LAZOVATSKIY, G.A., inzh.

Ways of expanding the production of cheap crushed stone. Put' i put.khoz. 5 no.10:18-19 O '61. (MIRA 14:10)
(Quarries and quarrying)

BATALOV, V., putevoy obkhodchik (st. Matrosovka, Odesskoy dorogi);
ORLOV, G. T., brigadir puti (st. Millerovo, Yugo-Vostochnoy dorogi);
LAZOVATSKIY, G. A., inzh.; VLASENKO, F. F.; BYCHKOV, L. Ya.,
mekhanik (st. Nikel'-Tau, Kazakhskoy dorogi)

Letters to the editor. Put' i put. khoz. 6 no.9:47 '62.
(MIRA 15:10)

1. Zaveduyushchiy masterskimi, st. Nikel'-Tau, Kazakhskoy dorogi (for Vlasenko).

(Railroads)

LAZOVIC, Dusan, profesor

Another method of education at the Medical Military Academy. Vojnosanit. pregl. 20 no.3:143-145 Mr '63.

(EDUCATION, MEDICAL) (MILITARY MEDICINE)

S

LAZOVIC, Dusan, profesor

On some aspects of the educational nature of military medical schools. Vojnosanit. pregl. 20 no.3:155-160 Mr '63.

(EDUCATION, MEDICAL) (MILITARY MEDICINE)

5

LAZOVIC, Dusan, prof.

Educational and methodological training of the teaching personnel in the Military Medical Academy. Vojnosanit. pregl. 20 no.9:573-576 S '63.

1. Vojnomedicinska akademija u Beogradu.

S

LAZOVIC, J.P.; SIMOVLJEVIC, J.L.

Observations of the total solar eclipse, made at Nis February 15, 1961. Glas prir mat SANU no.254:7-13 '63.

LAZOVIC MILORAD

YUGOSLAVIA/Chemical Technology. Chemical Products and Their Application. Elements. Oxides. Mineral Acids. Bases. Salts. I-2

Abs Jour : Ref Zhur - Khimiya, No 2, 1958, 5212.

Author : Lazovic Milorad

Inst : Not Given.

Title : Filling of Pyrite Furnaces.

Orig Pub : Kemija u industriji, 1956, 5, No 5, 88-90

Abstract : Calculations and corresponding equations are proposed for determining the filling of the furnace with pyrite at any point of time.

Card : 1/1

JOSIPOVIC, V.; LAZOVIC, V.

Partial embolic infarcts of myocardium during subacute bacterial endocarditis. Srpski arh. celok. lek. 83 no.4: 502-509 Apr 55.

1. IV Interna klinika Medicinskog fakulteta u Beogradu. Upravnik: Cedomir Plavisic.

(ENDOCARDITIS, SUBACUTE BACTERIAL, compl.
partial embolic myocardial infarct. (Ser))
(MYOCARDIAL INFARCT, compl.
subacute bact. endocarditis (Ser))

LAZOVIC, VERA

BOZIKOVIC, Ljubica; LAZOVIC, Vera; JOCIC, Andjelija; PETKOVIC, Darinka

2 Cases of mycotic aneurysms during subacute bacterial endocarditis. Srpski arh. celok. lek. 84 no.4:536-543 Apr 56.

1. IV Interna klinika Medicinskog fakulteta u Beogradu. Upravnik: Cedomir Plavsic. Patoloski Institut Medicinskog fakulteta u Beogradu. Upravnik: Ksenofon, Sahovic. Sudsko-medicinski institut Medicinskog fakulteta u Beogradu. Upravnik: Julijana Bogicevic.

(ENDOCARDITIS, SUBACUTE BACTERIAL, compl.
aneurysm of aorta & splenic artery, case reports (Ser))
(ANEURYSM,
splenic artery, in bact. subacute endocarditis, with aorta aneurysm (Ser))
(SPLENIC ARTERY, aneurysm,
with aortic aneurysm in bact. subacute endocarditis (Ser))
(AORTIC ANEURYSM, compl.
aneurysm of splenic artery in bact. subacute endocarditis (Ser))

KOSANOVIC, Bogdan, prof.dr.; LAZOVIC, Viktor, asist. dr.

The knowledge and treatment of pancreatic pseudocysts. Srpski arh. celok. lek. 82 no.6:819-826 June 54.

1. Hirurako odeljenje Gradske bolnice u Beogradu, sef prof. dr. Bogdan Kosanovic, (Rad je urednistvo primilo 15.I.1954 god.)
(PANCREAS, cysts
pseudocyst, surg.)
(CYSTS
pancreas, pseudocyst, surg.)

KOSANOVIC, Bogdan, Prof. dr; LAZOVIC, Viktor; dr.

Struma maligna. Med.glasn.9 no.6:227-230 June '55.

1. Hirursko odeljenje Gradske bolnice u Geodradu (upravnik prof. dr B. Kosanovic)
(THYROID GLAND, neoplasms)

KOSANOVIC, Bogdan; Djordjevic, Zivota; LAZOVIC, Viktor

Indications for surgical treatment of thyroid gland diseases.
Med. glasn. 10 no.4-5:166-169 Apr-May 56.

1. Hirursko odelenje Gradske bolnice u Beogradu (Upravnik; B. Kosanovic).
(GOITER, surg.
indic. & statist. (Ser))
(HYPERTHYROIDISM, surg.
same)

LAZOVIC, Viktor; NIKOLIC, Miroslav

Lingual carcinoma in a young adult with metastases to tuberculous cervical lymph nodes. Srpski arh. celok. lek. 84 no.5:677-682 May 56.

1. Hirursko odeljenjje Gradske bolnice u Beogradu. Sef: prof. dr. Bogdan Kosanovic. Odeljenje za uvo, nos i grlo Gradske bolnice u Beogradu. Sef: prim. dr. Bozidar Sekulic.

(TONGUE, neoplasms,
metastases to tuberc. cervical lymph nodes (Ser))
(TUBERCULOSIS, LYMPH NODE, complications,
cervical metastases from tongue in tuberc., lymphadenitis (Ser))

ZEC, R.; LAZOVIC, V.; SIMIC, M.

Our experience with liver cirrhosis. Med.arh., Sarajevo 14 no.6:103-116 N-D '60.

1. II Interna klinika Medicinskog fakulteta u Sarajevu (Sef: prof. d-r Miron Simic)
(LIVER CIRRHOSIS case reports)

JEVTIC, Z., doc. dr.; BUCIC, M., prof. dr.; ZEC, R., dr.; LAZOVIC, V., dr.

6 fatal cases in atabrine therapy of taeniasis. Med. glas. 16 no.6/6a:285-287 Je '62.

1. Institut za Sudsku medicinu u Sarajevu (Upravnik: prof. dr. M. Bucic).

(QUINACRINE) (TAPEWORM INFECTION)

S

SIMIC, B. S.; STOSIC, S.; RAKOVIC, V.; LAZOVIC, Z.; MARKOVIC, R.; NIKOLIC, D.; LALOVIC, O.; DOKMANOVIC, M.

Nutrition and nutritional conditions of female students in the home "Vera Blagojevic". Hemoglobin, total serum proteins and hematocrit as indices of nutritional conditions. Glas. hig. inst. 9 no.3/4:51-57 Jl-D '60.

(NUTRITION SURVEYS) (HEMOGLOBIN) (BLOOD PROTEINS) (BLOOD CELLS) (STUDENTS)

SIMIC, B. S.; MARKOVIC, R.; STOSIC, S.; NIKOLIC, D.; LAZOVIC, Z.; RAKOVIC, V.; LALOVIC, O.; DOKMANOVIC, M.

Nutrition and nutritional status of students. Some body characteristics resulting from different forms of nutrition. Higijena 13 no.2:113-122 '61.

(NUTRITIONAL SURVEYS) (BODY WEIGHT)
(BODY HEIGHT) (STUDENTS)

LAZOVIC-TEPAVAC, O.

Pathogenesis of the dermoepidermitis. Bul sc Youg 7 no.1/2:9 F-Ap '62.

1. Dermatovenereloska klinika Medicinskog fakulteta, Sarajevo.

*

LAZOVSKAYA, A. [Lazouskaia, A.]

Teachers never grow old. Rab.i sial. 36 no.6:21 Je '60.
(MIRA 13:7)

(White Russia--Teachers)

GORODISSKAYA, G.Ya., prof., doktor med. nauk, otv. red.; BLOKHINA, I.N., red.; GUSEVA, V.A., red.; DIKOVSKIY, F.F., red.; ZIMINA, V.S., red.; LAZOVSKAYA, A.L., red.; PEROVA, R.S., red.

[Biochemistry of microbes] Biokhimiia mikrobov; sbornik trudov. Gor'kii, 1964. 427 p. (MIRA 17:12)

1. Gorki. Gor'kovskiy nauchno-issledovatel'skiy institut epidemiologii i mikrobiologii.

LAZOVSKAYA, A.L.

Change in the amoino acid composition of a synthetic medium in the growth of Mycobacterium tuberculosis. Zhur.mikrobiol.epid.i immun. 33 no.5:67-68 My '62. (MIRA 15:8)

1. Iz Gor'kovskogo instituta epidemiologii i mikrobiologii.
(MYCOBACTERIUM TUBERCULOSIS) (BACTERIOLOGY--CULTURES AND CULTURE MEDIA)

GORELIK, A.M.; RYBOLOVLEV, R.S.; TANK, L.I.; MOREVA, Ye.V.; LAZOVSKAYA, A.V.

Pharmacology and Toxicology Section of the Leningrad I.M. Sechenov Society of Physiologists, Biochemists, and Pharmacologists. Farm.i toks. 16 no.1: 60-62 Ja-F '53. (MLRA 6:6)

1. VMMA (for Gorelik). 2. Pervyy Leningradskiy meditsinskiy institut (for Gorelik, Rybolovlev). 3. IEM (for Tank, Moreva and Lazovskaya).
(Pharmacology--Societies) (Physiology--Societies) (Biochemistry--Societies)

LAZOVSKAYA, A. V.

"Synergism and Antagonism in the Pharmacological Effects of Potassium Ions and of Tetraethylammonium," Farm. i Tcks. Vol. 16, No. 1, p. 61. 1953

Inst. Exptl. Med., Acad. Med. Sci. USSR.

The exptl. data obtained confirm published material to the effect that there may be antagonism or synergism between K ions and tetraethylammonium (TEA). Antagonism was established in expts on the isolated heart of the frog (O. Levi) and synergism in expts on the isolated straight abdominal muscle of the frog by TEA and guanidine were compared. An outburst of hyperkinesis induced by TEA under the influence of dinitrophenol was detected.

MANOYLOV, S.Ye.; LAZOVSKAYA, A.V.; ORLOV, B.A.

Effect of X-rays emitted from different anodes on the work of an isolated frog heart. Dokl. AN SSSR 110 no.2: 305-307 S '56. (MLRA 9:12)

1. TSentral'nyy nauchno-issledovatel'skiy rentgeno-radiologicheskiy institut.
(X rays--Physiological effect)

LAZOVSKAYA, A.V.

Sorption capacity of nerve tissues in X-irradiated animals.
Vop.radiobiol. 2:102-109 '57. (MIRA 12:6)

1. Sotrudnik TSentral'nogo nauchno-issledovatel'skogo rentgeno-radiologicheskogo instituta Ministerstva zdravookhraneniya SSSR.
(RADIATION SICKNESS) (NERVES) (SORPTION)

LAZOVSKAYA, A.V.

Effect of S rays on the reactivity of animals during strophanthin administration. Med.rad. 5 no.3:71-72 '60. (MIRA 13:12)
(X RAYS—PHYSIOLOGICAL EFFECT) (STROPHANTHIN)

LAZOVSKAYA, A.V.

69

PHASE I BOOK EXPLOITATION SOV/5435

Kiselev, P. N., Professor, G. A. Gusterin, and A. I. Strashinin, Eds.

Voprosy radiobiologii. t. III: Sbornik trudov, posvyashchennyy 60-letiyu so dnya rozhdeniya Professora M. N. Pobedinskogo (Problems in Radiation Biology. v. 3: A Collection of Works Dedicated to the Sixtieth Birthday of Professor M[ikhail] N[ikolayevich] Pobedinskiy [Doctor of Medicine]) Leningrad. Tsentr. n-issl. in-t med. radiologii M-va zdravookhraneniya SSSR, 1960. 422 p. 1,500 copies printed.

Tech. Ed.: P. S. Pelesbuk.

PURPOSE: This collection of articles is intended for radiobiologists.

COVERAGE: The book contains 49 articles dealing with pathogenesis, prophylaxis, and therapy of radiation diseases. Individual articles describe investigations of the biological effects of radiation carried out by workers of the Central Scientific Research Institute for Medical Radiology of the Ministry of Public Health, USSR. [Tsentral'nyy nauchno-issledovatel'skiy institut meditsinskoy radiologii Ministerstva zdravookhraneniya SSSR] during 1958-59. The following

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#69

Problems in Radiation Biology (Cont.) SOV/5435

topics are covered: various aspects of primary effects of radiation; the course of some metabolic processes in animals subjected to ionizing radiation; reactions in irradiated organisms; morphologic changes in radiation disease; and reparation and regeneration of tissues injured by irradiation. Some articles give attention to the effectiveness of experimental medical treatments. No personalities are mentioned. References accompany almost all of the articles.

TABLE OF CONTENTS:

Card 2/10

Problems in Radiation Biology (Cont.) SOV/5435

LAZOVSKIY, A. V.

(c)

Influence of Ionizing Radiation on Processes of Cholinergic Stimulation

A. M. Rusanov, G. A. Bolshakova, A. V. Lazovskiy, G. N. Alekseyeva and V. I. Shvedchikova

The influence of ionizing radiation was studied on processes of cholinergic stimulation in various links of the reflex arc (the central nervous system, vegetative ganglions, neuromuscular synapses) in animals exposed to single total-body X-ray irradiation (100-50000 r). Experiments were carried out on cats, rabbits, white mice and frogs with different tests and methods (electro-encephalography, determination of the summation of nervous impulses, record of contraction in the small intestine and isolated skeletal muscle, determination of cholinesterase activity and cellular respiration efficiency when using pharmacological agents and enzyme poisons).

The investigations established a decrease in cholinergic structure sensitivity to analgesics, neuroplegics and gangliolytics, and an increase in cholinergic structure sensitivity to narcotics, anticholinesterasics, cholinmimetics, curare-like and local anaesthetic substances.

These changes have a phasic character and they depend on the functional ability of the cholinergic structure and the degree of radiation injury.

The changes in the irradiated animal are apparently due (in addition to other factors) to the breakdown of oxidative phosphorylation, the consequence of which may be the breakdown of the acetylcholine metabolism and a change of the cholinergic structure reaction to pharmacological agents.

The Central Research Institute of Medical Radiology of the Ministry of Health, Leningrad, USSR

report presented at the 2nd Intl. Congress of Radiation Research, Harrogate/Yorkshire, Gt. Brit. 5-11 Aug 1962

APPROVED FOR RELEASE: 03/13/2001 CIA-RDP86-00513R000928930002-8"

S/219/63/055/002/003/004
D296/D308

AUTHOR: Lazovskaya, A.V.

TITLE: Local anesthesia in animals exposed to radiation

PERIODICAL: Byulleten' eksperimental'noy biologii i meditsiny, v. 55, no. 2, 1963, 63-67

TEXT: The author studied changes in the effect of superficial (terminal) conduction and infiltration anesthesia in animals exposed to ionizing radiation. In the experiments with superficial (terminal) anesthesia 10 rabbits were exposed to total irradiation with 100 r of X-rays. The effect of a local anesthetic (0.5% dicain) upon the sensitivity of the cornea was tested 1-2 hours, 1 day, 3, 5 and 7 days after irradiation, as well as in the nonirradiated control group. The sensitivity of the cornea was assessed by the number of times a thin hair had to touch the cornea to cause blinking. It appeared that 1-2 hours after the irradiation the efficacy of anesthesia increased by 40% but 1 day after the irradiation the effect was 25% lower than in the control group. At later stages

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S/219/63/055/002/003/004
D296/D308

Local anesthesia ...

(3-7 days) no difference between the groups could be found. The author explains the above findings by means of the direct effect of the radiation upon the corneal nerve endings. In the experiments concerning conduction anesthesia, the sciatic nerves of 88 spinal frogs (Rana temporaria) were stimulated by electrical current. The effectiveness of a 0.1% novocaine solution was assessed by the intensity and duration of the general motor response to stimulation. The live frogs were exposed to 5000 r of X-rays and the experiments were carried out 1-3 hours, 1 day, 3, 7 and 15 days after exposure to radiation. Here too, the local anesthesia was more effective after radiation, suggesting a direct influence of the radiation upon the sensory nerves, an influence which hitherto has been shown to exist only for fatal doses of radiation. In the experiments with infiltration anesthesia guinea pigs were exposed to X-rays, in a dose of 350 r. The effects of local anesthetics (novocaine, bencaine, mesocaine) were assessed by the number of times the infiltrated area had to be pricked with a sharp needle to elicit the skin-muscle reflex. In this case radiation decreased the efficacy of local anesthesia. This is explained with the increased tissue per-

Card 2/3

meability leading to a more rapid resorption of the drug, a view corroborated by signs of general intoxication. There are 1 figure and 2 tables.

ASSOCIATION: Otdelenie eksperimental'noy terapii (rukovoditel' - Prof. A.M. Rusanov), Tsentral'nogo nauchno-issledovatel'skogo instituta meditsinskoy radiologii (Director - zasluzhennyy deyatel' nauki Prof. M.N. Pobedinskij) Ministerstva zdravookhraneniya USSR, Leningrad (Department of Experimental Therapy (Director: Prof. A.M. Ruzanov), Central Research Institute of Medical Radiology (Director: Prof. M.N. Pobedinskij, Merited Scientist) Ministry of Health of the USSR, Leningrad)

PRESENTED: by Academician A.V. Lebedinskiy

SUBMITTED: February 4, 1961

GRYAZNOV, N.S.; LAZOVSKIY, I.M.; FEL'DBRIN, M.G.; KAUFMAN, A.A.; KOMAROVSKAYA, G.M.; LATSKAYA, M.P.; IVANOVA, L.V.

Peculiarities of the process of coking coal with oil additions. Koks i khim. no.16:17-22 '61. (MIRA 15:2)

1. Vostochnyy uglekhimicheskiy institut.
(Coke industry)

GRYAZNOV, N.S.; LAZOVSKIY, I.M.; FEL'DBRIN, M.G.; IVANOVA, L.V.; KOMAROVSKAYA, G.M.

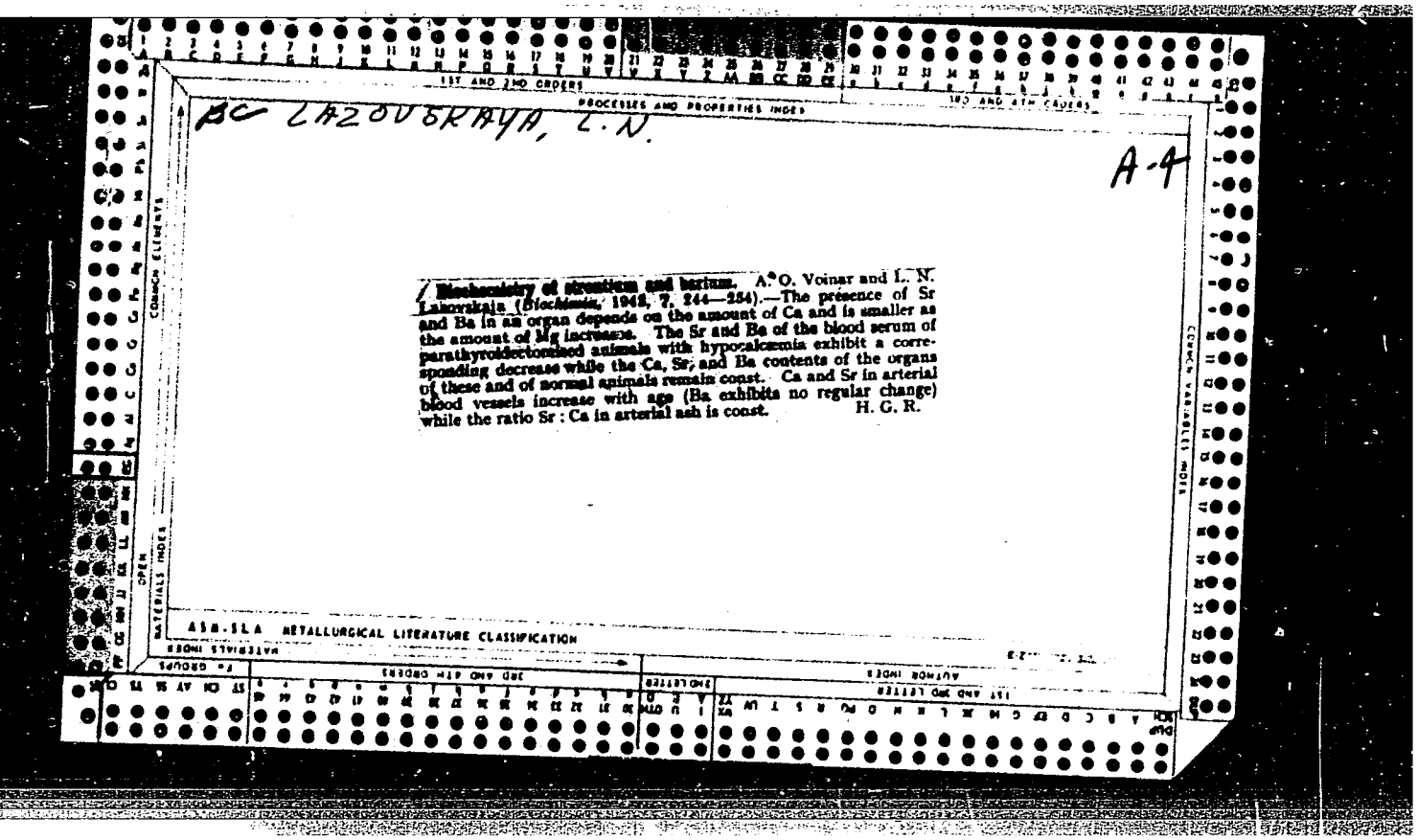
Standardization of methods of coal preparation for coking. Koks i khim. no.4:3-9 '62. (MIRA 16:8)

1. Vostochnyy uglekhimicheskiy institut.
(Coal preparation)

LAZOVSKIY, L.I.

Catch in front of a scale-breaker on a continuous sheet mill.
(MIRA 14:12)

(Rolling mills--Safety devices)

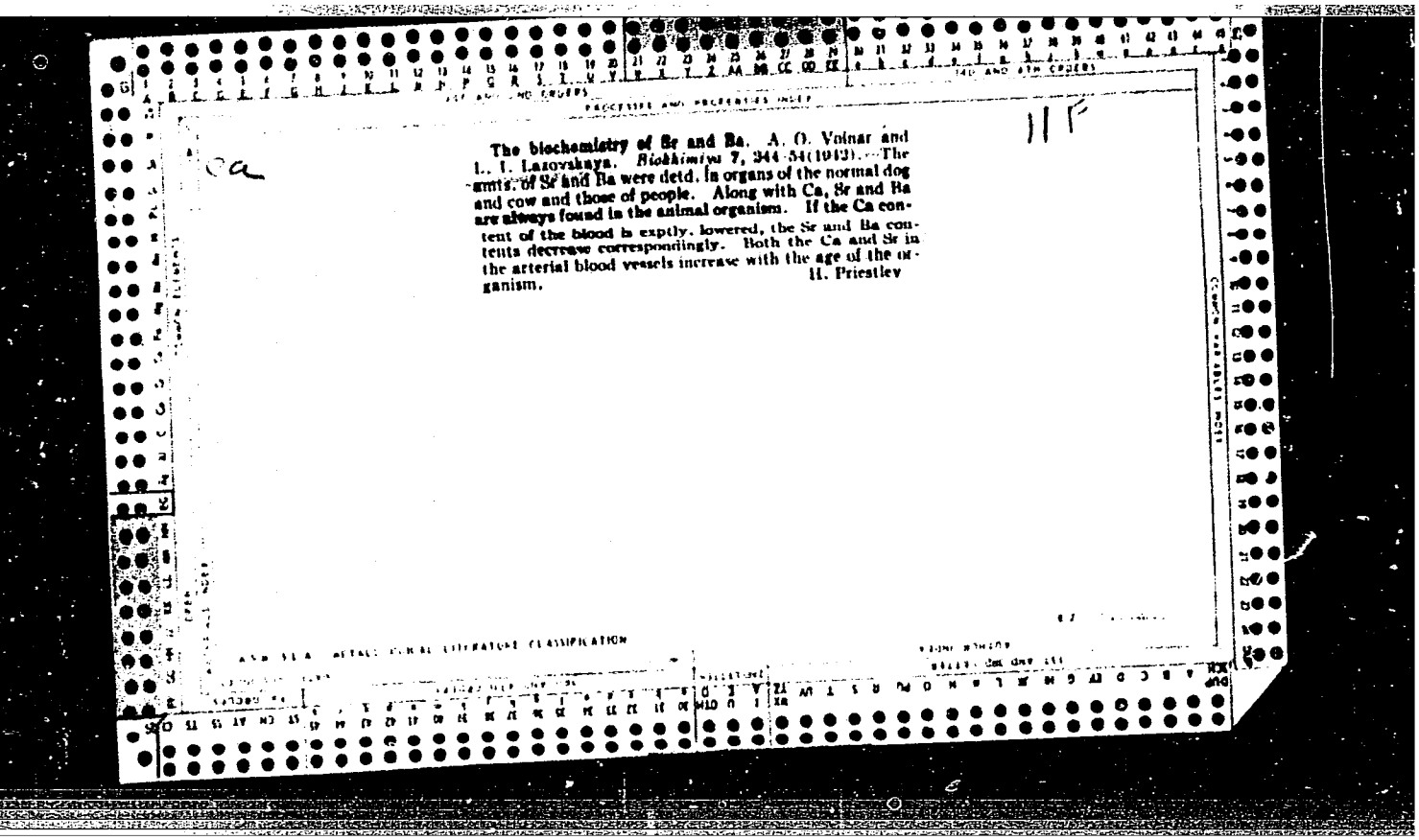


BC LAZOVSKAYA, L.N.

A-4

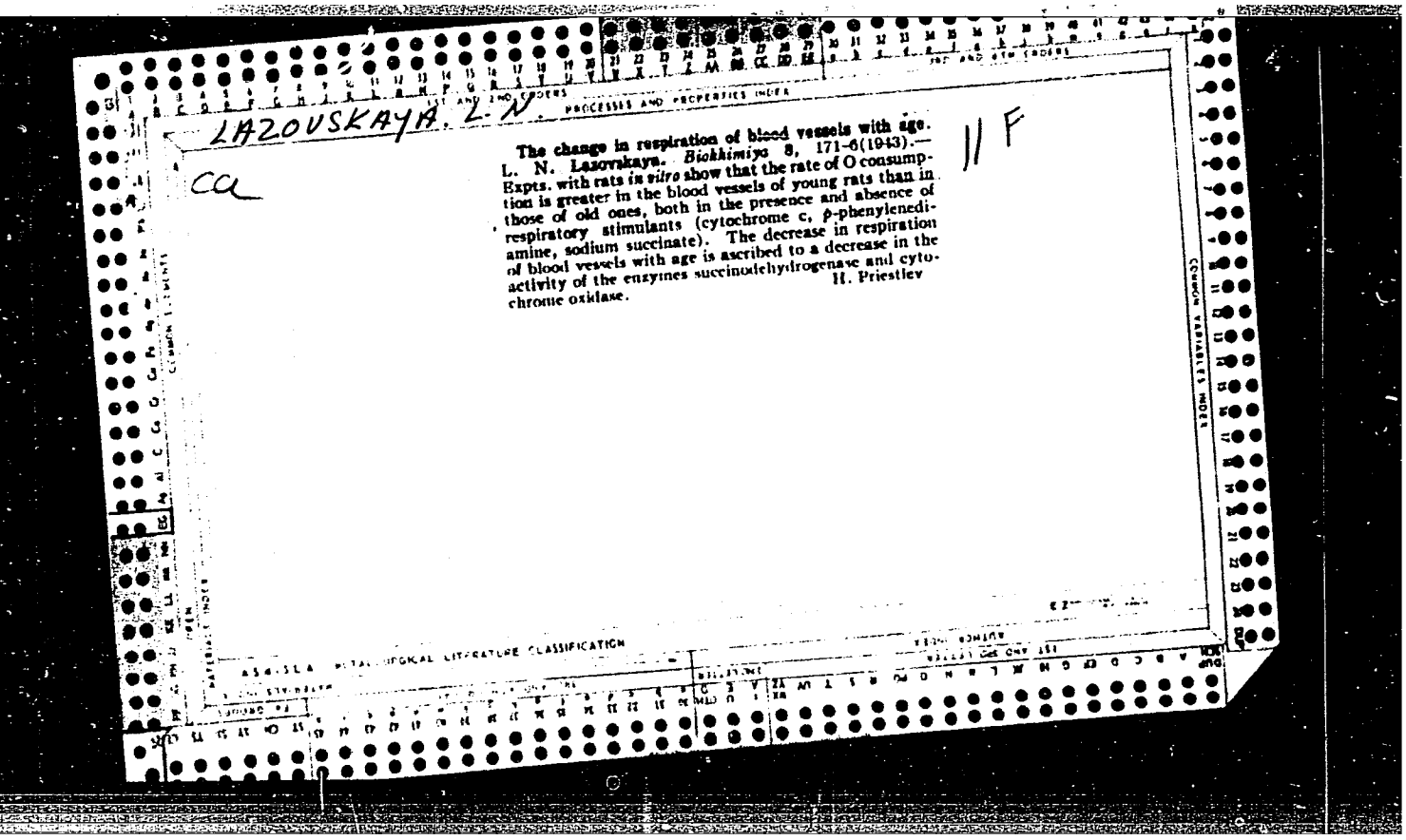
Biochemistry of strontium and barium. A. O. Voinar and L. N. Lazovskaja (*Biochimia*, 1942, 7, 244—254).—The presence of Sr and Ba in an organ depends on the amount of Ca and is smaller as the amount of Mg increases. The Sr and Ba of the blood serum of parathyroidectomised animals with hypocalcæmia exhibit a corresponding decrease while the Ca, Sr, and Ba contents of the organs of these and of normal animals remain const. Ca and Sr in arterial blood vessels increase with age (Ba exhibits no regular change) while the ratio Sr : Ca in arterial ash is const. H. G. R.

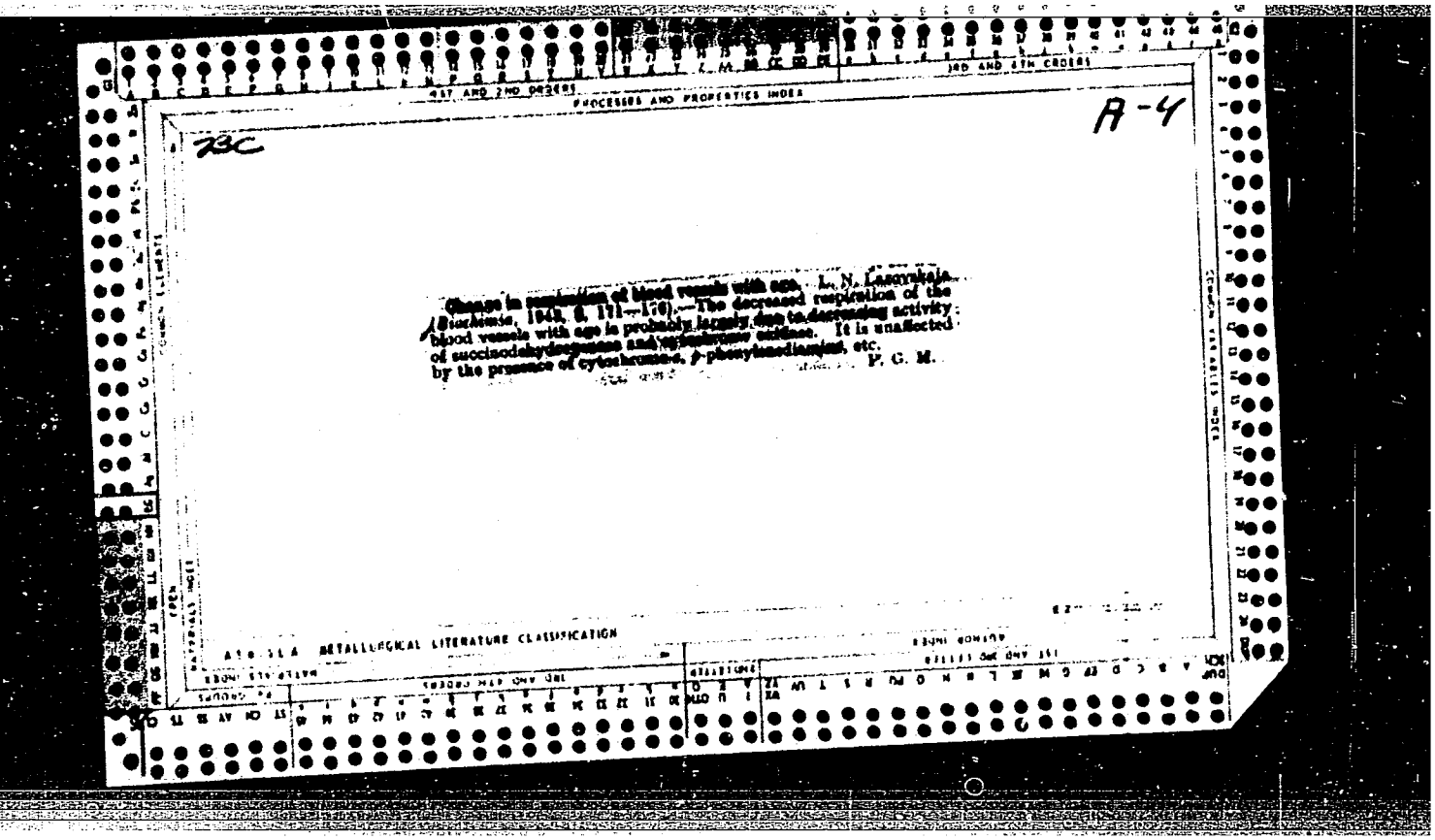
ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION



The biochemistry of Sr and Ba. A. O. Voinar and L. I. Lazovskaya. *Biokhimiya* 7, 344-54(1942).—The amts. of Sr and Ba were detd. in organs of the normal dog and cow and those of people. Along with Ca, Sr and Ba are always found in the animal organism. If the Ca content of the blood is exptly. lowered, the Sr and Ba contents decrease correspondingly. Both the Ca and Sr in the arterial blood vessels increase with the age of the organism.

H. Priestley

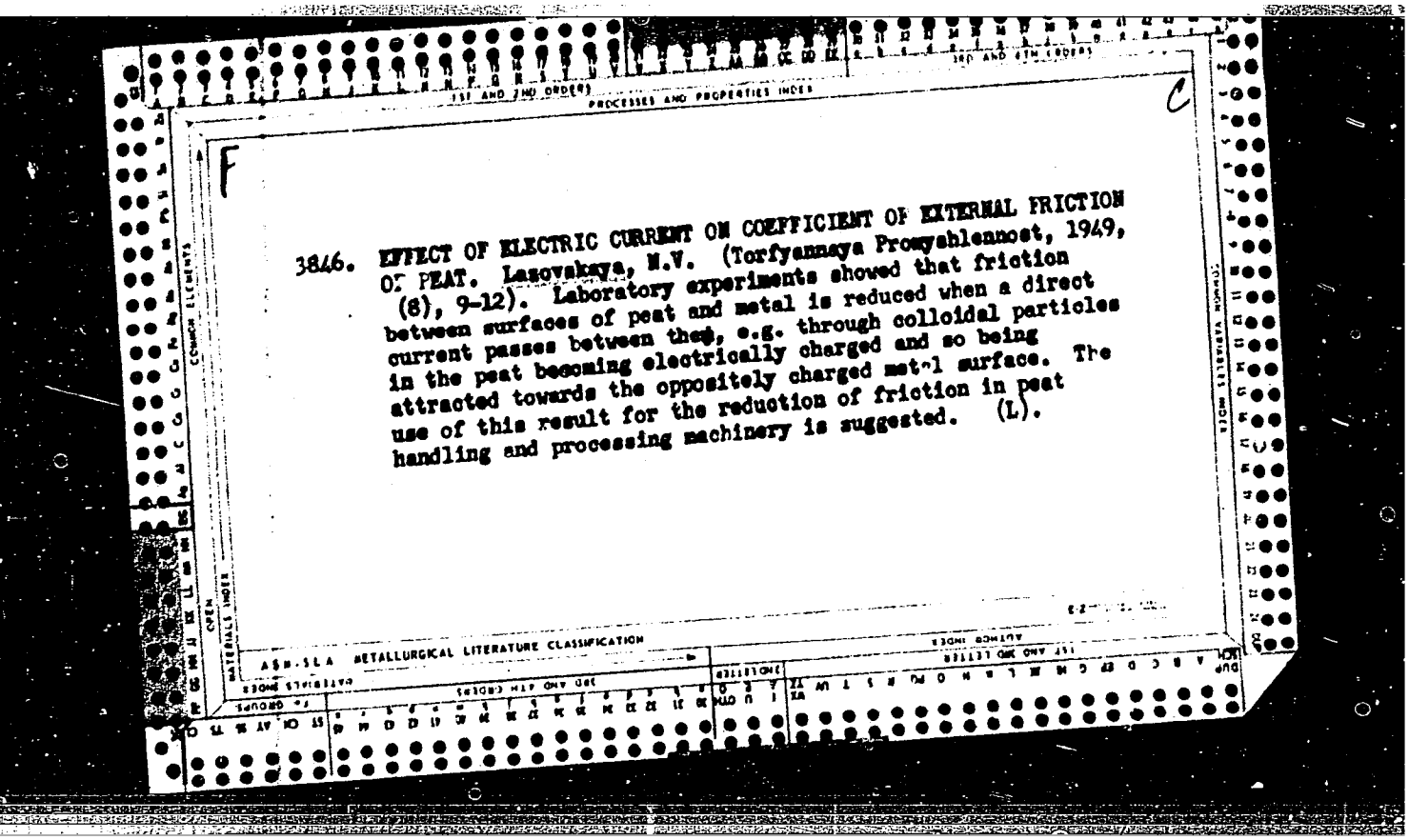




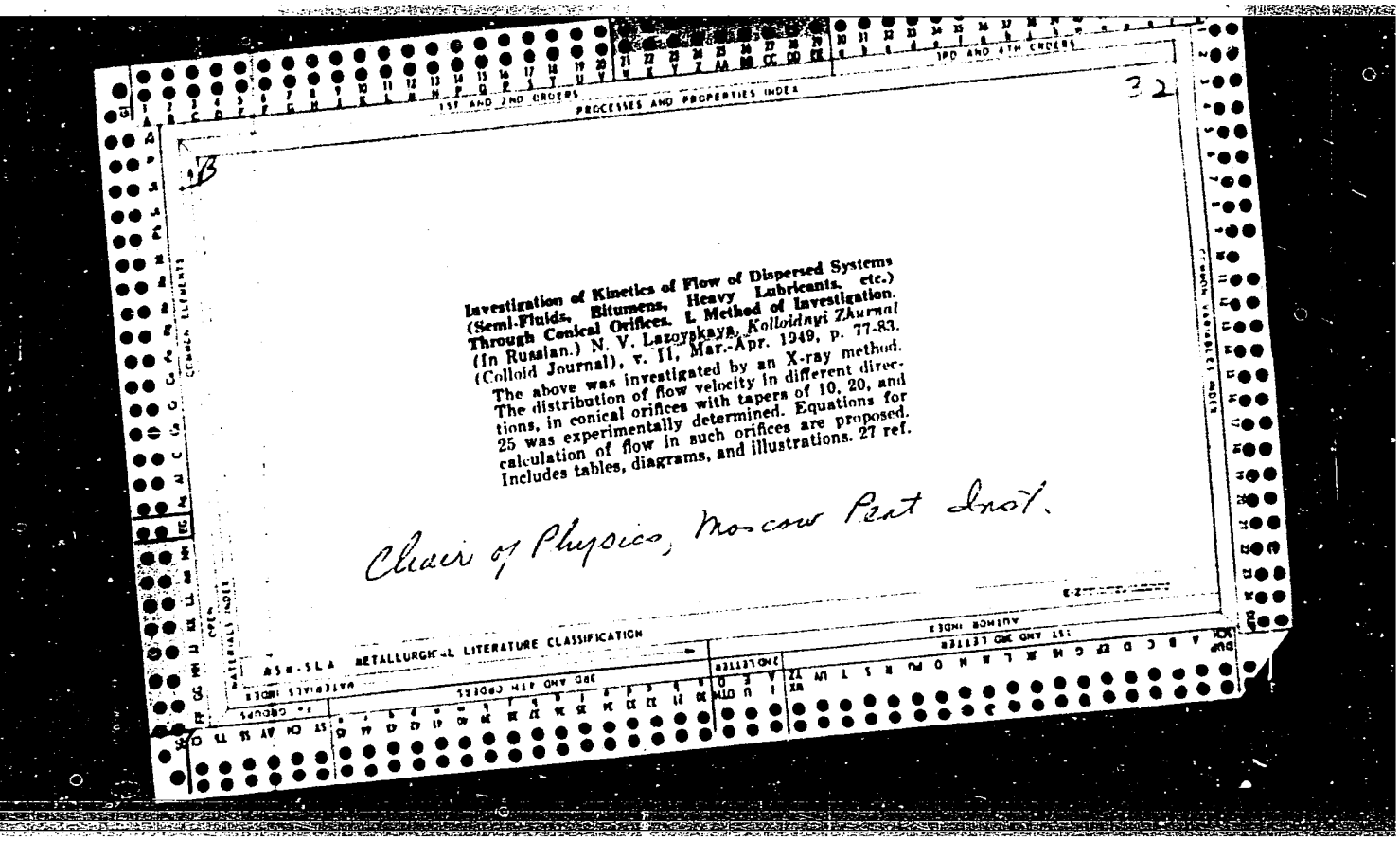
LAZOVSKAYA, N.

"Radioactive isotopes in peat research" by M.P. Volarovich, N.V. Churaev. Reviewed by N. Lazovskaia. Torf. prom. 38 no.7:36-37 '61. (MIRA 14:12)

(Peat)
(Radioisotopes--Industrial applications)
(Volarovich, M.P.)
(Churaev, N.V.)



3846. EFFECT OF ELECTRIC CURRENT ON COEFFICIENT OF EXTERNAL FRICTION OF PEAT. Lasovskaya, N.V. (Torfyannaya Promyshlennost, 1949, (8), 9-12). Laboratory experiments showed that friction between surfaces of peat and metal is reduced when a direct current passes between them, e.g. through colloidal particles in the peat becoming electrically charged and so being attracted towards the oppositely charged metal surface. The use of this result for the reduction of friction in peat handling and processing machinery is suggested. (L).



Investigation of Kinetics of Flow of Dispersed Systems (Semi-Fluids, Bitumens, Heavy Lubricants, etc.) Through Conical Orifices. I. Method of Investigation. (In Russian.) N. V. Lazoryskaya, *Kolloidnyi Zhurnal* (Colloid Journal), v. 11, Mar.-Apr. 1949, p. 77-83.

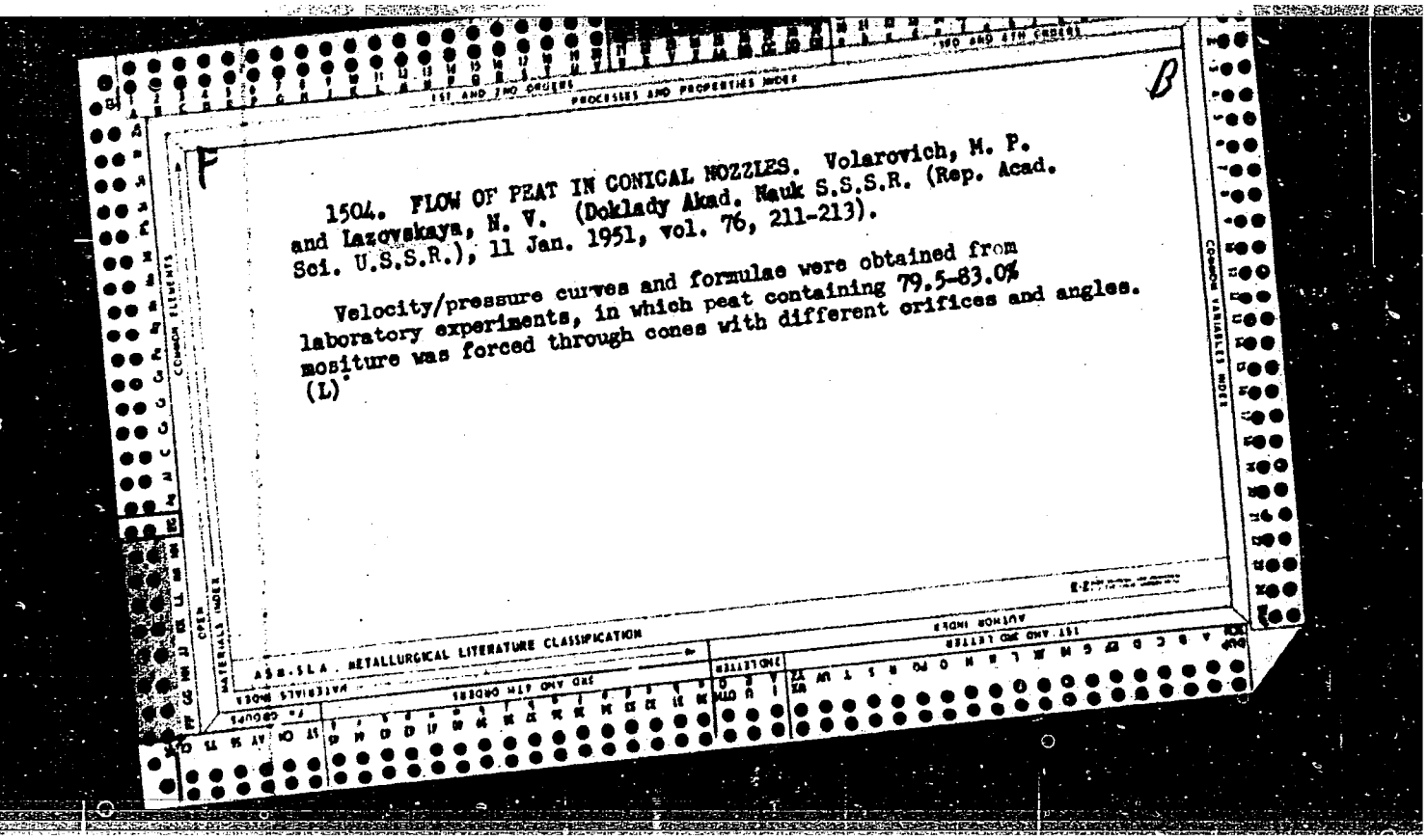
The above was investigated by an X-ray method. The distribution of flow velocity in different directions, in conical orifices with tapers of 10, 20, and 25 was experimentally determined. Equations for calculation of flow in such orifices are proposed. Includes tables, diagrams, and illustrations. 27 ref.

Chair of Physics, Moscow Peat Inst.

LAZOVSKAYA, N. V.

"Investigation of the Flow of Peat in Conical Nozzles,"
Thesis for degree of Cand. Technical Sci. Sub. 30 June 50,
Moscow Peat Inst.

Summary 71, 4 Sep 52, Dissertations Presented for Degrees in Science and Engineering in Moscow in 1950. From Vechernyaya Moskva Jan-Dec. 1950



1504. FLOW OF PEAT IN CONICAL NOZZLES. Volarovich, M. P. and Lazovskaya, N. V. (Doklady Akad. Nauk S.S.S.R. (Rep. Acad. Sci. U.S.S.R.), 11 Jan. 1951, vol. 76, 211-213).

Velocity/pressure curves and formulae were obtained from laboratory experiments, in which peat containing 79.5-83.0% mositure was forced through cones with different orifices and angles. (L)

LAZOVSKAYA, V.V.

report presented at the 1st All-Union Congress of Theoretical and Applied Mechanics, Moscow, 27 Jan - 3 Feb '60.

134. A. A. Ilyushin (Moscow): Problems of the theory of plasticity under combined loading.

135. V. K. Kabulov (Tashkent): Elastic-plastic vibrations of rods of non-circular cross section.

136. V. S. Kalinin (Leningrad): The forced non-linear flexural vibrations of a homogeneous prismatic rod and a very long rectangular plate.

137. S. Kaliski (Warsaw): On a method of solving the equations of motion for an infinite anisotropic medium in the presence of a magnetic field.

138. S. N. Kan, F. A. Shkolni (Kharkov): An engineering method for the design of open prismatic shells.

139. I. I. Kandaurov (Leningrad): The distribution of vertical compressive stresses and strains in foundations in homogeneous or stratified soils.

140. B. Ia. Kantor (Kharkov): Bending of cantilever plates of variable stiffness.

141. K. S. Karapetian (Erevan): The effect of aging and anisotropy on the creep of concrete.

142. L. M. Kachanov (Leningrad): On the time of rupture in creep.

143. L. M. Kachanov (Leningrad): On some variational principles and methods in the theory of plasticity.

144. K. A. Kerimov (Baku): A procedure of determining an impact tension diagram for large deformations.

145. N. A. Kilchevskii (Kiev): Some generalizations of the formulation of elasto-static and elasto-dynamic contact problems and methods for their solution.

146. A. Kh. Kim (Omsk): The flow of a visco-plastic medium in a cone.

147. I. A. Kitover (Leningrad): On the elastic equilibrium of thin, infinite orthotropic plates.

148. K. V. Kovalev (Kharkov): Models of the influence surfaces for the intensity of the bending moment in thin plates and shells.

149. A. D. Kovalenko (Kiev): Shallow shells of revolution of variable thickness in a [illegible] temperature field.

150. M. Komarov (Sofia): Dynamic stability of cylindrical and spherical shells.

151. M. Komarov (Sofia): The influence of initial imperfections of shape on the stability of thin elastic cylindrical sandwich shells under axial compression.

152. W. T. Koiter (Delft): Elastic stability and post-buckling behavior.

153. A. S. Kondratev (Kuibishev), Yu. P. Zurkov (Orenburg): The effect of support elasticity on the natural vibrations of rods.

154. I. M. Kopev, I. A. Oding (Moscow): Strength and plasticity of "whiskers".

155. B. G. Korenev (Moscow): The design of flexible plates and beams on elastic foundation.

156. M. S. Kornishin (Kazan): Bending of rectangular shallow shells with elastic ribs.

157. M. S. Kornishin (Kazan): On the solution of the nonlinear algebraic equations of shell theory.

158. V. G. Korotkin, D. M. Tartakovskii (Leningrad): The one-dimensional problem of the consolidation of a sediment layer with variable specific weight and variable water permeability.

159. A. S. Kosmodamianskii (Saratov): The elastic equilibrium of anisotropic plate with a finite number of elliptical holes.

160. Yu. I. Kosterin (Iaroslavl), I. V. Kragelskii (Moscow): Rheological phenomena in dry friction.

161. Yu. V. Krotov (Stalinsk): Lateral stability of coupled arches with double curvature.

162. A. I. Kuznetsov (Leningrad): On the theory of plane plastic stress.

163. V. N. Kukudzhanov, L. V. Nikitin (Moscow): Propagation of elastic, visco-plastic waves in bars.

164. V. D. Kupradze (Tbilisi): The investigation of contact problems in the theory of elasticity by the method of singular integral equations.

165. N. V. Lazovskaia (Moscow): The investigation of the deformations or strains on models by the X-ray method.

166. A. Langenbach (Berlin): Application of the non-linear variational principle to some problems of the theory of elastic-plastic strains.

167. S. M. Levi (Moscow): The investigation of rheological properties of gelatin solutions.

84279
S/069/60/022/005/010/011
B004/B064

11.2210

AUTHOR: Lazovskaya, N. V.

TITLE: The Work of the Subsection of the All-Union Congress on Mechanics

PERIODICAL: Kolloidnyy zhurnal, 1960, Vol. 22, No. 5, pp. 643-647

TEXT: The pervyy Vsesoyuznyy s"yezd po teoreticheskoy i prikladnoy mekhanike (First All-Union Congress on Theoretical and Applied Mechanics) was held in Moscow from January 27 to February 3, 1960. It was convened by the Natsional'nyy komitet SSSR po teoreticheskoy i prikladnoy mekhanike (National Committee of USSR of Theoretical and Applied Mechanics), the Otdeleniye tekhnicheskikh nauk Akademii nauk SSSR (Department of Technical Sciences of the Academy of Sciences, USSR), and the Moskovskiy gosudarstvennyy universitet (Moscow State University). The Congress worked in three sections: Section of General Applied Mechanics, Section of Mechanics of Gas and Fluid, Section of Solid State. The Subsection of Rheology headed by M. P. Volarovich belonged to the latter. Forty reports were delivered in this subsection, dealing with the rheological properties of easily

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S/069/60/022/005/010/011
B004/B064

The Work of the Subsection of the All-Union Congress on Mechanics

deformable substances as, e.g., disperse systems and macromolecular compounds. M. P. Volarovich mentioned in his opening speech a paper by N. I. Malinin (Kolloidnyy Zhurnal, 1955, Vol. 17, No. 4, p. 332), the Third International Congress on Rheology 1958 in Marburg at which the Soviet researchers N. V. Mikhaylov, G. V. Vinogradov, A. A. Trapeznikov, and Yu. A. Daynega took part, and the meeting of the International Committee on Rheology. The following reports were delivered in the subsection: P. A. Rebinder, "Types of Macromolecular and Disperse Structures and the Mechanical Properties Characteristic of Them"; G. V. Vinogradov and V. P. Pavlov, "The Principal Mechanical Properties of Consistent (Plastic) Lubricants as Solids" G. V. Vinogradov, A. A. Mamakov, and V. P. Pavlov, "Investigation of Soft Plastics in a Composite State of Stress". N. V. Mikhaylov reported on the deformation of visco-plastic materials, G. M. Bartenev on rheological properties of rubber-like polymers, A. A. Trapeznikov and T. G. Shalopalkina on experiments carried out with aluminum naphthenate gel. T. V. Assonova, T. I. Zatsepin, and A. A. Trapeznikov delivered a report on "The Shearing Strength and the Ultimate Reversible Deformations of the Solutions and Gels of Some Rubbers".

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The Work of the Subsection of the All-Union Congress on Mechanics

S. S. Vyalov spoke about deformation of ice based upon work performed in the Antarctica; S. Ye. Fraynfel'd dealt with a simplified rheological equation; N. I. Malinin with creeping deformations due to rupture of the molecular chains of high-polymers; T. D. Shermergor reported on the mechanical deformation of visco-elastic bodies; A. A. Abbasov, A. F. Kasimov, and Ya. A. Shvarts on consecutive motion of immiscible visco-elastic fluids; A. A. Abbasov, V. M. Mekhtiyev, and A. A. Mirzoyan treated the problem of the motion of viscous and visco-elastic fluids in tubes, which they solved with the help of G. L. Grinberg's method; A. I. Leonov reported on some problems of the unsteady flow of an incompressible visco-elastic Maxwellian fluid. A. I. Leonov and M. D. Nusinov spoke about some problems of quasistationary flow of Maxwellian fluid. G. T. Gasanov and S. G. Gurbanov studied hydrodynamic problems of the unsteady flow of viscous and visco-elastic fluids; I. M. Astrakhan investigated the motion of visco-elastic fluid on the boundary layer. G. I. Fuks, V. P. Pavlov, and V. V. Vaynshtok delivered reports on visco-elastic flow, creeping, and thixotropy of structured systems, above all of lubricants. Yu. M. Ivanov spoke about the strength of polymers as a function of time and temperature; V. V. Andreyev, A. M. Kosevich, and L. V. Tanatarov on inelastic and residual deformations of a plane layer of a solid in allo-

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tropic transformations. Problems of the equilibrium in elasto-plastic media between solid boundaries were dealt with by A. M. Gutkin, M. P. Volarovich, and A. Kh. Kim; N. V. Tyabin studied the flow of an elastic visco-plastic medium on the boundary layer. F. S. Fadeyeva spoke about deformation of ceramics; V. V. Vedeneyev about the flow of bitumens, R. V. Torner about the application of the similarity principle for calculating the isothermal flow of rubber mixtures. M. V. Gzovskiy, I. Ya. Kuznetsova, and D. I. Osokina reported on the application of optical polarization for the study of tensions. N. V. Lazovskaya dealt with the investigation of the deformation of drains with X-rays. Yu. I. Kosterin and I. V. Kragel'skiy studied rheological processes in dry friction; S. V. Levi reported on rheological properties of gelatin; A. Ye. Desov's report dealt with the propagation of vibrations in concrete; S. K. Noskov treated the viscous behavior of elastic-plastic-viscous materials during vibration. M. P. Volarovich, G. Ya. Voronkov, Ye. P. Kovalevskiy, and G. I. Kuzhman reported on the rate of propagation of longitudinal waves in peat; B. A. Dogadkin on the chemical relaxation of stress in steric polymers. In conclusion, it is mentioned that for some special cases solutions of the Hencky (Genki) - Il'yushin equations have been found, and pointed out to some problems hitherto unsolved.

Card 4/4

LAZOVSKAYA O. V. OCT. 48

USSR/Engineering
Bearing - Lubrication
Engines, Aircraft - Cold Weather Operation

"Application of the Hydrodynamic Theory of Friction for Bearings Operating Under Low Temperatures," M. P. Volarovich, O. V. Lazovskaya, Inst Mach Studies Acad Sci USSR, 5½ pp

"Iz Ak Nauk SSSR, Otdel Tekh Nauk" No 10

Low bearing temperatures are encountered when starting automobile and aero engines in winter. Experiments show that hydrodynamic theory of bearing lubrication holds good for auto oils down to-30°. Includes five diagrams and one table. Submitted 6 July 48.

PA 21/49T35

Lazovskaya, O.V.

VOLAROVICH, M.P., LAZOVSKAYA, O.V.

"Studies of Friction in a Pair of Cylindrical Bearings at Low Temperatures"
Symposium no. 4, "Friction and Wear in Machines"
Academy of Sciences, 1949

LAZOVSKAYA, O.V.

PHASE I BOOK EXPLOITATION SOV/5055

Vsesoyuznaya konferentsiya po treniyu i iznosu v mashinakh. 3d, 1958.

Gidrodinamicheskaya teoriya smazki. Opory skol'zheniya. Smazka i smazochnyye materialy (Hydrodynamic Theory of Lubrication. Slip Bearings. Lubrication and Lubricant Materials) Moscow, Izd-vo AN SSSR, 1958. 422 p. Errata slip inserted. 3,300 copies printed. (Series: Its: Trudy, v. 3)

Sponsoring Agency: Akademiya nauk SSSR. Institut mashinovedeniya. Resp. Eds. for the Section "Hydrodynamic Theory of Lubrication and Slip Bearings": Ye. M. Gut'yar, Professor, Doctor of Technical Sciences, and A. K. D'yachkov, Professor, Doctor of Technical Sciences; Resp. Ed. for the Section, "Lubrication and Lubricant Materials": G. V. Vinogradov, Professor, Doctor of Chemical Sciences; Ed. of Publishing House: M. Ya. Klebanov; Tech. Ed.: O. M. Gus'kova.

PURPOSE: This collection of articles is intended for practicing engineers and research scientists.

COVERAGE: The collection, published by the Institut mashinovedeniya AN SSSR (Institute of Science of Machines, Academy of Sciences USSR) contains papers presented at the III Vsesoyuznaya konferentsiya po treniyu i iznosu v mashinakh (Third All-Union Conference on Friction and Wear in Machines) which was held April 9-15, 1958. Problems discussed were in [illegible] and SOV/5055

Hydrodynamic Theory (Cont.)

Korovchinskiy, M. V. On Unsteady Motions of the Journal in a Bearing (Treniye i iznos v mashinakh" T. 13, Izd-vo AN SSSR, 1960) 164

II. LUBRICATION AND LUBRICANT MATERIALS

Lubricant Materials and Wear

Vinogradov, G. V. Some New Methods of Producing and Investigating Lubricant Materials 165

Al'khits, I. Ya., Ye. M. Ogarina, L. M. Sentyurikhina, and L. M. Sushkina. Experiment Using Disulfide of Molybdenum as a Lubricant Material 172

Berbrodko, M. D., M. T. Pavlovskaya, and V. V. Arkharova. Effect of the Composition and the Character of Gaseous Media on the Wear-Resistant Properties of Petroleum Lubricating Oils 177

Vintaĭ, S. V. Contact Effect in Wear as a Factor in the Oxidation of the Oil in Engines 187

Vinogradov, G. V., V. V. Arkharova, N. T. Pavlovskaya, and M. D. Berbrodko. Wear-Resistant and Antifriction Properties of Salt Fusions 191

Vishnyakov, Ya. A., and V. G. Lebedev. Abrasive Wear of Roller Bearings in the Presence of a Lubricant Material 198

Klimov, K. I., and G. I. Kichkin. Critical Temperature of an Oil Film in Sliding Contact of Steel Surfaces, and the Dispersive Capacity of the Oil 201

Lazovskaya, O. V. Methods for Determining the Critical Temperatures of an Oil Film in the Case of Friction of Steel Against Antifriction Alloys 212

Korozova, O. Ye. Wear-Resistant Reactions of Sulfur-organic Compounds as Additives to Lubricant Oils 218

Card 2/4

S/081/61/000/019/070/085
B117/B110

11.9000

AUTHOR: Lazovskaya, O. V.

TITLE: Method for determining the critical temperatures of the oil film during friction of steel on antifriction alloys

PERIODICAL: Referativnyy zhurnal. Khimiya, no. 19, 1961, 426, abstract 19M207 (Tr. 3-y Vses. Konferentsii po treniyu i iznosu v mashinakh. M., AN SSSR, v.3, 1960, 212-217)

TEXT: A method has been developed for determining the critical temperatures of the oil film on antifriction alloys during friction of the latter with steel. The proposed friction scheme "ball of hardened steel -- ring-shaped sample of antifriction metal" guarantees constant specific pressure in the surface contact during the test. Tests according to this scheme were carried out on a 4-ball machine type KT-2 (KT-2). During the following rise in temperature, the upper ball and the lower sample were not exchanged (prior to the test, the samples were kept for 1 hr in the oil to be tested). According to the method described the critical

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S/081/61/000/019/070/085
B117/B110

Method for determining the critical...

temperature of the vaseline oil, comprising an additive of stearic acid anu lubricant AF-7 (AF-7) of 0.1%, was determined with sufficient reproducibility of results on a number of copper alloys subjected to friction with steel. The scheme of the working unit of machine KT-2 is given. [Abstracter's note: Complete translation]

/B

Card 2/2

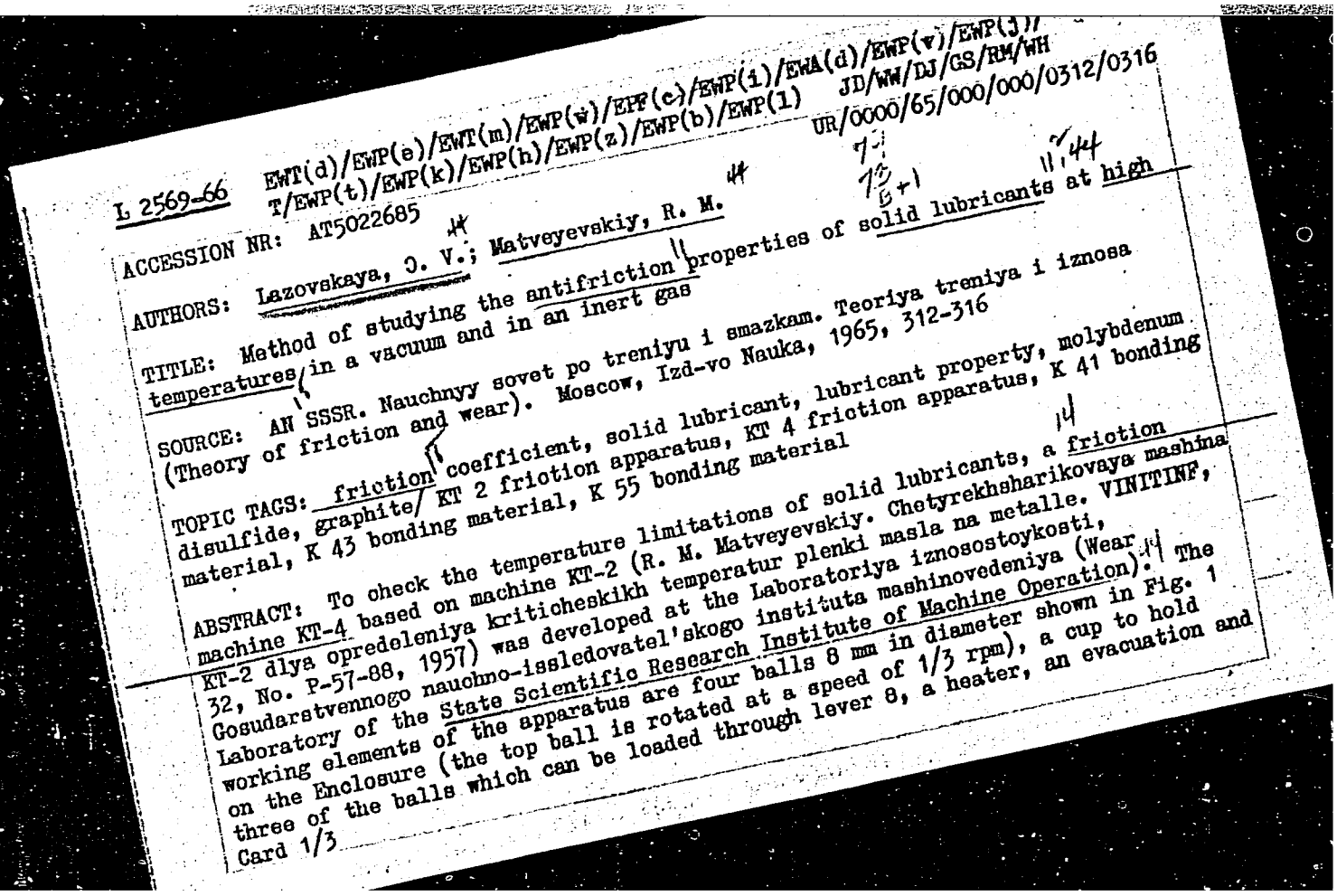
A procedure for determining the ... S/883/62/000/000/017/020
E194/E155

friction of copper alloy against copper alloy, up to 40 kg/cm^2. The critical temperature falls somewhat at higher specific pressures, presumably because of plastic strain in the surface layer of the softer of the two materials in contact, causing local breakdown of the lubricant film.
There are 6 figures.

Card 3/3

KHRUSHCHOV, M.M.; SEMENOV, A.P.; MATVEYEVSKIY, R.M.; LAZOVSKAYA, O.V.; BELOUSOV, N.N.; KOLESNIKOVA, V.N.

Investigating lubricated and nonlubricated friction of antifriction bronzes and brasses. Tren. i izn. v mash. no.17:36-70 '62. (MIRA 17:10)



L 2569-66 EWT(d)/EWP(e)/EWT(m)/EWP(w)/EPF(c)/EWP(i)/EWA(d)/EWP(v)/EWP(j)/
T/EWP(t)/EWP(k)/EWP(h)/EWP(z)/EWP(b)/EWP(l) JD/WW/DJ/GS/RM/WH

ACCESSION NR: AT5022685 UR/0000/65/000/000/0312/0316

AUTHORS: Lazovskaya, O. V.; Matveyevskiy, R. M.

TITLE: Method of studying the antifriction properties of solid lubricants at high temperatures in a vacuum and in an inert gas

SOURCE: AN SSSR. Nauchnyy sovet po treniyu i smazkam. Teoriya treniya i iznosa (Theory of friction and wear). Moscow, Izd-vo Nauka, 1965, 312-316

TOPIC TAGS: friction coefficient, solid lubricant, lubricant property, molybdenum disulfide, graphite, KT 2 friction apparatus, KT 4 friction apparatus, K 41 bonding material, K 43 bonding material, K 55 bonding material

ABSTRACT: To check the temperature limitations of solid lubricants, a friction machine KT-4 based on machine KT-2 (R. M. Matveyevskiy. Chetyrekhsharikovaya mashina KT-2 dlya opredeleniya kriticheskikh temperatur plenki masla na metalle. VINITINF, 32, No. P-57-88, 1957) was developed at the Laboratory of the State Scientific Research Institute of Machine Operation (Wear Gosudarstvennogo nauchno-issledovatel'skogo instituta mashinovedeniya (Wear Laboratory of the State Scientific Research Institute of Machine Operation). The working elements of the apparatus are four balls 8 mm in diameter shown in Fig. 1 on the Enclosure (the top ball is rotated at a speed of 1/3 rpm), a cup to hold three of the balls which can be loaded through lever 8, a heater, an evacuation and

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ACCESSION NR: AT5022685

6

inert gas pressurization system, and auxiliary environmental and measuring equipment. A number of MoS_2 and graphite-based lubricants with different bonding materials were tested in argon and in a vacuum over a temperature range of 20-700C at a constant load of 1.43 kg and a constant speed of 1/3 rpm. It was found that in argon organic bonding materials (K-41, K-43, K-55) permitted operation to 600C before the friction coefficient rose drastically. Sodium silicate bonding was only effective to 500C. In a vacuum ($\approx$ 10-4 mm Hg), MoS_2 with a metallic bonding (galvanic silver) gave best results (still good at 700C, f $\approx$ 0.09), while other bonding materials deteriorated after $\approx$ 500C, i.e., f started increasing rapidly after decreasing steadily between 20 and 500C. Orig. art. has: 4 figures.

ASSOCIATION: Nauchnyy sovet po treniyu i smazkam, AN SSSR (Scientific Committee on Friction and Lubrication, AN SSSR)

SUBMITTED: 18May65 44 ENCL: 01 SUB CODE: FP, ME

NO REF SOV: 003 OTHER: 005

Card 2/3

L 2569-66

ACCESSION NR: AT5022685 ENCLOSURE: 01

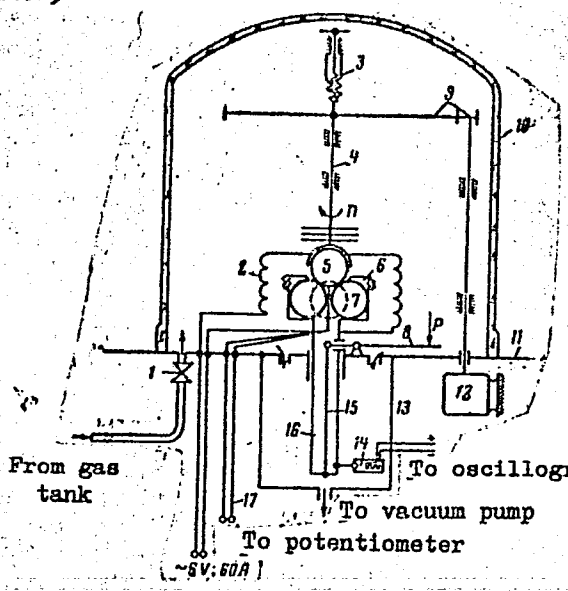

Fig. 1. Schematic of experimental apparatus

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L 03770-67 EWT(m)/T DJ

ACC NR: AP6019219 SOURCE CODE: UR/0380/66/000/002/0086/0090

AUTHOR: Matveyevskiy, R. M. (Moscow); Lazovskaya, O. V. (Moscow)

ORG: None

TITLE: Investigation of the effect of various technological factors and temperature on the antifriction properties of solid lubrication coatings based on molybdenum disulfide

SOURCE: Mashinovedeniye, no. 2, 1966, 86-90

TOPIC TAGS: antifriction material, solid lubricant, molybdenum disulfide, urea resin, metal friction, formaldehyde, protective coating

ABSTRACT: A report is given on tests of a solid lubricant based on molybdenum disulfide with a binder of ureaformaldehyde resin (VNII NP-212). This study was undertaken at the Laboratory of Wear Resistance of the State Scientific Research Institute of Machine Science. The coatings were tested on ShKh-6 steel subjected to various types of surface pretreatment. Lubricant coatings of various thicknesses with various ratios of binder to lubricant were studied. The experiments were done at room temperature with 8 mm ball specimens rotating at a rate of 1 rpm with an axial load of 11 kg which corresponds to an initial specific load of 200 kg/mm^2. Changes in the force of friction were recorded during testing. Four spherical specimens were rotated against each

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UDC: 621.892/536.21

L 03770-67

ACC NR: AP6019219

other in tetrahedral formation under three types of conditions: 1. solid lubricant only on the upper sphere with uncoated lower spheres; 2. a lubricating layer on the lower spheres with an uncoated upper sphere; 3. all four spheres coated. The proposed method may be used for determining the effect of various technological factors on the antifriction properties of solid lubricant coatings under conditions of high contact pressures at various temperatures. It was found that the most effective surface treatment for steel operating under friction conditions in air is parkerizing or sandblasting followed by parkerizing before coating with lubricant. Sandblasting is the preferable surface treatment for steel to be used under vacuum friction conditions. Parkerizing after sandblasting in these conditions impairs the strength of the lubricant coating at temperatures above 400°C. Variations in coating thickness between 5 and 15 microns has practically no effect on the coefficient of friction. Minimum binder concentration gives a minimum coefficient of friction for coatings of this type at room temperature. A coating based on molybdenum disulfide with silicone binder gives a low coefficient of friction in vacuum (10^{-4} mm Hg) up to 600°C. Orig. art. has: 6 figures.

SUB CODE: 11,20/SUBM DATE: 29Jun65/ ORIG REF: 003

Card 2/2

ACC NR: AP7003636 (A) SOURCE CODE: UR/0380/67/000/001/0108/0115

AUTHOR: Matveyevskiy, R. M. (Moscow); Lazovskaya, O. V. (Moscow)

ORG: none

TITLE: Temperature stability of antispalling coatings and protective layers in friction in various gas media

SOURCE: Mashinovedeniye, no. 1, 1967, 108-115

TOPIC TAGS: metal friction, antifriction material, ~~antiseize additive,~~ antifriction coating, ~~coating thermal stability, coating~~ friction coefficient, contact stress, protective coating, silver, cadmium, copper, thermal stability

ABSTRACT: The Wear Resistance Laboratory at the Institute of the Science of Machines has investigated the antifriction properties and behavior of various protective and antispalling coatings in friction under high contact loads at a sliding velocity of 0.01 cm/sec and temperatures ranging from 20 to 700C in a vacuum of 10^{-4}—10^{-5} mm Hg or in an inert gas under a pressure of 1.1 atm. The friction was produced by rotating a ball of ShKh-6 ball-bearing steel 8 mm in diameter on top of three fixed identical balls. The rotating ball had a coating from various antifriction and antispalling materials, while the fixed balls had none; the contact load between the rotating ball and each fixed ball was 1.43 kg. Silver coating was found to have the lowest friction coefficient

Card 1/3 UDC: 620.162.4

ACC NR: AP7003636

in the widest temperature range: from a value of 0.25 at 20C, it gradually decreased to 0.08 at 500—550C and then sharply increased again to 0.25 at 700C. Cadmium coating had a constant friction coefficient of 0.22 in the 20—200C range, but it increased sharply to 0.32 at 250C. The temperature-induced changes in the friction coefficient of the copper coating were analogous to those of the silver: a gradual increase from 0.4 at 20C to 0.12 at 550C followed by an increase to 0.14 at 700C. The nickel coating had a friction coefficient of 0.4—0.6 and exhibited intermittent sliding in the entire investigated temperature range. The friction coefficients of molybdenum disulfide film over silver, copper and nickel coatings decreased to 0.07—0.1 in the 20—500C range, and that of cadmium coating to 0.1 at temperatures up to 200C. An MoS_2-base VNII NP-229 coating (sodium silicate film-forming agent) and a VNII NP-213 coating (silicoorganic film-forming agent) had a friction coefficient of about 0.012 at 20C, which slowly decreased to about 0.005 at 500C; the coatings failed at temperatures above 500C and 600C, respectively. Soft protective coatings on steel formed by parkerizing or sulfiding ensure friction coefficients of the order of 0.15—0.25 in vacuum at temperatures up to 500C; at higher temperatures, the coatings decompose. Electroless nickel plating of steel ensures in vacuum a friction coefficient of 0.3—0.4 at temperatures up to 300C; at higher temperatures the friction coefficients increase sharply. Borided layers on hardened steel had particularly stable friction coefficients (about 0.2) in vacuum in the entire 20—700C range.

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ACC NR: AP7003636

A borided layer on annealed steel had higher but significantly more temperature-dependent friction coefficients. Orig. art. has: 8 figures and 1 table. [MS]

SUB CODE: 11, 13/ SUBM DATE: 27Nov66/ ORIG REF: 010/ OTH REF: 008/
ATD PRESS: 5115

Card 3/3

L 9455-66 EWT(m)/EWP(j) RM

ACC NR: AP5025011 SOURCE CODE: UR/0286/65/000/016/0075/0075

AUTHORS: Takhtarov, G. N.; Trofimovich, D. P.; Gerlakh, L. R.; Podshibyakina, G. S.; Zaborina, N. B.; Lazovskaya, R. A.; Yefimov, V. M.; Kalachev, V. A.; Mayorov, D. A.

ORG: none

TITLE: Foam generator for an installation for continuous mixing and foaming of latex mixtures. Class 39, No. 173911 announced by the Scientific Research Institute for Rubber and Latex Products (Nauchno-issledovatel'skiy institut rezinovykh i lateksnykh izdeliy)

SOURCE: Byulleten' izobreteniy i tovarnykh znakov, no. 16, 1965, 75

TOPIC TAGS: foam generator, latex foamer, latex mixer, SYNTHETIC RUBBER, RUBBER WORKING MACHINERY

ABSTRACT: This Author Certificate presents a foam generator (see Fig. 1)

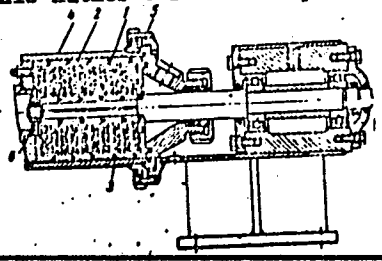

Fig. 1. 1 - Rotor; 2 - stator; 3 - seals; 4 - body; 5 and 6 - nuts.

UDC: 678.021.1:621.187.115

L 9455-66

ACC NR: AP5025011

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for installations for continuous mixing and foaming of latex mixtures. This device includes an electric drive on the shaft of which is mounted a rotor in the form of disks with concentric circular teeth on both sides which fit into the clearances between the circular teeth mounted on stator disks. To increase the foaming capability and capacity while decreasing the physical size, the rotor and stator consist of many-sectioned dismountable disk packets mounted through rotary seals inside a cylindrical body and tightened by nuts. Orig. art. has: 1 figure.

SUB CODE: 13/ SUBM DATE: 05Mar64

Card 2/2 pw

L 10109-65 EWT(1)/EWP(m)/EPA(s)-2/EWT(m)/EPF(n)-2/EWG(v)/FCS(k)/EWP(b)/EWA(1) Pd-4/Pe-5/Pt-10/Pi-4/Pu-4 BSD/AFETR/AEDC(a)/ASD(f)-2/ESD(gs)/SSD/ASD(p)-3/AFWL/ASD(a)-5/AEDC(b) JD/WW/JG

ACCESSION NR: AP4046352 S/0057/64/034/010/1879/1887

AUTHOR: Tumakayev, G. K.; Lazovskaya, V. R.

TITLE: Investigation of the state of mercury vapor in a shock tube by observation of Rozhdestvenskiy hooks

SOURCE: Zhurnal tekhnicheskoy fiziki, v. 34, no. 10, 1964, 1879-1887

TOPIC TAGS: shock wave front, shock wave thermodynamics, shock tube, gas dynamics, mercury, Rozhdestvenskiy hook method

ABSTRACT: Determination of the distribution of the vapor particles (atoms and ions) and electrons across the shock wave can yield valuable information on the dynamics of the physical processes that take place in shock tubes. The present work was devoted to study of the distribution of Hg atoms and ions on the $6s^1S_0$ and $6p^3P_{0,1,2}$ levels in front of and behind a shock wave and is a continuation of earlier work (Yu. A. Dunaev, G. K. Tumakaev, and A. M. Shukhtin, ZhTF, 34, 1119, 1961). The experimental setup, described in the cited paper, was essentially modified; a new low-pressure chamber consisting of a

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L 10409-65

ACCESSION NR: AP4046352

stainless-steel cylinder 3.5 meters long and 73 mm in diameter was installed. The length of the high-pressure section was 2 m. A DFS-8 spectrograph and twin cameras were used to obtain the interference patterns; these were photographed by the light of one flash from an improved flash lamp. The level populations were determined by observation of the Rozhdestvenskiy "hooks" (inflections or "hooks" in the interference bands). Measurements were carried out in the Mach-number range from 6 to 10.5. Some of the results are presented in the form of graphs: plots of N/N ratios as a function of distance from the shock-wave front and as a function of Mach number. The variation in these parameters is indicative of the complex nature of the various processes that occur in Hg vapor incident to passage of a shock wave. It was found that in Hg vapor there is abundant population of the $6p^3P_{0,1,2}$ levels in the region ahead of the wave front. At the wave front the concentration of normal and excited atoms increases by an amount corresponding to compression of an ideal monatomic gas. Two regions of the nonequilibrium zone in the flow behind the shock wave may be distinguished; in one, the departure from ideal gas behavior is minor; in the other, thermodynamic equilibrium is established almost instantaneously; ionization and excitation of electron

Card 2/3

L 10109-65
ACCESSION NR: AP4046352

3

levels occur simultaneously. Strong cooling of the gas in the flow beyond the nonequilibrium zone is observed. Here a Boltzmann distribution of the particles over energy levels is observed. "The authors are grateful to Prof. Yu. A. Dunaev for his attention and his interest in the work and to Ye. M. Zubkov for assistance in setting up the apparatus and in carrying out the experiments." Orig. art. has: 3 figures and 1 table.

ASSOCIATION: Fiziko-tekhnicheskiy institut im. A. F. Ioffe AN SSSR, Leningrad (Physicotechnical Institute, AN SSSR)

SUBMITTED: 25Nov63 ATD PRESS: 3119 ENCL: 00

SUB CODE: ME NO REF SOV: 008 OTHER: 006

Card 3/3

LAZOVSKIY, F., arkhitektor

Prefabricated one-story houses to be built in Transcaucasia.
Zhil.stroi. no.9:15-17 '59. (MIRA 13:1)
(Transcaucasia--Architecture, Domestic)

LAZOVSKIY, I.

Changes in the leucocyte and thrombocyte composition of the blood, the number of mast cells and eosinophilic leucocytes in connective tissues, and the copper content of the blood serum under the effect of histamine. Izv. AN Latv. SSR no.10:121-127 '62. (MIRA 16:1)

(BLOOD—ANALYSIS AND CHEMISTRY)
(HISTAMINE) (CONNECTIVE TISSUES)

LAZOVSKIY, I. M.

"Development of New Methods of Evaluating the Qualities of Coke." Min Higher Education USSR. Ural'sk Polytechnic Inst imeni S. M. Kirov, Sverdlovsk, 1953 (Dissertation for the Degree of Candidate of Technical Sciences)

SO: Knizhnaya Letopis', No. 32, 6 Aug 55

LAZOVSKIY, I.M.

V 3929. EFFECT OF COKING REGIME ON THE QUALITY OF COKE. Erkin, L.I. and Lazovskii, I.N. (Stal (Steel, Moscow), 1953, (6), 487-493; abstr. in Ref. Zh. Khim. (Ref. J. Chem., Moscow), 1955, (20), 47045). A practical investigation of the relationships between coking conditions, coke quality and the operation of blast furnaces, is recorded. (1)

LAZOVSKIY, I.M., kandidat tekhnicheskikh nauk; ZABRODSKIY, M.P., inzhener; KAPEL'ZON, I.G., inzhener.

Efficient layout of the preparation unit in a modern coke plant. Koks i khim. no.1:8-11 '56. (MLRA 9:5)

1. Vostochnyy uglekhimicheskiy institut (for Lazovskiy); 2. Nizhniy Tagil'skiy koksokhimicheskiy zavod (for Zabrodskiy); 3. Magnitogorskiy metkombinat (for Kapel'zon).
(Coal preparation)

LAZOVSKIY, I.M.; DONDE, M.V.; P'YANKOV, Ye.A.

Averaging coals and blended charges in the piles and in the preparation section of the copruct coke plant. Koks i khim.no.2:12-17 '56.
(MLRA 9:7)

1.Vostochnyy uglekhimicheskiy institut (for Lazovskiy).2.Chelyabinskiy metallurgicheskiy zavod.
(Coal handling)

LAZOVSKIY, I.M.; VARSHAVSKIY, T.P.; NEPOMNYASHCHIY, I.L.; GERASIMOVA, L.S.

Comments on the article of R.Z.Lerner "Changing the coking unit layout for a considerable increase in the number of ovens per battery." Koks i khim.no.7:28-31 '56. (MLRA 9:12)

1. Vostochnyy uglekhimicheskiy institut (for Lazovskiy and Varshavskiy). 2. Konstruktorskoye byuro Glavmashmeta Ministerstva chernoy metallurgii (for Nepomnyashchiy). 3. Glavkoks Ministerstva chernoy metallurgii SSSR (for Gerasimova).
(Coke ovens) (Lerner, R.Z.)

~~LAZOVSKIY, I.M.~~

LAZOVSKIY, I.M.

Fuel

3

New principles in coal-crushing techniques in preparation for coking. N. S. Gryaznov, I. M. Lazovskii, and M. G. Fel'dbein. *Koks i Khim.* 1956, No. 8, 3-10.—The question of the rational limits of crushing and the methods of grinding coal in prepn. for coking is discussed under the following heads: (1) the modification of the structural strength of the coke with the grinding of the coal charge; (2) cracking or fissuring of the coke as a function of coal size; (3) variation in screen size of the coke with fineness of grinding; (4) basic principles of coal crushing. Summarized conclusions: (1) the finer the grinding of coal of any petrographic structure or degree of rank the lower the structural strength of the coke due (*a*) to the consequent deterioration in agglutinating power as indicated by rise in viscosity and decrease in thickness of the plastic layer and (*b*) to the lowering of its apparent sp. gr. (2) Formation of cracks is diminished because of weakening of inner tensions due to (*a*) rise of thermal cond. of the charge and (*b*) to the diminution of the caking capacity of the coal. (3) The basic principle for the rational prepn. of coal by crushing to insure improvement of the phys.-mech. properties of the coke and the utilization of weakly caking coals is that of lowering the upper limits of grain size by min. formation of fines. (4) Especially important is the preliminary scpn. of fines before charging the oven.

H. L. Olin

AUTHOR: Lazovskiy, I.M., Fel'dbrin, M.G. and Gryaznov, N.S. (Vukhin).

TITLE: Coking of blends prepared by differential grinding. (Koksovanie ugol'nykh shikht, podgotovlennykh metodom izbiratel'nogo drobleniya.)

PERIODICAL: "Koks i Khimiya" (Coke and Chemistry), 1957, No. 4, pp. 8 - 12, (U.S.S.R.)

ABSTRACT: Seven different schemes of grinding coal for coking were investigated. The first four schemes (Fig. 1) were simple schemes related to normal grinding (93 ± 1% of below 3 mm): scheme 1 - standard; 2 consists of separating the size 3 mm; 3 - separation of the size 3 mm and its regrinding and return to the blend; and 4 - separation from coal - 3 mm size and standard grinding of larger sizes and their subsequent remixing. Three remaining schemes (Fig. 2) differ in that intermediate sizes (4-2 mm or 6-3 mm) are separated and then finely ground. Moreover, scheme 7 differed from others in that only diluting coals were differentially ground while the remaining part of the blend is ground in the usual manner. Coking of the experimental blends of three different compositions (Table 1) was carried out in a pilot plant (VUKhIN). Results of the coking experiments are given in Table 2. The best results were obtained using 5 and 6 schemes, the strength of the coke increased and the proportion of 80-60 mm size in the metallurgical coke increased by 3-7%. Blends made from petrographically

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Coking of blends prepared by differential grinding. (Cont.)

non-uniform coals should be treated as a whole, preferential grinding of the individual components was found to be less effective. It is concluded that preferential grinding will permit an increase in the proportion of gas coals in blends. Confirmation of the above results on full scale ovens is recommended. There are 2 tables and two graphs.

68-58-3-1/22

AUTHORS: Fel'dbrin, M.G., Gryaznov, N.S. and Lazovskiy, I.M.

TITLE: Utilisation of Gas and Weakly-caking Coals in Blends of the Eastern Works (Ispol'zovaniye gazovykh i slabospekayushchikhsya ugley v shikhtakh vostochnykh zavodov)

PERIODICAL: Koks i Khimiya, 1958, Nr 3, pp 3 - 5 (USSR).

ABSTRACT: The possibility of increasing the proportion of gas and weakly-caking coals in blends used on the Eastern Coke Oven Works and the choice of correct blends which are able to accommodate 40-60% of the above coals were investigated. Blends containing gas coals were prepared by a preferential grinding on a pilot plant, VUKhIN. The composition of experimental blends is given in Tables 1 and 3, from which it can be seen that gas coals were replacing fat and well-caking coals. The method of preferential grinding is described in some detail. Coking was done on a semi-industrial plant; the results obtained are given in Tables 2 and 4. Conclusions: preferential grinding of blends containing 40-60% of gas coals considerably improves the strength of coke (by 12-28 kg) providing that the blends possess sufficient caking ability ($y \geq 15$ mm). However, despite a considerable increase in coke strength by preferential grinding, the latter

Card1/2 cannot secure the production of coke similar in strength to

Utilisation of Gas and Weakly-caking Coals in Blends of the Eastern Works

that of current production. Further increase in the coke strength can be obtained by applying preferential grinding and stamp charging. The results obtained should be confirmed by trials under industrial conditions. There are 4 tables.

ASSOCIATION: VUKhIN

Card 2/2

68-58-6-2/21

AUTHORS: Zolotukhin, A. I., Candidate of Technical Science, Lazovskiy, I. M. and Filyashin, K. Ya.

TITLE: A Method of Automatic Determination and Control of the Moisture Content of Coal Charge (Metod avtomaticheskogo opredeleniya i regulirovaniya vlazhnosti ugol'noy shikhty)

PERIODICAL: Koks i Khimiya, 1958, Nr 6, pp 6-10 (USSR)

ABSTRACT: An instrument is described for continuous determination of moisture content in the coal blend based on a condenser pick-up, the capacity of which depends on the dielectric permeability of the blend, the latter depending mainly on the moisture content. The instrument, in conjunction with water sprays, the operation of which is related to the moisture meter, can be used for maintaining a constant moisture content of the blend. The meter was developed by VUKhIN and its operation was tested on the Magnitogorsk and N. Tagil' Metallurgical Combines with satisfactory results. It is pointed out that the size distribution of a coal blend and its moisture content are the main factors governing its bulk density. However, the influence of size distribution is comparatively small, so that by maintaining moisture content on a constant level, the bulk density

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SOV/24-58-6-31/35

AUTHORS: Gryaznov N.S., Lazovskiy I.M. and Fel'dbrin M.G. (Sverdlovsk)

TITLE: Contribution to the Theory of Coke Formation in Connection with the Selective Grinding of Coals (K teorii formirovaniya koksa v svyaze s izbiratel'nym izmel'cheniyem ugley)

PERIODICAL: Izvestiya Akademii Nauk SSSR, Otdeleniye tekhnicheskikh Nauk, 1958, Nr 6, pp 144-148 (USSR)

ABSTRACT: Laboratory and semi-production coking test results with selective grinding of coal have shown that at Eastern coke plants more gas and weakly caking coals can be used and coke quality with normal coals improved. The authors deal first with the structural (crack-free) strength of coke, tabulating (Table 1) results which show that it is reduced by selective grinding. Other results (Table 2) indicate that the viscosity of the coal mix on softening rises, the effect being obtained (Table 3) when petrographically homogeneous coals are ground. The authors discuss the increase in internal friction of the plastic mass which occurs with all coals as the coal-grain surfaces are opened up. The decrease in charge bulk

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Contribution to the Theory of Coke Formation in Connection with the Selective Grinding of Coals

density produced by selective grinding leads to higher porosity and this, together with the poorer caking, accounts for the deleterious effect of such grinding on structural strength. The authors consider next the lump strength of coke, showing (Table 1) that this increases with selective grinding. They attribute this to the greater petrographic and size uniformity and consequent reduction of internal stresses. Finally the authors summarize the effects of selective grinding for various types of charge: coke stability is improved when a low-stability coke is otherwise obtained from strongly caking coals; with charges containing a high proportion of gas coals a strong coke is not obtained; a relatively small improvement in coke strength is obtained with charges

 which normally give a medium-shatter, structurally strong

Contribution to the Theory of Coke Formation in Connection with the Selective Grinding of Coals

coke; strong coke is not obtained with low-caking charges normally giving a highly abrading coke. For preventing reduction of structural strength due to selective grinding the authors recommend tamping of the charge and quote some test results.

There are 5 tables and 6 references (5 Soviet, 1 French)

SUBMITTED: July 16, 1957

Card 3/3

AUTHORS: Lazovskiy, I.M., Bogoyavlenskiy, V.V., and Fel'dbrin, M.G. SOV/68-58-9-2/21

TITLE: Averaging Coals and the Choice of the Type of Coal Stockyard for Modern Coking Works (Usrednеniye ugley i vybor tipa ugol'nogo sklada dlya sovremennogo koksokhimicheskogo zavoda)

PERIODICAL: Koks i Khimiya, 1958, Nr 9, pp 6-9 (USSR)

ABSTRACT: During the All-Union Conference of the Workers of the Coking industry the following permissible deviations (from mean) for coke quality were established: drum tests ± 4kg, sulphur ± 0.05, ash ± 0.3%. These limits of variation impose the following limits for variation in the proximate analysis of coal blends: ash ± 0.3%, sulphur ± 0.05%, volatile matter ± 0.7%. To obtain the above degree of stability in the properties of coal blends, averaging of coals on stockyards and blending plants is necessary. Using methods of statistical analysis the authors discuss the necessary blending facilities for various examples of coking works supplied with a different number of coal types with a given variability in properties of coal from the individual deliveries. It is concluded that for

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Averaging Coals and the Choice of the Type of Coal Stockyard for Modern Coking Works

SOV/68-58-9-2/21

works supplied from nearby coal mines with a uniform in quality coal (ash ± 0.6, volatiles ± 2.0) the construction of bunker installations serving simultaneously for averaging and blending coals is recommended. For works situated far from the supplying base and obtaining coals from a large number of mines the construction of a stock yard for averaging coals as distinct from the blending plant is considered necessary.
There is 1 table, and 4 references (3 Soviet and 1 English)

ASSOCIATION: VUKhIN

Card 2/2

LAZOVSKIY, I.M.

5(1) PHASE I BOOK EXPLOITATION SOV/2127

Koksokhimicheskoye proizvodstvo; sbornik statey (By-Product Coking Industry; Collection of Articles) Moscow, Metallurgizdat, 1959. 240 p. 2,500 copies printed.

Ed.: B. S. Filippov; Ed. of Publishing House: A. A. Revyakin; Tech. Ed.: P. G. Islent'yeva

PURPOSE: The book is intended for engineers and technicians in the by-product coking industry and in scientific research institutes. The book may also be used by students in secondary and higher technical schools.

COVERAGE: The articles in this collection on the by-product coking industry appeared originally either in the periodical Koks i khimiya (Coke and Chemistry) or in other publications during 1955-1958. The book discusses the development of raw-material reserves for coking, technology of the manufacture of coke, quality of coke and further enlargement of the number of chemical coking products obtained. Some articles are devoted to a new procedure for preparing and beneficiating coals, new methods for coking, and to the mechanization and automation of industrial processes. References accompany individual articles.

AVAILABLE: Library of Congress

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SOV/68-59-6-2/25

AUTHORS: Lazovskiy, I.M., Gryaznov, N.S., Fel'dbrin, M.G. (VUKhIN), Pakhalok, I.F., Poputnikov, F.A., Yurenkov, N.I. and Lyamin, I.N. (VNIIUglebogashcheniye)

TITLE: Preparation of Coal Blend by Air Ellutriation with Crushing of Large and Heavy Particles (Podgotovka ugol'nykh shikht vozdushnoy separatsiyey s drobleniyem krupnykh i tyazhelykh chastits)

PERIODICAL: Koks i Khimiya, 1959, Nr 6, pp 5-8 (USSR)

ABSTRACT: The use of air ellutriation in the preparation of coal blends by preferential crushing is proposed. The method consists in that a coal or a coal blend of a size 25-0 mm is air ellutriated in a pipe, so that 3-0 mm size fraction is removed by the air stream and the 25-3 mm fraction is crushed and again air ellutriated. A pilot plant installation erected for this purpose (fig) and some experimental results obtained are described. Coal blends used on one of the Eastern coking works were used for experiments. Size distributions of coal blends and quality of coke obtained by the usual crushing and preferential crushing with and without air ellutriation are shown in Tables 1 and 2. It was found that the use of air ellutriation decreases the proportion of dust

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Preparation of Coal Blend by Air Ellutriation with Crushing of Large and Heavy Particles

(0.42 - 0 mm) by 5.8% and the distribution of ash between the individual size fraction is more uniform (ash content of larger particles is somewhat lower than that of fine fractions) and the coke obtained (on a pilot plant) was stronger than from blends prepared by preferential crushing without air ellutriation. The design and construction of a large scale experimental plant for preferential crushing with air ellutriation in a closed cycle is recommended.

Card 2/2 There are 1 figure, 2 tables and 5 Soviet references.

GRYAZNOV, N.S.; LAZOVSKIY, I.M.; FEL'DBRIN, M.G.

Increasing the use of gas coal in coking oven charges in eastern plants. Ugol' 34 no.4:60-62 Ap '59. (MIRA 12:7)

1. Vostochnyy uglekhimicheskiy institut.
(Ural Mountain region--Coke ovens)

DONDE, M.V.; KAGASOV, V.M.; FOMIN, A.P.; LAZOVSKIY, I.M.

Extent and method of filling silos as factors affecting the accuracy of proportioning the components of coal charges. Koks i khim. no.2:16-18 '60. (MIRA 13:5)

1. Chelyabinskiy metallurgicheskiy zavod (for Donde, Kagasov, Fomin). 2. Vostochnyy uglekhimicheskiy institut (for Lazovskiy).
(Coal--Carbonization)

GRYAZNOV, N.S.; LAZOVSKIY, I.M.; FEL'DBRIN, M.G.; KORENSKIY, V.I.

Preparing coal for coking by the method of pneumatic and mechanical separation. Koks i khim. no.8:4-6 '61. (MIRA 15:1)

1. Vostochnyy uglekhimicheskiy institut.
(Coal) (Coke)

FEL'DBRIN, M.G.; LAZOVSKIY, I.M.

Quality of coke in foreign countries. Koks i khim. no.7:52-59 '63. (MIRA 16:8)

1. Vostochnyy uglekhimicheskiy institut.
(Coke)

GRYAZNOV, N.S.; LAZOVSKIY, I.M.; FEL'DBRIN, M.G.

Coal preparation for coking by means of preliminary heating and efficient crushing. Koks i khim. no.11:10-12 '62. (MIRA 15:12)

1. Vostochnyy uglekhimicheskiy institut.
(Coal preparation)

KANAVETS, P.I.; MELENT'YEV, P.N.; YENIK, G.I.; IVLEVA, A.S.; LAZOVSKIY, I.M.; GRYAZNOV, N.S.; MOCHALOVA, G.V.; KORENSKIY, V.I.

Preliminary granulating of coal charges with rolling in mazut. Koks i khim. no.8:10-14 '63. (MIRA 16:9)

1. Institut goryuchikh iskopayemykh AN SSSR (for Kanavets, Melent'yev, Yenik, Ivleva). 2. Vostochnyy uglekhimicheskiy institut (for Lazovskiy, Gryaznov, Mochalova, Korenskiy).
(Coal preparation)

TSIPEROVICH, M.V., doktor tekhn.nauk; LAZOVSKIY, I.M., kand.tekhn.nauk;
FEL'DERIN, M.G., kand.tekhn.nauk

Review of A.A.Agroskin and A.K.Shelkov's book "Expansion of the resources of coking coals." Koks i khim. no.9:63-64 '63.
(MIRA 16:9)

(Coke) (Agroskin, A.A.) (Shelkov, A.K.)

MIROSHNICHENKO, A.M., kand. tekhn. nauk; PANCHENKO, S.I., doktor tekhn. nauk; SHTROMBERG, B.I., kand. tekhn. nauk; FRISHBERG, V.D., kand. tekhn. nauk; BAYDALINOV, P.A., inzh.; GRYAZNOV, N.S., doktor tekhn. nauk; ZASHKVARA, V.G., doktor tekhn. nauk; LAZOVSKIY, I.M., kand. tekhn. nauk; MARINICHEV, B.T., inzh.; FEL'DBRIN, M.G., kand. tekhn. nauk; BAKUN, N.A., inzh.; BARATS, B.M., inzh.; VOZNYY, G.F., kand. tekhn. nauk; MIKHAL'CHUK, A.M., inzh.; TOPORKOV, V.Ya., kand. tekhn. nauk; FLORINSKIY, N.V., inzh.; KHAYET, A.N., inzh.; SHELKOV, A.K., inzh., red.; ARONOV, S.G., doktor tekhn.nauk, red.; PREOBRAZHENSKIY, P.I., inzh., red.

[Manual for coke chemists in six volumes] Spravochnik koksokhimika v shesti tomakh. Moskva, Izd-vo "Metallurgiia." Vol.1. [Source of raw materials and preparation of coal for coking] Syr'evaia baza i podgotovka uglei k koksovaniiu. 1964. 490 p. (MIRA 17:5)

[illegible], I. V. Cand. Veterinary Sci.

Dissertation: "[illegible] of Geese and Preventive Measures in the Collective and State Farms of Belorussia." All-Union Inst of Helminthology imeni Academician K. I. Skryabin, 17 Jun 47.

SO: Vechernyaya Moskva, Jun, 1947 (Project [illegible])