12:9)

1. Institut lesa Karel'skogo filiala AN SSSR.
(Peat soils) (Nitrogen--Analysis)

BUKHMAN, V.A.

Chemical properties of Karelian peat soils. Trudy Kar. fil. AN SSSR no.15:147-159 '59. (MIRA 12:10)
(Karelia--Peat soils)

BUKHMAN, V.A.

Agrochemical properties of principal peat soil types of Karelia.
Pochvovedenie no.11:99-105 N '60. (MIRA 13:11)

1. Institut lesa Karel'skogo filiala Akademii nauk SSSR.
(Karelia--Peat soils)

BUKHMAN, V.A.; POGODINA, T.N.

Effect of soil temperature and moisture on the dynamics of different nitrogen forms. Trudy Kar. fil. AN SSSR no.28:95-107 '60. (MIRA 14:9)

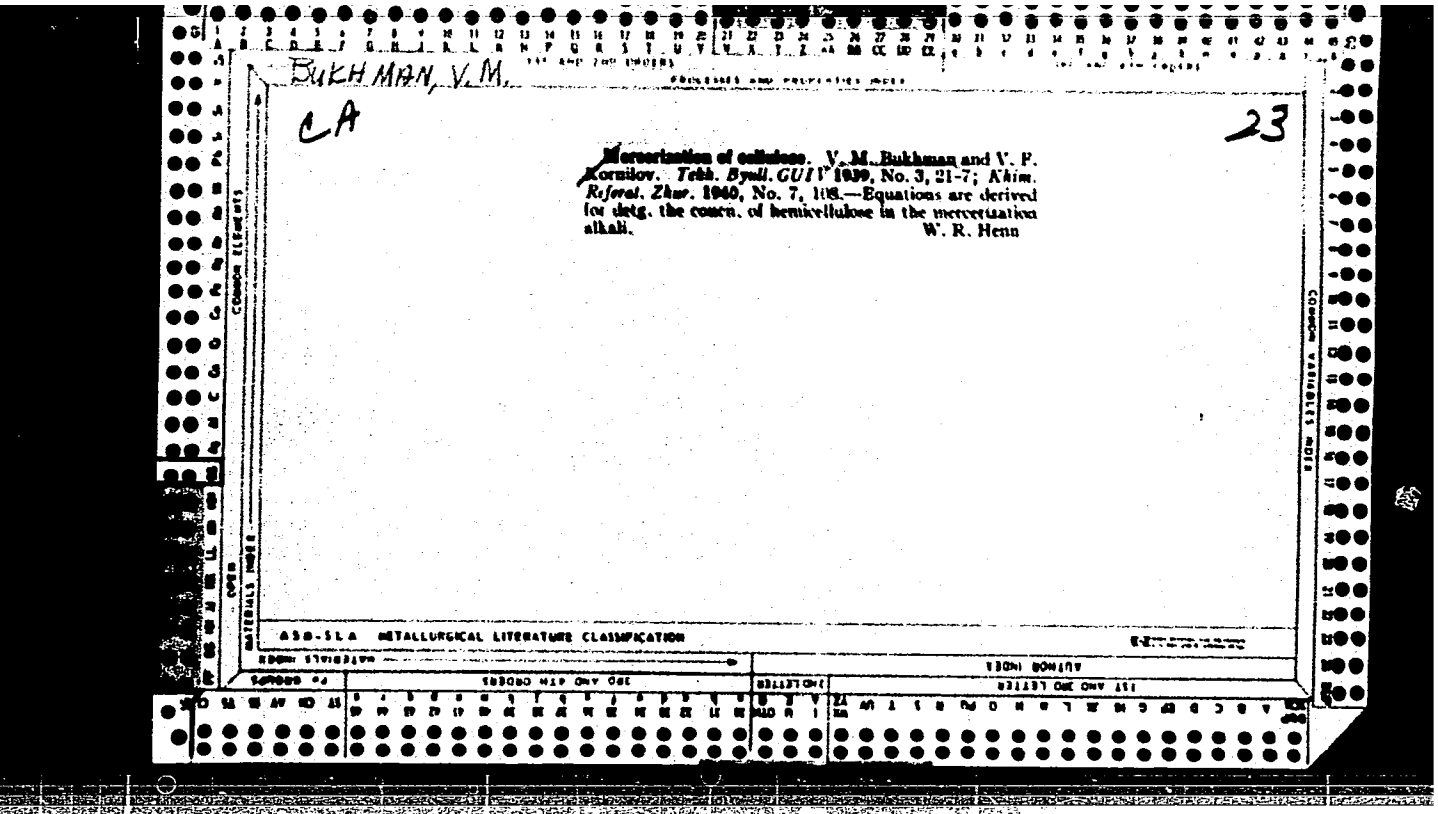
(Soils--Nitrogen content) (Soil temperature) (Soil moisture)

BUKHMAN, Vera Arkad'yevna; ROZIN, Vitaliy Aleksandrovich; TRUBIN, M.I., red.; SHEVCHENKO, L.V., tekhn. red.

[Peat soils in Karelia, their drainage and cultivation] Torfianye pochvy Karelii, ikh osushenie i osvoenie. Petrozavodsk, Gos. izd-vo Karel'skoi ASSR, 1961. 84 p. (MIRA 15:2)
(Karelia—Peat soils)

BUKHMAN, V.A.

Characteristics of the composition of organic matter in the peat soils of Karelia. Uch. zap. Petrozav. gos. un. 12 no.2:132-142 '64.
(MIRA 18:7)



BUKHMAN, V.M.

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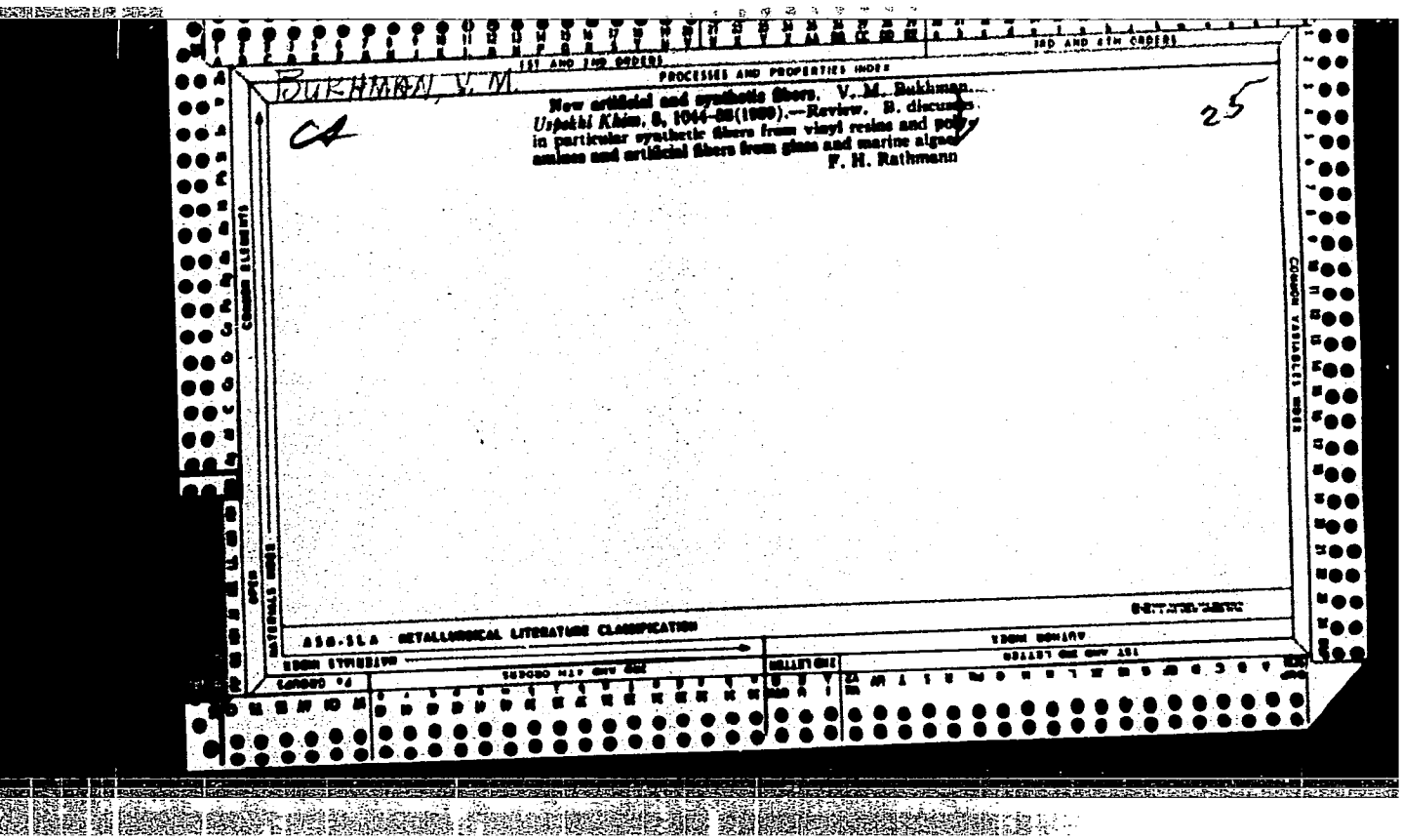
Mercerization of cellulose. V. M. Bukhman and V. P. Kornilov. *Tekh. Byull. GUIP* 1939, No. 3, 21-7; *Khim. Referat. Zhur.* 1940, No. 7, 108.—Equations are derived for detg. the concn. of hemicellulose in the mercerization alkali.
W. R. Henn



KITAYGOV, N. V.; [illegible], V. A.; [illegible], V. M.

Mytishchi Scientific-Research Institute for Synthetic Fibers, (-1939-).

"X-ray Examination of the Orientation of Synthetic Fiber". Part II. "The Stability of oriented HydrocelluloseFibers".

Zhur. Fiz. Khim., Vol. 14, No. 2, 1940.

BUKHMAN, V Ye

PHASE I BOOK EXPLOITATION SOV/4371

Volynskiy, Boris Abramovich, and Vadim Yevgen'yevich Bukhman

Modeli dlya resheniya krayevykh zadach (Analog Computers for the Solution of Boundary Value Problems) Moscow, Fizmatgiz, 1960. 451 p. (Series: Fiziko-matematicheskaya biblioteka inzhenera) 10,000 copies printed.

Ed. (Title page): L.A. Lyusternik; Ed. (Inside book): A.F. Lapko; Tech. Ed.: N.A. Tumarkina.

PURPOSE: This book is intended for scientific and technical personnel working in computer design. It may also be used as a textbook by students specializing in computing methods.

COVERAGE: The book deals with theoretical and practical questions related to the use of analog computers for the approximate solution of problems that can be described by partial differential equations (boundary value problems). The theory of analog computers is considered on the basis of mathematical analogy to the real objects to be investigated; thus it is possible to simulate processes which are more complex than those which can be simulated on the basis of a purely physical analogy. An application of an integral form of solution is published for the first

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time, with methods of utilization and the construction of a corresponding instrument for the solution of some boundary value problems. Specialized circuits, such as analogs for the solution of Neumann's spatial problem and biharmonic equations, are considered. Several analoging possibilities which are new in principle are discussed. Ch. III was written by V.Ye. Bukhman, and Ch. VIII by B.A. Volynskiy. The remaining chapters were written by both authors jointly. The authors thank L.A. Lyusternik, Corresponding Member, Academy of Sciences USSR, and Engineers Ye. K. Bukhman and A.K. Kuznetsova for their assistance. There are 11 references, all Soviet.

TABLE OF CONTENTS:

ROVENSKIY, Yu.A.; BUKHMAN, V.M.

Effect of the ascitic fluid on the adhesion of ascitic tumor cells and L-fibroblasts to glass. Biul. eksp. biol. i med. 60 no.9:95-98 S '65. (MIRA 18:10)

1. Laboratoriya mekhanizmov kantserogeneza (zav. - doktor med. nauk prof. Yu.M. Vasil'yev) otdela po izucheniyu kantserogennykh agentov (zav. - deystvitel'nyy chlen AMN SSSR prof. L.M. Shabad) Instituta eksperimental'noy i klinicheskoy onkologii (dir. - deystvitel'nyy chlen AMN SSSR prof. N.N. Blokhin) AMN SSSR, Moskva.

L 25760-65 EWT(d) IJP(c) MLK

ACCESSION NR: AT5002495 S/0000/64/000/000/0069/0073

10
7
B+1

AUTHOR: Bukhman, V. Ye.

TITLE: A way of specifying variable boundary conditions for the solution of non-stationary boundary problems 16

SOURCE: Analogovyye metody i sredstva resheniya krayevykh zadach (Analog methods and means of solving boundary value problems); trudy Vsesoyuznogo soveshchaniya, Moskva, 1962, g. Kiev, Naukova dumka, 1964, 69-73

TOPIC TAGS: boundary value problem, electrointegrator, electrosimulation, switching element

ABSTRACT: The paper considers a method of specifying inputs to an electrointegrator for the purpose of solving non-stationary boundary value problems. The method allows specification of boundary conditions as a function of time, transforming ciphered data, coded in binary or BCD, into electrical signals on a continuous basis. The basis of the method is a transistor switching element, shown in Figure 1 of the Enclosure, where T is a transistor, L a lamp, R a collector loading resistor, and r a shunt resistor. The author shows variations on this circuit which can be used as input sources for an electrointegrator. These devices provide a signal accuracy of 0.1 - 0.5%, operate at a speed of 10,000

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L 25760-65
ACCESSION NR: AT5002495

transitions per second, and are simple and reliable in operation. Orig. art. has: 7 figures and 1 formula.

ASSOCIATION: None

SUBMITTED: 05Sep64 ENCL: 01 SUB CODE: MA, DP

NO REF SOV: 000 OTHER: 000

Card 2/3

BUKHMAN, Ya.

Every worker should get a plan of technological development.
NTO 4 no.11:24-25 N '62. (MIRA 16:1)

1. Sekretar' soveta novatorov Chelyabinskogo traktornogo zavoda.
(Chelyabinsk--Tractor industry)

BUKHMAN, Ya.

Carrying out the plan of technical development. Mashinostroitel' no.3:2-3 Mr '63. (MIRA 16:4)
(Chelyabinsk--Tractor industry)

AUTHOR: Bukhman, Ya.R., Senior Engineer SOV/117-58-12-2/36

TITLE: Duty in Honor of the XXI KPSS Congress (Vakhta v chest' XXI s"yezda KPSS)

PERIODICAL: Mashinostroitel', Nr 12, 1958, p 2 (USSR)

ABSTRACT: Workers from the Chelyabinsk Tractor Plant submitted various suggestions for improvement of quality, reduced production costs, economical use of materials and elimination of spoilage, in honor of the XXI Party Congress. It is planned to exceed the yearly production plan by an additional output of 60 "S-100" tractors and 165 engines.

ASSOCIATION: Chelyabinskiy traktornyy zavod (Chelyabinsk Tractor Plant)

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BUKHMAN, Ya.R., inzh.

Initiative of great national importance. Mashinostroitel' no.3:36-38 Mr '60. (MIRA 13:6)
(Chelyabinsk--Traktor industry--Technological innovations)
(Chelyabinsk Province--Steel industry--Technological innovations)

BUKHMAN, Ya.R.

Machines remove dust from the air. Mashinostroitel' no.10:36 '60.
(MIRA 13:10)
(Dust collectors)

BUKHMAN, Ya.R.

Hero of socialist labor Mariia Fedorovna Moroz. Mashinostroitel' no. 4:7-8 Ap '61. (MIRA 14:4)
(Chelyabinsk--Tractor industry)

BUKHMAN, Ya.R., inzhener po razvitiyu novatorstva.

Friendly cooperation. Metallurg 6 no.4:34-35 Ap '61. (MIRA 14:3)

1. Chelyabinskiy traktornyy zavod.
(Rolling (Metalwork)) (Tractor industry)

BUKHMAN, Ya.R.

Innovator teams introduce automation. Mashinostroitel' no.8:27-28 Ag '61. (MIRA 14:7)
(Chelyabinsk—Tractor industry) (Automation)

BUKHMAN, Ya.R.

Utilization of alloyed steel and nonferrous metal waste at the Chelyabinsk Tractor Works. Mashinostroitel' no.12:35-36 D '61. (MIRA 14:12)

(Chelyabinsk--Scrap metals)

BUKHMAN, Ya.R.

Integrated brigades save metal. Mashinostroitel' no.1:9-10 Ja '62. (MIRA 15:1)

(Chelyabinsk--Tractor industry)

BUKHMAN, Ya.R.

Drum-type nap. Mashinostroitel' no.9:29 S '62. (MIRA 15:9)
(Taps and dies)

BUKHMAN, Ya. R.

Working more today means having more tomorrow. Mashinostroitel' no.12:4-5 D '62. (MIRA 16:1)

(Chelyabinsk—Tractor industry)

BUKHMAN, Ya.R.

Maximum utilization of production potentials. Mashinostroitel' no.9:3-4 S '63. (MIRA 16:10)

(Chelyabinsk--Tractor industry)

BUKHMAN, Ya.R.

Electric slag-welding unit for reconditioning dies.
Mashinostroitel' no. 5:14 My '64. (MIRA 17:7)

BUKHMAN, Ya.R.

Personal plans of technical development should be available to all machinery industry workers. Mashinostroitel' no.6:4-5 Je '64. (MIRA 17:8)

BUKHMAN, Ya.R.

Shock worker at the Chelyabinsk Tractor Plant. Mashinostroitel' no.12:35 D '64. (MIRA 18:2)

BUKHMAN, Yakov Zakharovich; GIDASPOV, Yuriy Fedorovich; SAZHIN, D.I., redaktor; LUCHKO, Yu.V., redaktor izdatel'stva; KOVALENKO, N.I., tekhnicheskiy redaktor

[Ventilation, lighting, and safety engineering in ore mines; a manual for schools and courses for specialists] Provetrivanie, osveshchenie i gornospasatel'noe delo na metallicheskikh rudnikakh; uchebnoe posobie dlia shkol i kursov masterov. Sverdlovsk, Gos. nauchno-tekhn. izd-vo lit-ry po chernoi i tsvetnoi metallurgii, Sverdlovskoe otd-nie, 1956. 260 p. (MLRA 9:12)

(Mine ventilation) (Mine lighting)
(Mining engineering--Safety measures)

BUKHMAN, Yakov Zakharovich,; BAKIROV, U. Kh.,red.; TSYMBALIST, N.N., red. izd-va,; ZEF, Ye.M., tekhn. red.

[Mine ventilation; textbook for the practical training of workers] Rudnichnaia ventiliatsiia; uchebnik dlia proizvodstvenno-tekhnicheskogo obucheniia rabochikh. Sverdlovsk, Gos. nauchno-tekhn. izd-vo lit-ry po chernoi i tsvetnoi metallurgii, Sverdlovskoe otd-nie, 1958. 132 p. (MIRA 11:12)

(Mine ventilation)

BUKHMAN, Yakov Zakharovich

OGIYEVSKIY, Vladimir Mikhaylovich, prof.,doktor tekhn.nauk [deceased]; BUKHMAN, Yakov Zakharovich; PANCHENKO, Vladimir Ivanovich, red.; LUCHKO, Yu.V., red. izd-va; ZEF, Ye.M., tekhn.red.

[Mine ventilation and lighting and the control of mine fires] Rudnichnaia ventiliatsiia, osveshchenie i bor'ba s rudnichnymi pozharami. Sverdlovsk, Gos. nauchno-tekhn.izd-vo lit-ry po chernoi i tsvetnoi metallurgii, Sverdlovskoe otd-nie, 1958. 320 p. (MIRA 11:12)
(Mine ventilation) (Mine fires) (Mine lighting)

BUKHMAN, Ya.Z.

PHASE I BOOK EXPLOITATION SOV/4655

Berkovich, Malka Tuv'yevna, and Yakov Zakharovich Bukhman

Promyshlennaya pyl' (Industrial Dust) Sverdlovsk, Metallurgizdat, Sverdlovskoye otd-niye, 1960. 240 p. 3,450 copies printed.

Ed. of Publishing House: N. N. Tsymbalist; Tech. Ed.: Ye. D. Turkina.

PURPOSE: This book is intended for scientists, mining engineers, hygienists, and specialists in sanitation and industrial dust control.

COVERAGE: The book reviews the physicochemical properties of industrial dust with reference to the conditions of its formation and the effect of its surrounding medium. Principal emphasis is placed upon problems relating to the wetting and moistening of dust and to the effect of a gaseous medium upon its properties. Modern methods of controlling dust, the agent responsible for many occupational diseases in mines and in the dressing and sintering shops of ferrous and nonferrous metallurgical plants, are described. The book constitutes a generalization of studies carried out in the Fiziko-khimicheskaya laboratoriya Sverdlovskogo instituta okhrany truda VTsSPS (Physicochemical

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Laboratory of the Sverdlovsk Institute for Labor Protection) by G. S. Luzina, Candidate of Technical Sciences, staff scientists L. P. Grigorova and N. I. Tikunova, and laboratory assistants T. T. Smeykal, A. A. Tokareva, L. A. Temnikova, I. D. Titova, and R. S. Koz'minykh, supervised by M. T. Berkovich (joint author). The authors thank A. A. Malykh, G. P. Korshunov, A. B. Taubman, Doctor of Chemical Sciences, Professor at the IFKh AN SSSR (Institute of Physical Chemistry, AS USSR), A. M. Gervas'yev, Candidate of Technical Sciences, V. V. D'yakov, Mining Engineer (SIOT), A. S. Shur, Candidate of Chemical Sciences at the UFAN (Ural Branch of the Academy of Sciences of the USSR), P. L. Popov, Director of the Uralgiproshakht Institut, F. N. Ryzhkov, Candidate of Technical Sciences (Unipromed'), and U. Kh. Bakirov (UFAN) for assistance. There are 169 references; 161 Soviet, 5 English, and 3 German.

TABLE OF CONTENTS:

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BUKHMAN, Ya.Z.; USHAKOV, P.G.

Prevent occupational poisoning. Bezop.truda v prom. 4 no.10:15-16 O '60. (MIRA 13:11)
(Gases, Asphyxiating and poisonous--Safety measures)

BUKHMAN, Yakov Zakharovich; BAKIROV, Urkhan Khakimzhanovich; LUGOVSKIY, S.I., doktor tekhn. nauk, prof., retsenzent; KLEBANOV, F.S., otv. red.; GRISHAYENKO, M.I., red. izd-va; GALANOVA, V.V., tekhn. red.

[Local ventilation in metal mines] Mestnoe provetrivanie na metallicheskikh rudnikakh. Moskva, Gos. nauchno-tekhn. izd-vo lit-ry po gornomu delu, 1961. 198 p. (MIRA 15:3)
(Mine ventilation)

BUKHMAN, Ya.Z.

Oxygen depletion of the atmosphere in stopes of pyritic copper mines. Gor. zhur. no. 12:55-57 D '61. (MIRA 15:2)

1. Gornospasatel'nyye chasti Sverdlovskogo sovnarkhoza.
(Mine ventilation)
(Chalcopyrite)