SERGEYEV, P.A., inzh.

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(Conveying machinery) (Vibrators)

SERGEYeV, P. A. Cand Tech Sci — (diss) "Investigation of the Operation of Vibration Transporting Vehicles," Moscow, 1960, 22 pp, 200 copies (Institute of Mining, AS USSR) (KL, 46/60, 126)

SERGEYEV, P.A., inzh.

New vibratory conveyer. Mekh.i avtom.proizv. 14 no.5:35-37 My '60.
(MIRA 14:2)

(Conveying machinery)

SERGEYEV, P.A., inzh.

Designing and constructing a vibrating conveyor with accentric drive. Izv. vys.ucheb. zav.; gor. zhur. no.5:78-86 1960. (MIRA 14:3)

1. Leningradskiy ordena Lenina i ordena Trudovogo Krasnogo Znameni gornyy institut imeni G. V. Plekhanova. Rekomendovana kafedroy rudnichnogo transporta.
(Conveying machinery)

SERGEYEV, P.A. (Leningrad)

Investigating the behavior of loose materials in vibratory conveying. Izv.AN SSSR. Otd.tekh.nauk.Mekh.i mashinostr. no.5:150-153 S-O '60. (MIRA 13:9)

1. Leningradskiy gornyy institut.
(Conveying machinery) (Vibrators)

SERGEYEV, P.A., inzh.

Designing resonance vibrating conveyers with an electromagnetic drive. Stroi.i dor.mash. 6 no.4:22-25 Ap '61. (MIRA 14:3)
(Conveying machinery)

SERGEYEV, P.A., kand.tekhn.nauk

Vibratory drive for conveyors, feeders and other mechanisms.
Mekh.i avtom.proizv. 16 no.9:39-41 S '62. (MIRA 15:9)
(Conveying machinery) (Feed mechanisms)

GONCHAREVICH, Igor' Fomich; SERGEYEV, Petr Aleksandrovich; PETRUN'KIN, L.P., inzh., retsenzent; KOLDOMASOV, Ye.I., red.; BYSTRITSKAYA, V.V., red. izd-va; UVAROVA, A.F., tekhn. red.

[Vibratory machines in construction] Vibratsionnye mashiny v stroitel'stve; osnovy teorii, proektirovaniia i rascheta. Moskva, Mashgiz, 1963. 310 p. (MIRA 16:5)
(Vibrators)

BUR'YAN, V.B.; SERGEYEV, P.A.

New heat insulation for power machinery of electric power plants.
Energ. i elektrotekh. prom. no.3:24-26 Jl-S '62.
(MIRA 18:11)

SERGEYEV, P. A.

Clover and timothy in field crop rotation. Moskva. Moskovskii rabochii, 1949. 100 p.

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Agriculture

Growing of red colver for seeds: Moskva, Gos. izd-vo selkhoz lit-ry, 1951. (Biblioteka kolkhoznika).

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SERGEYEV, P. A.

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Fertilizing clover and grass mixtures with lime and other fertilizers. Korm. baza 3 no. 8, 1952.

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SERGEYEV, P. A.

Fertilizers and Manures

Effect of nutrition in the first year of growth of mixed grasses on hardiness of clover and yield of the grass stand. Sov. agron. 10 no. 8, 1952.

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Increasing red clover crop yields. Moskva, Znanie, 1953. 31 p. (Ser. 5, no. 12)

SERGEYEV, P.A., doktor sel'skokhozyaystvennykh nauk; KARUNIN, B.A., kandidat sel'skokhozyaystvennykh nauk.

More attention to the expansion of clover growing. Zemledelie 4 no.5:10-15 My '56. (MLRA 9:8)

(Clover)

SERGEYEV, P.A., doktor sel'skokhozyaystvennykh nauk.

Foliar feeding of red clover. Zemledelie 4 no.7:115-117 Jl '56.
(Clover) (Fertilizers and manures) (MLRA 9:9)

SERGEYEV, P. N.

Foliar feeding of red clover. P. A. Sergeev. *Zemledelie* 4, No. 7, 115–17(1956).—Results of 3 years of tests show that foliar feeding of red clover is most effective when applied once, during the height of blooming, or twice, at the beginning and at the height of blooming. The increase in yield of seed for one application was 49.7% and for 2 applications 51.3%. The nutrients used were 5% each of NH_4NO_3, KCl, and ext. of superphosphate (prepd. 24 hrs. before using the supernatant liquid)/ha. The solns. were mixed just before spraying. Individually the soln. of 5% superphosphate ext. gave the highest yield. Isotope studies with P show that at blooming a concn. of P takes place in the seeds. Spraying with soln. of B (250 mg. B/l. with 1000 l. of H_2O/ha.) during blooming increased the yield of seed 53–79%. Dusting with B salts at the rate of 0.5 kg./ha. increased the yield 45–84%.

L. S. Joffe

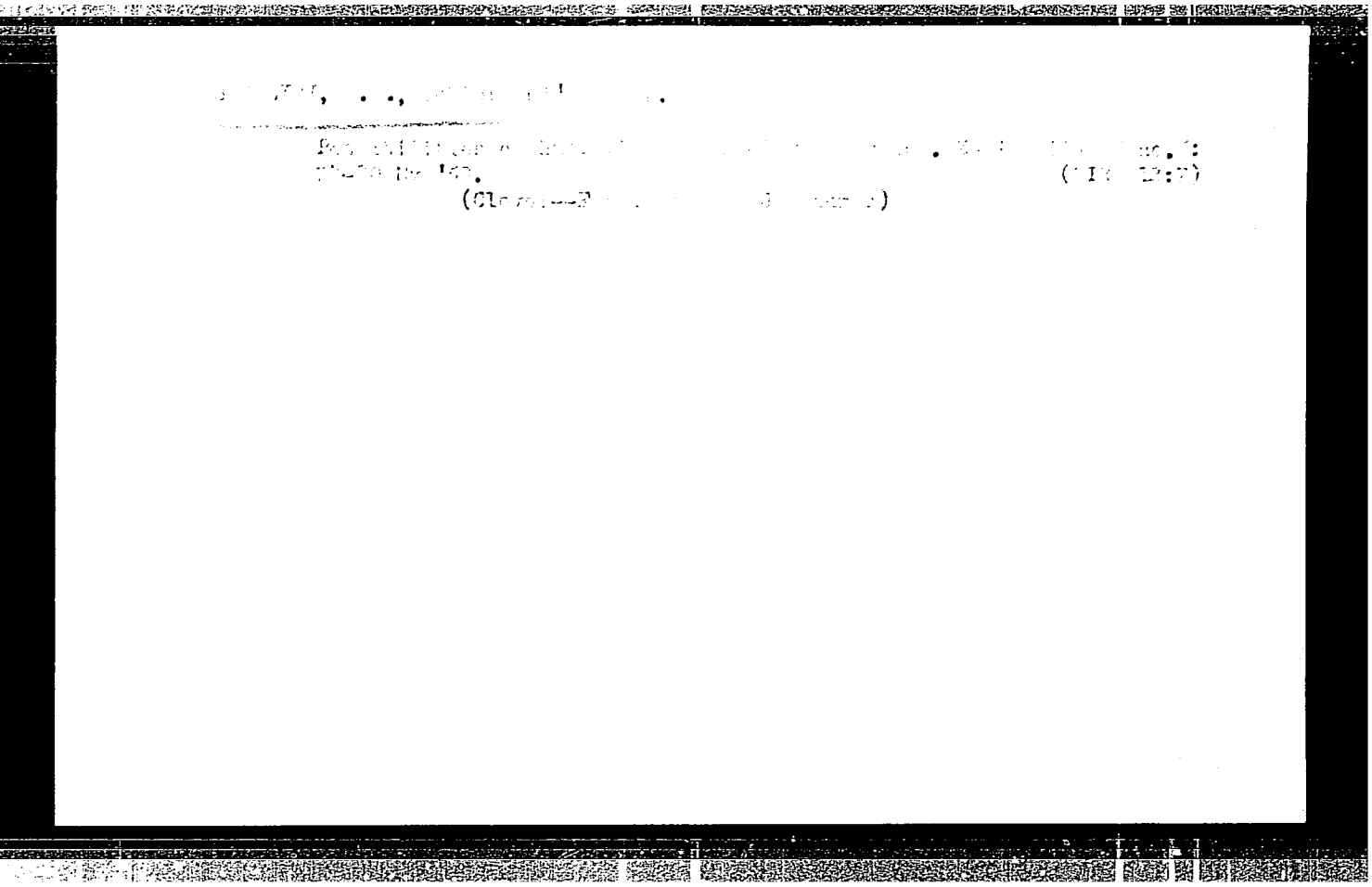
SERGEYEV, P.A.; SHAIN, S.S.; KONSTANTINOVA, A.M.; GERASIMOVA, A.I.; MINYAEVA, O.M.; FEDOSEYEV, B.V.; TULIN, N.S., red.; GOR'KOVA, Z.D., tekhn. red.

[Growing red clover] Kul'tura krasnogo klevera. Moskva, Gos. izd-vo sel'khoz. lit-ry, 1958. 541 p. (MIRA 11:10)
(Clover)

SERGEYEV, P.A., doktor sel'skokhozyaystvennykh nauk.

Methods for improving the stability of red clover yields. Zemledelie 6 no.1:66-72 Ja '58. (MIRA 11:1)

1. Vsesoyuznyy institut kormov imeni V.P. Vil'yamsa.
(Clover)



SERGEYEV, P.A., doktor sel'skokhoz.nauk

Increasing the yield and protein content of clover hay.
Zhivotnovodstvo 22 no.2:83-87 F '60. (MIRA 15:11)
(Clover) (Proteins)

SERGEYEV, P.A., doktor sel'khoz. nauk; POLYAKOVA, V., red.; SHLYK, M., tekhn. red.

[Perennial grasses: clover, timothy grass, alfalfa, bird's foot trefoil] Mnogoletnie travy: klever, timofeevka, liutserna, liadvenets rogatyi. Moskva, Mosk. rabochii, 1961. 29 p.
(Grasses) (MIRA 14:7)

ANTSYSHKIN, S.P.; BOBYLEV, G.V.; GORYACHEV, I.V.; ISACHENKO, Kh.M.; KOVALIN, D.T.; LAVRENT'YEV, V.A.; LITVINOV, I.V.; MUKIN, A.F.; PEREPECHIN, B.M.; PIS'MENNYY, N.R.; REBROVA, G.I.; SERGEYEV, P.A.; SOBINOV, A.M.; FEDOROV, P.F.; FILINOV, N.P.; KHRAMTSOV, N.N.; KAZAKOVA, Ye.D., red.; BALLOD, A.I., tekhn. red.

[Reference book for foresters] Spravochnik lesnichego. Moskva, Gos. izd-vo sel'khoz. lit-ry, 1961. 894 p. (MIRA 14:7)
(Forests and forestry)

MOISEYEV, Nikolay Aleksandrovich; SERGEYEV, P.A., red.; LYAKHOVICH, Ye.A., red. izd-va; KAZANSKAYA, L.I., tekhn. red.

[Calculation and organization of forest exploitation] Raschet i organizatsii pol'zovaniia lesom. Moskva, Goslesbumizdat, 1963. 152 p. (MIRA 17:3)

SERGEYEV, P.A.

Basalt fiber is a prospective heat insulating material in power engineering. Energ. i elektrotekh. prom. no.2:16-17 Ap-Je '63.
(MIRA 16:7)

(Insulation(Heat))

SERGEYEV, P.F., kand. tekhn. nauk

Structure of the electric arc. Vest. AN Kazakh. SSR 21 no.12: 15-26 D '65. (MIRA 18:12)

SERGEYEV, P.F., inzhener.;VASIL'CHENKO, N.I., inzhener.

Performance of blast furnaces operated at 0.8 atm. gas pressure in the charge. Stal' 16 no.11:963-971 N '56. (MLRA 10:1)

1. Novo-Lipetskiy metallurgicheskiy zavod.
(Blast furnaces)

TSYLEV, L.M.; SERGEYEV, P.F.; KAPORULIN, V.N.; MATVEYEV, P.M.;
VASIL'CHENKO, N.V.

Steam and air blowing as intensification of the blast furnace process. Trudy Inst. met. no.8:3-10 '61. (MIRA 14:10)
(Blast furnaces)

CHICHIBABIN, Aleksey Yevgen'yevich. Prinimali uchastiye: REUTOV, O.A.; KITAYGORODSKIY, A.I., prof.; LIBERMAN, A.L., doktor khim. nauk; BAGDASAR'YAN, Kh.S., doktor khim. nauk; PLATE, N.A., kand. khim. nauk; KOLOSOV, M.N., kand. khim. nauk; BOTVINIK, M.M., doktor khim. nauk; STEPANOV, V.M., kand. khim. nauk; MEL'NIKOV, N.N., prof.; DEREVITSKAYA, V.A., doktor khim. nauk; LIBERMAN, A.L., red.; SERGEYEV, P.G. [deceased]; ROMM, R.S., red.; SHPAK, Ye.G., tekhn. red.

[Basic principles of organic chemistry] Osnovnye nachala organicheskoi khimii. Izd.7. Pod red. P.G.Sergeeva i A.L. Libermana. Moskva, Goskhimizdat. Vol.1. 1963. 910 p. (MIRA 16:10)

1. Chlen-korrespondent AN SSSR (for Reutov).
(Chemistry, Organic)

MEL'NIKOV, Valentin Ivanovich, dotu., kand.tekhn.nauk; SERGEYEV, Petr Grigor'yevich, dots., kand.tekhn.nauk; ZHURAVLEV, B.A., red.; SOKOL'SKAYA, Zh.M., red.izd-va; BRATISHKO, L.V., tekhn.red.

[Hauling tree-length logs] Vyvozka lesa v khlystakh. Moskva, Goslesbumizdat, 1957. 98 p. (MIRA 11:2)
(Lumber--Transportation)

MEL'NIKOV, Valentin Ivanovich, dots., kand. tekhn. nauk; SERGEYEV, Petr Georgiyevich, dots., kand. tekhn. nauk; DMITRIYEV, Yuriy Yakovlevich, kand. tekhn. nauk; SELIN, M.F., retsenzent; DOIL'NITSINA, A.G., retsenzent; IONOV, B.D., retsenzent; KISHINSKIY, M.I., otv. red.; PLESKO, Ye.P., red. izdva; GRECHISHCHEVA, V.I., tekhn. red.

[Land transportation of timber and lumber floating]Sukhoputnyi lesotransport i lesosplav. Moskva, Goslesbumizdat, 1962. 314 p. (MIRA 15:12)

1. Petrozavodskiy lesotekhnicheskiy tekhnikum (for Ionov).
(Lumber—Transportation)

SERGEEV, P.G.; RIAZANTSEVA, N.E.; SHROIT, I.G.

The dynamics of pathological processes in experimental measles in monkeys. Acta virol.Engl.Ed.Praha 4 no.5:265-273 S'60.

1. The Measles Laboratory, Ivanovsky Institute of Virology, U.S.S.R., Academy of Medical Sciences, Moscow, and the Moldavian Institute of Epidemiology, Microbiology and Hygiene, Kishinev. (MEASLES exper)

SERGEYEV, P.I., inzh.

Stamping of collar flanges from sheet blanks according to the 1260-54 state standard. Energomashinostroenie 7 no.8:45-46 Ag '61. (MIRA 14:10)

(Sheet-metal work) (Flanges)

SERGEYEV, P.M., kandidat tekhnicheskikh nauk.

Intensified dispatch and receipt of railroad cars in intermediate stations. Zhel.dor.transp. 37 no.12:80-81 D '55. (MLRA 9:5)
(Railroads--Traffic)

SERGEYEV, P.M., kandidat tekhnicheskikh nauk.

Methods of decreasing the idle time of railroad cars in freight stations. Zhel. dor. transp. 38 no.9:54-57 S '56. (MLRA 9:10)

(Railroads--Management)

SERGEYEV, P.M., kand.tekhn.nauk

Innovations in standardizing switching operations in freight yards.
Zhel. dor. transp. 40 no.5:72-74 My '58. (MIRA 11:6)
(Railroads--Switching)

SERGEYEV, P.M., kand.tekhn.nauk

Determining the effectiveness of making up shipper's special destination trains. Zhel.-dor.transp. 43 no.9:48-49 S '61. (MIRA 14:8)

(Railroads--Making up trains)
(Railroads--Freight)

SERGEYEV, P.M., kand.tekhn.nauk

Potentials for the speed increase of consignment trains.
Zhel.dor.transp. 46 no.12:14-16 D '64.
(MIRA 19:1)

[illegible], Rol' mineral'nykh

For a high harvest from all areas under cultivation. Moskva, Sel'khozgiz, 1961. [illegible] p.

1. SERGEYEV, P.N.

2. USSR (600)

4. Agriculture

7. Practice in introducing and operation a grassland system of agriculture. Dost. sel'khoz. no. 5, 1952

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

SERGEYEV, P. N.

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SO: Monthly List of Russian Accessions, Vol. 6 No. 9 December 1953

SERGEYEV, P. N.

Lesnaia taksatsiia [Timber valuation survey]. Izd. 6-e. Moskva, Goslesbumizdat, 1953. 312 p.

SO: Monthly List of Russian Accessions, Vol. 6 No 9 December 1953

SERGEYEV, P. N.

27853. Sergeyev, P. N. Polezashchitnoye lesorazvedeniye v novo - annenskom rayone (stalingr. obl.) les i step' 1953 No. 1, s.63 - 69

SO: Letopis, Zhurnal'n kh S_tatey, Vol. 37, 1949

SERGEYEV, P.N.

P.N. Sergeyev, Candidate in Economic Sciences, Novo-Annenskiy Rayon / The Novo-Annenskiy Rayon/, third edition, revised and enlarged, Sel'khozgiz, 23 sheets.

Describes the experience of the campaign by the kolkhozes and MTS's of the Rayon to expand the public farming of the kolkhozes, for higher crop yields, for growth in livestock raising.

Intended for kolkhoz leaders, agricultural specialists and workers of agricultural organs. 1954 - 3.50 pp

SO: U-6472, 15 Nov 1954

SERGEYEV, P.N., kand.ekon.nauk, sostavitel'; GRIGOR'YEVA, A.I., red.; SOKOLOVA, N.N., tekhn.red.

[For high crop yields in the Southeast; from the experience of leading farms in Stalingrad Province] Za vysokie urozhai na iugo-vostoke; iz opyta peredovykh khoziaistv Stalingradskoi oblasti. Moskva, Gos. izd-vo sel'khoz. lit-ry, 1958. 191 p. (MIRA 12:1)

(Stalingrad Province--Agriculture)

SERGEYEV, Pavel Nikanorovich, kand.ekonom.nauk, Geroy Sotsialisticheskogo Truda; KUKLIN, P.V., red.; BURYANOV, N.S., tekhn.red.

[Farming practices on the "Deminskii" Collective Farm and their economic effectiveness] Sistema zemledeliia kolkhoza "Deminskii" i ee ekonomicheskaia effektivnost'. Stalingrad, Stalingradskoe knizhnoe izd-vo, 1960. 56 p. (MIRA 14:3)
(Novo-Annenskiy District--Agriculture)

SERGEYEV, P. P.

[For higher winter crop yields] Za vysokii urozhai ozimykh kul'tur. [Gor'kii] Gor'kovskoe obl. gos. izd-vo, 1952. 36 p. (MLRA 9:9)
(Grain)

SHVETSOV, I. .

Tobacco Manufacture and Trade

Possibility of converting eastern tobacco factories to a year-round work schedule.
Tabak 13 no. 1, 1952.

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SERGEYEV, P. P.

"On the Pharmacology of Cardiotrast."

report presented at the 145th meeting of the Pharmacology and Toxicology Section of the Moscow Society of Physiologists, Biochemists and Pharmacologists, 25 Feb. 1958.

II Moscow Medical Institute

(Farmakologiia i Toksikologiia, 21, no 6, Nov-Dec 58, p. 616)

SERGEYEV, Pavel Sergeyevich; YERMAKOV, A.I., redaktor; MISHKEVICH, G.I., redaktor; KAMOLOVA, V.M., tekhnicheskiy redaktor.

[Founding work in ship building] Formovochnoe delo v sudostroenii. Leningrad, Gos.soiuznoe izd-vo sudostroitel'noi promysh., 1955. 167 p. (MLRA 9:4)

(Molding (Founding)) (Shipbuilding)

SERGEYEV, PAVEL SERGEYEVICH

PHASE II - BOOK REVIEW EV-2

Sergeyev, Pavel Sergeyevich

Shtampovka zhidkikh tsvetnykh metallov i splavov (Compression Molding of Molten Nonferrous Metals and Alloys) Leningrad, Sudpromgiz, 1957. 86 p. 3,000 copies printed.

Editors: Responsible Ed.: Tsyganko, L.Z.; Ed.: Mishkevich, G.I.; Technical Ed.: Levochkina, L.I.; Proofreader: Ryzhikova, M.G.

INTRODUCTION. The method of "compression molding" of molten metals as described in this book is claimed by the Soviets as one of their latest developments in the field of pressing and casting nonferrous metals, especially zinc, copper and aluminum alloys. The author states that this method requires very little in the way of special equipment to produce castings of complex configuration with better mechanical properties, greater dimensional accuracy and better surface quality than could be obtained by other casting methods. It is further claimed that "compression molding" combines the advantages of forging and casting and presents no serious drawbacks. Compression castings,

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because of their great density, are used in many ways but have found a special application in the high-pressure pneumatic and hydraulic systems of Soviet naval vessels. The "compression molding" method is also used in the manufacture of turbine blades, and would lend itself well to the production of cylindrical and conical shapes, such as cones for armor-piercing shaped charges; it might also find an application in the casting of aircraft control components. The principles involved in "compression molding" of molten metals are well known as this method is similar to that used in compression molding of thermosetting plastics. For this reason the term "compression molding" was used to translate the Russian term "shtampovka" [literally: pressing (of molten metals)]. According to available information compression molding of molten metals has not so far been used in this country. From the above it is obvious that this casting method with its reputed numerous advantages and applications may well be of military importance. The contents of this book are reviewed below chapter by chapter.

Ch. I. Properties of Nonferrous Alloys

In this chapter the author deals with the properties of alloys used in casting: flowability, shrinkage, liquation, gas absorption and oxidation. He discusses at length the problems connected with

SERGIYEV, P. G., GOVAINOV, F. A. and VINOGRADOV, N. V.

"Designing Electrical Machines," Gosenergoizdat, 591 pp, 1950. Authorized as a textbook for electromechanical and technical schools.

SERGEYEV, P.S.

KASATKIN, Aleksandr Sergeyevich, 1899- , PEREKALIN, M.A.; SERGEYEV, P.S.

[Electric engineering] Elektrotekhnika. Izd.5., ispr. Moskva, Gos. energ. izd-vo, 1953. 432 p. (MLRA 7:6)
(Electric engineering)

SERGEYEV, Petr Sergeyevich; YEZHKOV, V.V., redaktor; VORONIN, K.P., tekhnicheskiy redaktor

[Electric machinery] Elektricheskie mashiny. Moskva, Gos. energ. izd-vo, 1955. 256 p. (MLRA 8:7)
(Electric machinery)

VINOGRADOV, Nikolay Vladimirovich; GORYAINOV, Fedor Alekseyevich; SERGEYEV, Petr Sergeyevich; ABRAMOV, A.I., redaktor; FRIDKIN, L.M., tekhnicheskiy redaktor; MEDVEDEV, L.M., tekhnicheskiy redaktor

[Designing electric machinery] Proektirovanie elektricheskikh mashin. Pod obshchei red. P.S.Sergeeva. Moskva, Gos. energ. izd-vo, 1956. 504 p. (MLRA 10:1)
(Electric machinery)

SERGEYEV, P.S., kandidat tekhnicheskikh nauk, dotsent.

Review of K.P. Kovacs' book "Operation of asynchronous machines." (German edition). P.S. Sergeev. Elektrichestvo no.10:95-96 O '57. (MLRA 10:9)

1. Moskovskiy energeticheskiy institut.
(Electric motors, Induction) (Kovacs, K.P.)

TELAAT, M.Ye. [Talaat, M.E.]; TALALOV, I.I., inzh. [translator]; SERGEYEV, P.S., red.; LARIONOV, G.Ye., tekhn.red.

[New approach to the calculation of synchronous machine reactances] Novyi podkhod k opredeleniiu induktivnykh soprotivlenii sinkhronnoi mashiny. Moskva, Gos.energ.izd-vo 1959. 95 p. Translated from the English. (MIRA 13:7)
(Electric machinery, Synchronous)

SERGEYEV, Petr Sergeyevich; ANDRIANOV, V.N., prof., retsenzent; ABRAMOV, A.I., red.; LARIONOV, G.Ye., tekhn. red.

[Electric machinery] Elektricheskie mashiny. Moskva, Gosenergoizdat, 1962. 279 p. (MIRA 15:6)
(Electric machinery)

SERGEYEV, Petr Sergeyevich; ZEMSKIKH, P.V., red.

[Design of turbogenerators] Proektirovanie turbogeneratorov; uchebnoe posobie. Moskva, Mosk. energ.in-t, 1961. 108 p. (MIRA 16:6)

(Turbogenerators)

SPEKTOROVA, Sarra Izrailevna; LITINSKIY, Arnol'd Mikhaylovich; KIREYEV, Sergey Antonovich; SERGEYEV, P.S., inzhener, redaktor; MISHKEVICH, G.I., redaktor; KAMOLOVA, V.M., tekhnicheskiy redaktor.

[Shell mold casting] Lit'e v obolochkovye formy. Leningrad, Ges. soiuznoe izd-vo sudostroit. promyshl., 1955. 116 p. (MLRA 9:5)
(Shell molding (Casting))

SERGIYEV, P.V.

Effect of cardiotrast on tissue and cellular respiration. Khirurgiia 33 no.8:93-94 Ag '57. (MIRA 11:4)

1. Iz kafedry farmakologii (zav.-deystvitel'nyy chlen AMN SSSR zasluzhennyy deyatel' nauki prof. V.I. Skvortsov) II Moskovskogo gosudarstvennogo meditsinskogo instituta imeni Stalina.

(CONTRAST MEDIA, eff.
3,5-diiode-4-exo-1-pyridine acetamido-2,2-diethanol, on tissue resp.)
(METABOLISM, TISSUE, eff. of drugs on same)

SERGEYEV, P. V.: Master Med Sci (diss) -- "A pharmacological investigation of the contrast preparation 'kardiotrast'". Moscow, 1959. 11 pp (Second Moscow State Med Inst im N. I. Pirogov), 250 copies (KL, No 1, 1959, 124)

SERGEYEV, P.V.

Combined effects of glucose and cardiotrast on tissue respiration in various organs of white rats. Farm.i toks. 23 no.6:532-535 N-D '60. (MIRA 14:3)

1. Kafedra farmakologii (zav. prof. V.V.Vasil'yeva) II Moskovskogo gosudarstvennogo meditsinskogo instituta imeni N.I.Pirogova.
(GLUCOSE) (CONTRAST MEDIA)
(IODIZED OILS) (METABOLISM)

SERGEYEV, P.V.

Effect of contrast media on the coronary blood flow rate.
Farm. i toks. 26 no.5:594-597 S-O '63. (MIRA 17:8)

1. Kafedra farmakologii (zav. - prof. V.V. Vasil'yeva) II Moskovskogo meditsinskogo instituta imeni N.I. Pirogova.

SHAKOV, P. V.

Electrolysis

Some problems of electric supply of zinc electrolytic tanks, Prom. energ. 11, No. 2, 1953.

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

SERGEYEV, P.V.

Current supply diagram for zinc electrolytic bath. Trudy Alt.GMMII AN Kazakh.SSR 1:107-120 '54. (MLRA 10:1)
(Zinc--Electrometallurgy)

SERGEYEV, P. V.

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Electrolysis of zinc with currents other than direct current. P. V. Sergeev. *Trudy Alt'sk. Gorno-Met. Nauch.-Issledovatel. Inst., Akad. Nauk Kazakh. S.S.R.* 1, 121-6(1954).—A discussion of single-, two-, and three-phase pulsating currents and their use in electrolysis of Zn.
E. M. Elkin

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SERGEYEV, P.V.

USSR/Physics - Electrolysis

Card 1/1 Pub. 123 - 9/15

Authors : Sergeev, P. V.

Title : Distribution of the voltage drop in a zinc electrolytic-bath

Periodical : Vest. AN Kaz. SSR 11/10, 83-90, Oct 1954

Abstract : A new theory for the explanation of the process that takes place in a zinc electrolyte is presented. Previously, the electrolytic process was explained by the potential differences at the electrodes; now, however, the same process is explained by the voltage drop in the space near the electrodes (not at the electrodes). Results of experiments, presented in a table, show the reliability of the new theory. The results also show a resemblance between voltage drop in an electrolyte and that in a glow discharge-tube, only the role of the electrons in the glow discharge tube is taken by the protons (H) in the electrolyte. Two USSR references (1937 and 1949). Table; diagrams.

Institution : .....
Submitted : .....

SERGEYEV, P.V.

Automatic control in the production of zinc. TSvet.met. 27 no.4:14-15 Jl-Ag '54. (MIRA 10:10)
(Automatic control) (Zinc--Electrometallurgy)

SERGEYEV, P.V.

Leakage currents in the electrolysis of zinc. TSvet.met. 27 no.6:38-43 N-D '54. (MIRA 10:10)
(Zinc--Electrometallurgy) (Electric currents, Leakage)

KALLISTOV, P.L.; ZENKOV, D.A.; PROKOF'YEV, A.P. Prinimali uchastiye: BOGDANOV, F.M.; BORZUNOV, V.M.; BURYBLIN, A.V.; DROZDOV, M.D.; YEROFEYEV, B.N.;KOMISSAROV. A.K.; KOGAN, I.D.; LYUBIMOV, I.A.; MIRLIN, R.Ye.; ROKHLIN, M.I.; SERGEYEV, P.V.; SEMENOV, A.D.; FROLOV, V.V.; NEMANOVA, G.F., red. izd-va; GORDIYENKO, Ye.B., tekhn. red.

[Instructions for applying the classification of reserves to primary gold deposits] Instruktsiia po primeneniiu klassifikatsii zapasov k korennym mestorozhdeniiam zolota. Moskva, Gos. nauchno-tekhn.izd-vo lit-ry po geol. i okhrane nedr, 1955. 46 p. (MIRA 15:2)

1. Russia (1923- U.S.S.R.) Gosudarstvennaya komissiya po zapasam poleznykh iskopayemykh.
(Gold ores---Classification)

SERGEYEV, P.V.

Power supply circuit requirements for zinc electrolytic cells.
Trudy Alt.GMNII no.2:129-145 '55. (MLRA 10:1)
(Zinc--Electrometallurgy)

SOV/112-57-6-12486

Translation from: Referativnyy zhurnal, Elektrotekhnika, 1957, Nr 6, pp 126-127 (USSR)

AUTHOR: Abdeyev, M. A., Sergeyev, P. V., Ablanov, A. D., Platonov, G. F.

TITLE: Prospects of Using Electrical Energy for Nonferrous-Metal Production in Altay (Perspektivy vnedreniya elektroenergii v proizvodstvo tsvetnykh metallov v Altaye)

PERIODICAL: Vestn. AN KazSSR, 1956, Nr 2, pp 59-66

ABSTRACT: The low cost of electric energy at the Ust'-Kamenogorsk and Bukhtarma Hydroelectric stations makes it economical to use electric energy in the nonferrous metallurgy of the ore-producing Altay area. At present, development and testing of electric furnaces for melting lead agglomerates, electrically heated settlers, refining boilers, etc., are being conducted. Induction electric furnaces, which have a number of advantages over resistance furnaces (lower thermal inertia, lower heat loss through the masonry) are being planned for the Ust'-Kamenogorsk Combine. The use of cheap electrical

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SERGEYEV, P.V., kand. tekhn. nauk.

Volt-ampere characteristics of d.c. and a.c. electric arcs. Elektrichestvo no.12:25-28 D '56. (MIRA 11:3)

1. Gorno-metallurgicheskiy nauchno-issledovatel'skiy institut AN Kazakhskoy SSR.

(Electric arc)

SERGEYEV, P.V.; PLATONOV, G.F.; PANINA, M.I.; PRON'KIN, V.F.

Electric preheating of boilers for the refining of lead.
TSvet.met.29 no.6:31-34 Je '56. (MLRA 9:9)
(Lead--Electrometallurgy)

137-1958-2-2420

Translation from: Referativnyy zhurnal, Metallurgiya, 1958, Nr 2, p 31 (USSR)

AUTHOR: Sergeyev, P.V.

TITLE: Determination of the Basic Electric Parameters of High-Slag-Volume Ore Furnaces (Opredeleniye osnovnykh elektricheskikh parametrov rudnotermicheskikh pechey s bol'shim ob"yemom shlaka)

PERIODICAL: Tr. Altaysk. gornometallurg. n.-i. in-ta, 1957, Vol 4, pp 96-118

ABSTRACT: New methods are proposed for determining the parameters of high-slag-volume ore furnaces; the methods require that such furnaces be viewed not so much as arc furnaces but as resistance furnaces. The validity of this point of view is supported by examples, data acquired experimentally, which demonstrate that these furnaces possess an eletric arc only during the first part of the heating-up period, but that later on, with the formation of a thick layer of red-hot slag, the arc vanishes and the current from the electrodes passes through the slag, which then becomes a resistance heating element. The data cited indicate the possibility of raising the efficiency of the furnaces by increasing electrode diameters, immersing the electrodes more deeply, and upping the current density.

Ya.K.

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137-58-4-6851

Translation from Referativnyy zhurnal, Metallurgiya, 1958 Nr 4 p 76 (USSR)

AUTHOR: Sergeyev, P.V

TITLE Relationship Between Zinc Electrolyzer Voltage and Electrode Current Density (Zavisimost' napryazheniya elektrolizera tsinka ot plotnosti toka elektrodov)

PERIODICAL Tr. Altaysk. gornometallurg. n.-i. in-ta, 1957 Vol 4 pp 152-159

ABSTRACT Mathematical expressions for a volt-ampere relationship for analysis of the working conditions of Zn electrolyzers are presented. Tafel's equation ($\eta = a + b \log D$) was the principal source from which the volt-ampere curve equations were developed.

N. P.

1 Zinc electrolyzers--Work functions 2 Volt--Ampere --Applications--Analysis

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SERGEYEV, P.V.

Some problems of electric steam boiler performance. Trudy Alt. GMNII AN Kazakh. SSR no.5:134-138 '57. (MIRA 11:4)
(Boilers)

ZALESSKIY, A.M., doktor tekhn.nauk; SERGEYEV, P.V., kand.tekhn.nauk.

Volt-ampere characteristics of d.c. and a.c. electric arcs.
Elektrichestvo no.12:76-77 D '57. (MIRA 10:12)

1.Leningradskiy politekhnicheskiy institut im. Kalinina (for Zalesskiy). 2.Gorno-metallurgicheskiy nauchno-issledovatel'skiy institut AN Kazakhskoy SSSR.
(Electric arc)

SERGEYEV, P.V., kandidat [illegible] nauk.

Determining the [illegible] characteristics of ore-roasting furnaces. From. energ., [illegible] My '57. (MLRA 10:6)
[illegible] electric furnaces)

SERGEYEV, P.V

Overvoltage of hydrogen evolution. P. V. Sergeev. *Zhur. Priklad. Khim.* 30, 1252-5(1957).—The const. a in Tafel's equation $\eta_H = a + b \log$ c.d., where η_H is the potential of H evolution on a given metal, is equated to $a = U_B - U_D$, where U_B is the potential at a c.d. of 1 amp./sq. m. on a cathode of a specific metal and anodes of Pb or platinized Pt and U_D is the decompn. potential of aq. H_2SO_4 (1.07 v.). The exptl. values of a obtained with Zn, Cd, Co, Fe, Al, and Cu are in agreement (±5%) with the values obtained by Pecherskaya, *et al.* (*C.A.* 45, 478*a*). The const. b can be similarly detd.

I. Bencowitz

SOV/136-58-6-14/21

AUTHOR: Sergeyev, P.V.

TITLE: On the Problem of Electric Smelting in the Metallurgy of Lead and Zinc (K voprosu elektroplavki v metallurgii svintsa i tsinka)

PERIODICAL: Tsvetnyye Metally, Nr 6, pp 83 - 85 (USSR) 1958

ABSTRACT: The author disputes some of the claims and recommendations made for electric smelting in lead and zinc production by N.N. Kostin (Tsvetnyye Metally, 1958, Nr 1). He maintains that electric smelting fails to cater for the polymetallic character of the ores used, is unnecessarily expensive in energy and is too low in productivity and expensive in adoption in preference to shaft smelting. Nor does he admit Kostin's argument that because at some shaft-process lead works lead poisoning occurs, electric smelting should be adopted there, pointing out that at well-designed shaft-process works there is no poisoning. The only suggestion of Kostin that the author accepts is that electric furnaces for smelting lead sinter should be built at the Leninogorsk Works to provide operating data. He favours the conversion of the Belovo Works to electro-thermic methods and the use of electric furnaces for treating zinc-containing slags from old dumps. An editorial note

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SERGEYEV, P.V.

Electric arc theory. Trudy Alt.GMNII AN Kazakh.SSR 6:204-217 '58. (MIRA 12:1)

(Electric arc)

82462

9.3150 S/112/60/000/006/005/032

Translation from: Referativnyy zhurnal, Elektrotekhnika, 1960, No. 6, p. 115, # 2.4665

AUTHOR: Sergeyev, P. V.

TITLE: Interconnection of Electric and Thermal Phenomena in the Electric Arc; Development of the Arc Column (Under Discussion)

PERIODICAL: Tr. Altaysk. gornometallurg. n.-i. in-ta, 1958, No. 7, pp. 199-206

TEXT: Characteristics of the electric arc depending on the character of heat emission of the arc column are considered. It is shown that changes of volt-ampere characteristics of the electric arc are explained by changes of heat emission processes. With a current increase the electric arc develops in such direction that the power, produced in the arc per unit of the maximum force contracting the electric arc owing to its own magnetic field, decreases at the rate of arc current increase. On the horizontal part of the volt-ampere characteristic it assumes its constant and minimum value.

N. N. T.

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AUTHOR: Sergeyev, P.V. (Candidate of Technical Science) SOV/110-58-9-

TITLE: Causes of Electric Current Pulsation in the Melting Channels of Induction Furnaces with Steel Cores (Prichiny pul'satsiy elektricheskogo toka v kanalakh indukstsionnykh pechey s serdechnikom iz elektrotekhnich-eskoy stali)

PERIODICAL: Vestnik Elektropromyshlennosti, 1958, Nr 9, pp 61-64 (USSR)

ABSTRACT: Steel-cored induction furnaces are becoming widely used for melting non-ferrous metals. An important phenomenon in these furnaces is current pulsation when the current in the melting channel exceeds a critical value. It is usually assumed that this is due to magnetic compressive forces acting on the current-carrying metal; but the matter deserves further examination. This article describes experiments which suggest that current pulsations are almost certainly due to vaporisation of the metal in the channel. Theoretical justification for this view is first given, the vapor pressure values for zinc and copper at various temperatures being tabulated. It is concluded that current pulsation is more likely to occur when melting zinc than when melting copper, which is indeed the

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8(0) SOV/105-58-11-21/28

AUTHORS: 1) Zalesskiy, A. M., Professor (Leningrad)
2) Sergeyev, P. V., (Town of Ust'-Kamenogorsk)
3) Gusa, V., Tsigelka, Ya. (Czechoslovakia)
4) Aronzon, N. Z., Candidate of Technical Sciences

TITLE: On a Theoretical Motivation of the Principle of Minimum Arc Voltage (O teoreticheskom obosnovanii printsipa minimuma napryazheniya dugi)

PERIODICAL: Elektrichestvo, 1958, Nr 11, pp 85-88 (USSR)

ABSTRACT: This is a comment on the article by N. Z. Aronzon, published in Elektrichestvo, 1958, Nr 3, pp 56-60. Aronzon attempts to prove that the assertion which is to the point that the "minimum principle" of arc voltage as advanced by Shteyenbek does not represent an exact law, but only an approximative rule is erroneous. The solution presented by Aronzon is a substantiation of just the opposite truth. He showed that the exact solution by no means validates this principle. This has moreover been shown by less stringent theoretical derivations and by many experiments. Aronzon wants to prove the correctness of this principle under any circumstances. Hence in some

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APPROVED FOR RELEASE: 08/23/2000 CIA-RD

SOV/110-58-9-15/20

AUTHOR: Sergeyev, P.V. (Candidate of Technical Science)

TITLE: Causes of Electric Current Pulsation in the Melting Channels of Induction Furnaces with Steel Cores (Prichiny pul'satsiy elektricheskogo toka v plavil'nykh kanalakh induktsionnykh pechey s serdechnikom iz elektrotekhnicheskoy stali)

PERIODICAL: Vestnik Elektropromyshlennosti, 1958, Nr 9, pp 61-64 (USSR)

ABSTRACT: Steel-cored induction furnaces are becoming widely used for melting non-ferrous metals. An important phenomenon in these furnaces is current pulsation when the current in the melting channel exceeds a critical value. It is usually assumed that this is due to magnetic compressive forces acting on the current-carrying metal, but the matter deserves further examination. This article describes experiments which suggest that current pulsations are almost certainly due to vaporisation of the metal in the channel. Theoretical justification for this view is first given, the vapor pressure values for zinc and copper at various temperatures being tabulated. It is concluded that current pulsation is more likely to occur when melting zinc than when melting copper, which is indeed the

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Causes of Electric Current Pulsation in the Melting Channels of Induction Furnaces with Steel Cores

case. A number of tests were made to decide the point. In the first instance, salt water was used as a liquid substance and was heated in a glass tube, as shown in Fig 1. Current pulsation was in this case associated with visible formation of steam. Tests were then made with molten zinc, using the equipment illustrated schematically in Fig 2. A critical current is calculated on the assumption that the effect is a magnetic one. The magnetic effect should occur instantaneously when this current is reached. The tests showed that much greater currents than the calculated critical value could be applied for a short time without causing pulsation and, conversely, that values less than the calculated critical value could cause pulsation if applied long enough. The latter effect was also found if the quartz tube in which the melting took place was thermally insulated, whereas cooling with compressed air had the opposite effect. All these facts indicate that current pulsation is caused by vapourisation of metal. Similar tests were then made with cadmium. When air cooling was used, pulsation occurred at

Causes of Electric Current Pulsation in the Melting Channels of Induction Furnaces with Steel Cores

a lower current with cadmium than with zinc. This cannot be explained on the magnetic hypothesis but is easily explained on the thermal one. Similar tests made with tin yielded to similar evidence. It is concluded that although magnetic compressive forces undoubtedly make a contribution to current pulsation in furnaces, the basic cause is indoubtedly vapourisation of the metal. This leads to important consequences in the practical design of induction furnaces.

There are 1 table, 2 figures and 5 Soviet references

SUBMITTED: October 21, 1957

1. Induction furnaces--Performance 2. Electric currents--Performance
3. Metals--Electrical factors 4. Mathematics--Applications

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8(0) SOV/105-58-11-21/28

AUTHORS: 1) Zalesskiy, A. M., Professor (Leningrad)
2) Sergeyev, P. V., (Town of Ust'-Kamenogorsk)
3) Gusa, V., Tsigelka, Ya. (Czechoslovakia)
4) Aronzon, N. Z., Candidate of Technical Sciences

TITLE: On a Theoretical Motivation of the Principle of Minimum Arc Voltage (O teoreticheskom obosnovanii printsipa minimuma napryazheniya dugi)

PERIODICAL: Elektrichestvo, 1958, Nr 11, pp 85-88 (USSR)

ABSTRACT: This is a comment on the article by N. Z. Aronzon, published in Elektrichestvo, 1958, Nr 3, pp 56-60. Aronzon attempts to prove that the assertion which is to the point that the "minimum principle" of arc voltage as advanced by Shteyenbek does not represent an exact law, but only an approximative rule is erroneous. The solution presented by Aronzon is a substantiation of just the opposite truth. He showed that the exact solution by no means validates this principle. This has moreover been shown by less stringent theoretical derivations and by many experiments. Aronzon wants to prove the correctness of this principle under any circumstances. Hence in some

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special cases he introduces evidently unreal assumptions in order to arrive at a substantiation of the "minimum principle". These assumptions are subjected to a detailed critical review. The summary is to the point that the "minimum principle" is no regularity corresponding to the basic nature of facts, but only a rough approximation theory, which is to be discarded. There is no reason to doubt the applicability of the principle of minimum resistance to the electric arc. In a general form the principle of least resistance and of maximum power dissipation can be formulated as follows: All processes in nature proceed in the direction of least resistance to the transformation of energy, or if termed in other words, in the direction of maximum energy consumption. The viewpoint adopted by Aronzon is correct, but he limits his investigation to the special case of the energy balance in the arc. His conclusions do not apply to a power arc. Zalesskiy gives a very indeterminate assertion, that the incorrectness of the minimum principle has been proved long ago. He should have given an exact reference to the paper including this statement. Rompe and Vaytsel' suppose that the minimum principle in application to a stabilized arc proves to hold only due to purely acciden-

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tal circumstances. In fact it could successfully be proved that this circumstance is not accidental. It follows from the properties of the differential equation describing the arc behaviour. The retorts given by Zalesskiy are studied and then shown to be incorrect. Emphasis is repeatedly placed upon the fact that no method of an accurate calculation has hitherto been developed for the calculation of an arc with preponderating volume cooling and that thus the minimum principle up till now constitutes the only means of calculating such arcs. The fact that this principle applies to this case is substantiated not only in the papers by Kirshteyn and Koppel'man, but also by the well known circumstance that the voltage gradient across the arc is independent of the current.(This latter statement is commented in the book by Zalesskiy as follows: "This result is very interesting and is confirmed by experimental information.") Sergeyev in his comment does not touch the minimum principle itself. He raises the question in what direction the unstable and unsteady arc proceeds to a stable and steady state operation, and he maintains that this always implies a transition to a state with a maximum

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energy dissipation. This assumption is not true, as, for example, an arc will always try to contract to minimum length, which corresponds to a minimum of energy dissipation. The remarks of Gusa and Tsigelka concerning power arcs are absolutely correct. There are 2 figures and 2 references.

ASSOCIATION: 4) Energeticheskiy institut imeni Krzhizhanovskogo AN SSSR (Institute of Power Engineering imeni Krzhizhanovskiy, AS USSR)

SERGEYEV, P.V.; PLATONOV, G.F.

Establishing efficient parameters for the work of electrically heated mixers. Vest. AN Kazakh.SSR 14 no.9:37-47 S '58.
(Electric furnaces) (MIRA 11:11)

SERGEYEV, P.V., kand.tekhn.nauk

Reasons for current pulsation in the melting channel of induction furnaces equipped with a core of electric sheets. Vest. elektroprom. 29 no.9:61-64 S '58. (MIRA 11:10)
(Induction heating)

SERGEYEV, P.V.

Electric smelting in the metallurgy of lead and zinc. TSvet. met. 31 no. 6:83-85 Je '58. (MIRA 11:7)
(Lead--Electrometallurgy)
(Zinc--Electrometallurgy)

SOV/105-59-7-11/30

8(5)
AUTHOR: Sergeyev, P. V., Candidate of Technical Sciences

TITLE: On the Calculation of the Parameters of Ore-melting Furnaces (K raschetu parametrov rudnotermicheskikh elektropechey)

PERIODICAL: Elektrichestvo, 1959, Nr 7, pp 45 - 48 (USSR)

ABSTRACT: In one of the author's earlier papers (Ref 1) the rather simple analytical relations checked in practice were determined with the aid of a simplified equivalent circuit of an electric furnace installation. These relations give the connections between all electric main parameters of the electric furnace and the ratio of the bath resistance of this furnace of the quantity m. m is the resistance of the installation. If the electric furnace and the resistance of one phase are expressed by m or by the bath resistance, it is possible, in a number of cases, to bring the electric parameters of the electric furnace into connection with the geometric dimensions of the bath and the metallurgical features of melting. Formulas (1)-(7) (Ref 1) are written down for the calculation of the electric characteristics, from which it may be seen that all electric main characteristics of the installation

...n the case of a
...(8). m should be
...ording to the values obtained
...aracteristics is selected, and
...eristics the degree of efficiency and cos φ
...r relative nominal values of the electric
...e determined. The method used here may be employed both

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depend only on m and cos φ_k (efficiency coefficient of the installation in the case of a short circuit). Therefore these characteristics may be developed in diagram form as relative units. Figure 1 shows a diagram for universal type-characteristics at cos φ_k = 0.3. The using of universal type characteristics considerably facilitates investigation of the electric furnaces in operation and simplified planning them. When planning, the actual output of the furnace is known, and a family of type characteristics is selected. For the electric degree of efficiency and cos φ values of 0.9 to 0.95 are aimed at. In order to be able to select the suitable family of type characteristics, it is necessary, as seen from formulas (1) to (7), to know cos φ_k of the respective furnace installation. The performance coefficient in the case of a short circuit can be calculated from formula (8). m should be selected to be equal to 2 to 3.5. According to the values obtained of cos φ_k, the family of type characteristics is selected, and according to these characteristics the degree of efficiency and cos φ as well as all other relative nominal values of the electric quantities are determined. The method used here may be employed both

for ore-melting and for light-arc electric furnaces. The absolute values of amperage and voltage can, however, not be determined from the type characteristics chosen. Therefore, the resistance R_B of the furnace bath (or, in the case of light-arc furnaces the light arc resistance) must next be determined. This is done by means of the formula (9). To the resistance determined by means of this formula, it is necessary to add the resistance of the electrodes proper (Ref 2), after which the voltage and the amperage of the furnace can be calculated. From formula (13) the electrode diameter may be determined. After determining the absolute values of voltage and amperage of the planned furnace as well as of the furnace-bath resistance, the parameters of the supply circuit must be determined. There are 2 figures and 8 Soviet references.

ASSOCIATION: Altayskiy gornometallurgicheskiy nauchno-issledovatel'skiy institut AN Kazakhskoy SSR (Altay Scientific Research Institute for Mining and Metallurgical Engineering, of the AS, Kazakhskaya SSR)

SUBMITTED: March 10, 1959