The Movement of the Gas Contour in the Exploitation of Deposits of Natural Gas.

$$Q = \frac{k_o}{\mu} m \frac{\partial p(\ell, t)}{\partial x} = \frac{amn\beta}{\sqrt{at}} = \frac{Q_{mean}}{2}$$

where m = strength of strata, Q_{mean} = mean outflow of gas in time

(d) Time of discharge of gas from layer

$$T = \frac{\ell_o^2}{4\beta^2 a} \qquad (12)$$

For the general case of three-dimensional motion, Eq.(4) must be rewritten into three equations for the x , y and z direction, but the solution is mathematically difficult. The cases of cylindrical and spherical symmetry are not simple, and the case of a gas with non-zero viscosity is also difficult. For the pressure of gas in the layer, the non-dimensional problem may be solved, not assuming that the viscosity of the gas is small compared with that of the liquid. The equations

24-58-3-33/38

The Movement of the Gas Contour in the Exploitation of Deposits of Natural Gas.

of motion follow Eq.(1) and the linearised equations of Leybenzon (Ref.2). The flow of gas and movement of the boundary may be calculated from work on fluid flow in a porous medium (Ref.5). (Complete Translation). There is 1 graph and 5 Soviet references.

SUBMITTED: March 30, 1957.

Card 6/6 1. Natural gas--Movement--Mathematical analysis

KORZHETSKIY, A.P., inzh.; VERIGIN, N.N., doktor tekhn.nauk, prof.; BINDEMAN, N.N., kand.geol-mineral.nauk; BOCHEVER, F.M., kand.tekhn.nauk; GRIGOR'YEV, V.M., kand.tekhn.nauk; HEDRIGA, V.P., kand.tekhn.nauk; SHESTAKOV, V.M., kand.tekhn.nauk.

Opinions of the book "Determining water inflow to foundation pits and designing drainage installations" by V.V. Kurilenko. Reviewed by A.P. Korzhetskii and others. Gidr. stroi. 27 no.4:61-64 Ap '58. (MIRA 11:9)

(Soil percolation) (Drainage) (Kurilenko, V.V.).

AUTHOR: Verigin, N. N. SOV/76-32-9-23/46

TITLE: Diffusion at the Surface of a Solid Body Immersed in a Liquid (Diffuziya u poverkhnosti tverdogo tela, nakhodyashchegosya v zhidkosti)

PERIODICAL: Zhurnal fizicheskoy khimii, 1958, Vol 32, Nr 9, pp 2097 - 2106 (USSR)

ABSTRACT: The corrosion on the surface of a non-homogeneous solid body such as concrete or rock in a liquid were theoretically examined. Two limiting cases were taken into consideration: 1) Without convection of the liquid (pure diffusion) and 2) convection along the surface with high speed (ideal convection). In working out that problem the author defines: ξ - the volume share of soluble substance; η - coefficient of retardation of the diffusion D in the zone of corrosion depending upon the porosity of the substance; P - the ratio of the difference of the saturation concentration and the initial concentration to the specific weight of the solid

Card 1/2

Diffusion at the Surface of a Solid Body Immersed in a Liquid SOV/76-32-9-23/46

($P = \frac{c_m - c_o}{\delta}$; c_m - saturation concentration, c_o - initial concentration, δ - specific weight). In case of pure diffusion there holds for $\xi = 1, \eta = 1$ and $\frac{P}{\eta \cdot \xi^2} = 0{,}04$, the corrosion $\gamma = \frac{P^2}{\pi}$ (Table). In case of convection, the corrosion amounts to $\gamma = \frac{1}{2} P\eta$ for $P < 0{,}025$ (Fig 4). For $P < 0{,}025$ and $\xi < 0{,}1$ the increase in the solution rate is proportional to the terms ξ and $\sqrt{\frac{\pi}{P}}$.

There are 4 figures, 1 table, and 10 references, 7 of which are Soviet.

ASSOCIATION: Nauchno-issledovatel'skiy institut vodosnabzheniya, Moskva (Scientific Research Institute for Water Supply, Moscow)

SUBMITTED: April 8, 1957

Card 2/2

VERIGIN, N.N., doktor tekhn.nauk,prof.

Evaluating subsurface water discharge of rivers. Trudy Lab. gidr.sooruzh. VODGEO no. 4:177-196 '63. (MIRA 17:6)

VERIGIN, N.N.

Performance of water-intake wells in nonsteady flow. Vop. fil'tr. rasch. gidr. soor. no.4:5-24 '64. (MIRA 17:6)

VERIGIN, N.N. (Moskva)

Silt deposition in the end face region around a well. PMTF no.2:74-80 Mr-Ap '64. (MIRA 17:8)

VERIGIN, N.N.

Some problems of thermal convection in porous media. Trudy VODGEO no.9:51-66 '64. (MIRA 18:10)

FOKIN, F.F., inzh.; BESPALOV, P.M., inzh.; RODIONOV, G.A., inzh.; VERIGIN, N.N., prof.; KUDRYAVTSEV, G.N., inzh.; MAR'YANSKIY, L.P., red.

[Technical conditions for planning and carrying out hydraulic engineering operations. Open and subsurface drainage of foundation pits of hydraulic structures] Tekhnicheskie usloviia na proektirovanie i proizvodstvo gidrotekhnicheskikh rabot. Otkrytyi i gruntovyi vodootliv kotlovanov gidrotekhnicheskikh sooruzhenii. Moskva, Gosenergoizdat, 1962. 101 p. (MIRA 17:9)

1. Akademiya stroitel'stva i arkhitektury SSSR. Vsesoyuznyy nauchno-issledovatel'skiy institut vodosnabzheniya, kanalizatsii, gidrotekhnicheskikh sooruzheniy i inzhenernoy gidrologii.

VERIGIN, N.N. (Moscow)

"The flow of solutions and emulsions through porous medium"

report presented at the 2nd All-Union Congress on Theoretical and Applied Mechanics, Moscow, 29 January -5 February 1964

VERIGIN, N.N. (Moscow)

"Soil consolidation with external load applied to the boundary of a half-plane and half-space"

report present at the 2nd All-Union Congress on Theoretical and Applied Mechanics, Moscow, 29 January - 5 February 1964

VERIGIN, N. N.

"Soil consolidation under the influence of an external load normal to the boundary of half-space."

report submitted for Intl Symp on Rheology & Soil Mechanics, Grenoble, France, 1-8 Apr 64.

VERIGIN, N.N.; ORADOVSKAYA, A.Ye.; SHESTAKOV, V.M., kand.tekhn.nauk, red.

[Methodological instructions for the calculation of solution processes in saline soils in the bodies and foundations of hydraulic structures] Metodicheskie ukazaniia po otsenke rastvoreniia zasolennykh gruntov v tele i osnovanii gidrotekhnicheskikh sooruzhenii. Moskva. Akad.stroit.i arkhit. 1960. 37 p. (Moscow. Vsesoiuznyi nauchno-issledovatel'skii institut vodosnabzheniia, kanalizatsii, gidrotekhnicheskikh sooruzhenii i inzhenernoi gidrogeologii. Laboratoriia inzhenernoi gidrogeologii. Laboratoriia inzhenernoi gidrogeologii. Informatsionnye materialy, no.15). (MIRA 14:11)

(Hydraulic structures) (Saline and Alkali soils)

VERIGIN, N.N.

Consolidation of soil under a flexible foundation. Osn., fund. i mekh. grun. 3 no.5:20-23 '61. (MIRA 14:11)
(Soil compaction)

VERIGIN, N.N., prof.; Prinimali Uchastiye: KITSIS, R.A., inzh.; ZHIGALIN, B.I., inzh.; AFINOGENOVA, M.V., inzh.; VINOGRADOVA, G.M., red. izd-va; KASIMOV, D.Ya., tekhn. red.

[Methods of determining the filtration properties of rocks] Metody opredeleniia fil'tratsionnykh svoistv gornykh porod. Moskva, Gos. izd-vo lit-ry po stroit., arkhit. i stroit. materialam, 1962. 177 p. (MIRA 15:4)

1. Moscow. Vsesoyuznyy nauchno-issledovatel'skiy institut vodosnabzheniya, kanalizatsii, gidrotekhnicheskikh sooruzheniy i inzhenernoy gidrogeologii.

(Rocks--Permeability)

VERIGIN, N.N. (Moskva)

Soil compaction under load. PMTF no.1:95-98 Ja - F '61.
(MIRA 14:6)
(Soil stabilization)

BOCHEVER, F.M.; VERIGIN, N.N.; SAFONOV, P.V., red. izd-va; IGNAT'YEV, V.A., tekhn. red.

[Methodological manual for calculating exploitable resources of underground waters for water-supply purposes] Metodicheskoe posobie po raschetam ekspluatatsionnykh zapasov podzemnykh vod dlia vodosnabzheniia. Moskva, Gos. izd-vo lit-ry po stroit., arkhit. i stroit. materialam. 1961. 198 p. (MIRA 14:9)
(Water supply)

VERIGIN, N.N., prof., doktor tekhn.nauk

Conference on underground hydraulics. Gidr. stroi. 31 no. 1:58 Ja '61. (MIRA 14:2)
(Hydraulics--Congresses)

VERIGIN, N.N., prof.

Conference on problems of underground hydraulics. Gidr. i mel. 12 no.9:59-60 S '60. (MIRA 13:9)
(Water, Underground--Congresses)

BELYY, L.D., doktor geol.-miner.nauk; VERIGIN, N.N., doktor tekhn. nauk, prof., ABRAMOV, S.K., kand.tekhn.nauk; LYKOSHIN, A.G., inzh.-gidrogeolog

Valuable generalization of experience ("Trudy" of the State Institute for the Design and Planning of Hydraulic Structures. No.3. Reviewed by L.D. Belyi and others). Gidr. stroi. 30 no.6:63-64 Je '60. (MIRA 13:7)
(Hydraulic engineering--Research)

ABRAMOV, S.K.; BINDEMAN, N.N.; BOCHEVER, F.M.; VERIGIN, N.N.; SAFONOV, P.V., red.izd-va; OSENKO, L.M., tekhn.red.

[Reservoir influence on hydrogeological conditions of adjacent areas] Vliianie vodokhranilishch na gidrogeologicheskie usloviia prilegaiushchikh territorii. Moskva, Gos.izd-vo lit-ry po stroit., arkhit. i stroit.materialam, 1960. 318 p. (MIRA 13:7)
(Reservoirs) (Water, Underground)

VERIGIN, N.N.

[Methods for calculating the lowering of the water level in ditches of hydraulic structures in the case of a steady seepage rate] Metody rascheta vodoponizheniia v kotlovanakh gidrosooruzhenii pri ustanovivshemsia rezhime fil'tratsii. Moskva, Akad.stroit. i arkhit. 1960. 44 p. (Moscow. Vsesoiuznyi nauchno-issledovatel'skii institut vodosnabzheniia, kanalizatsii, gidrotekhnicheskikh sooruzhenii i inzhenernoi gidrogeologii. Laboratoriia inzhenernoi gidrogeologii. Informatsionnye materialy, no.16). (MIRA 14:11)
(Seepage) (Hydraulic structures)

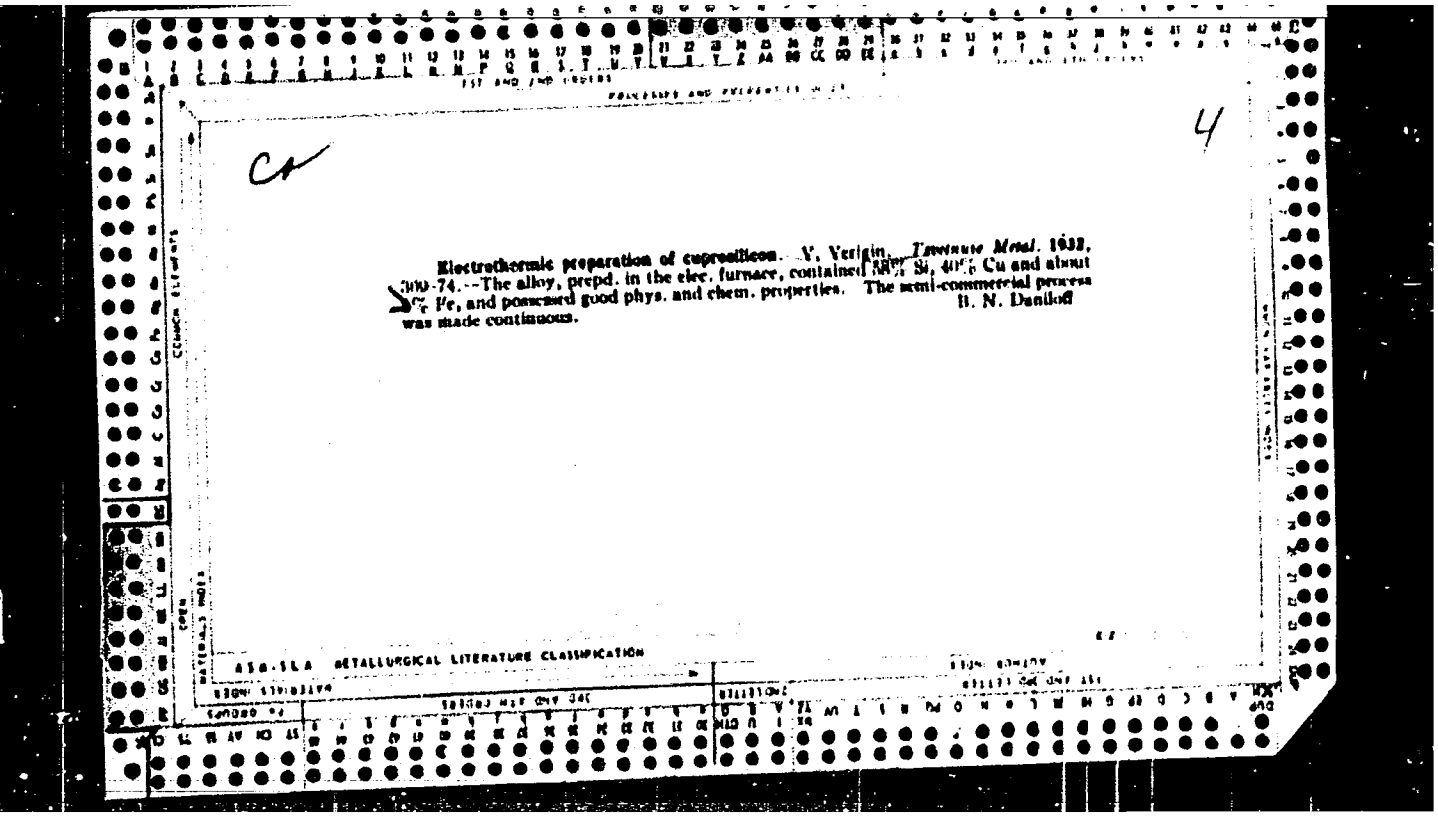
VERIGIN, N.N.

Concerning the dissolution of rock beds in underground waters.
Trudy VODGEO no.6:7-9 '64. (MIRA 18:3)

VERIGIN, P.; KOLIBABCHUK, A., nauchnyy sotrudnik,; MICHKOVSKIY, L.

Experience of combined units in transporting sugar beets. Avt. transp. 36 no. 7:10-11 Jl '58. (MIRA 11:8)

1. Upravlyayushchiy Vinnitskim oblavtotrestom(for Verigin).
2. Nauchno-issledovatel'skiy institut, Ukrdortrans (for Kolibabchuk).
3. Komandir Kalinovskoy avtoroty (for Michkovskiy).
(Sugar beets--Harvesting)
(Transportation, Automotive)



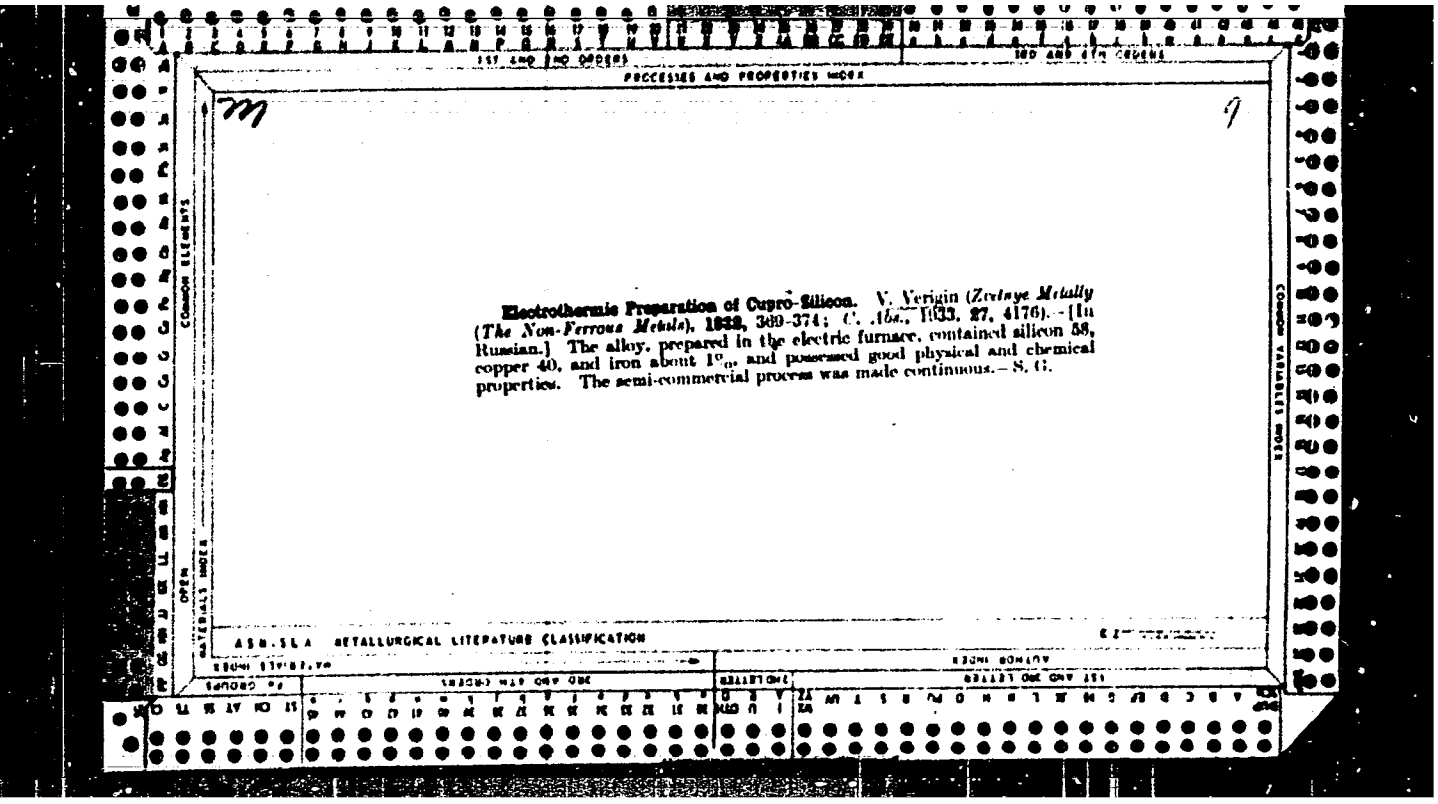
Cr

4

Electrothermic preparation of cuprosilicon. V. Verigin. *Tsvetnye Metal.* 1938, 309-74.--The alloy, prepd. in the elec. furnace, contained 58% Si, 40% Cu and about 2% Fe, and possessed good phys. and chem. properties. The semi-commercial process was made continuous.

B. N. Danilov

ASB-SLA METALLURGICAL LITERATURE CLASSIFICATION

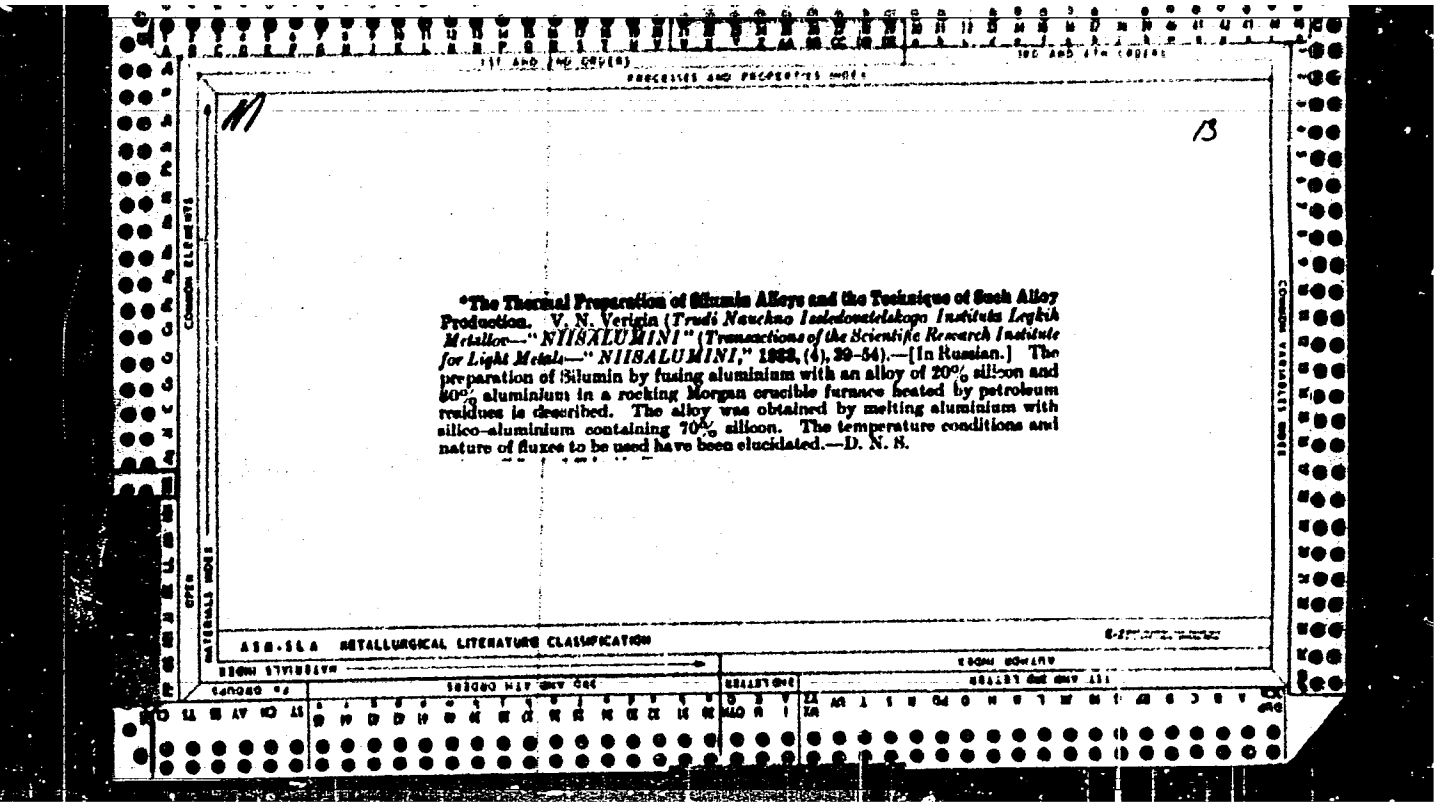


Electrothermic Preparation of Cupro-Silicon. V. Verigin (*Zvetnye Metally* (*The Non-Ferrous Metals*), **1933**, 369-374; *C. Abs.*, 1933, **27**, 4176).—[In Russian.] The alloy, prepared in the electric furnace, contained silicon 58, copper 40, and iron about 1%, and possessed good physical and chemical properties. The semi-commercial process was made continuous.—S. G.

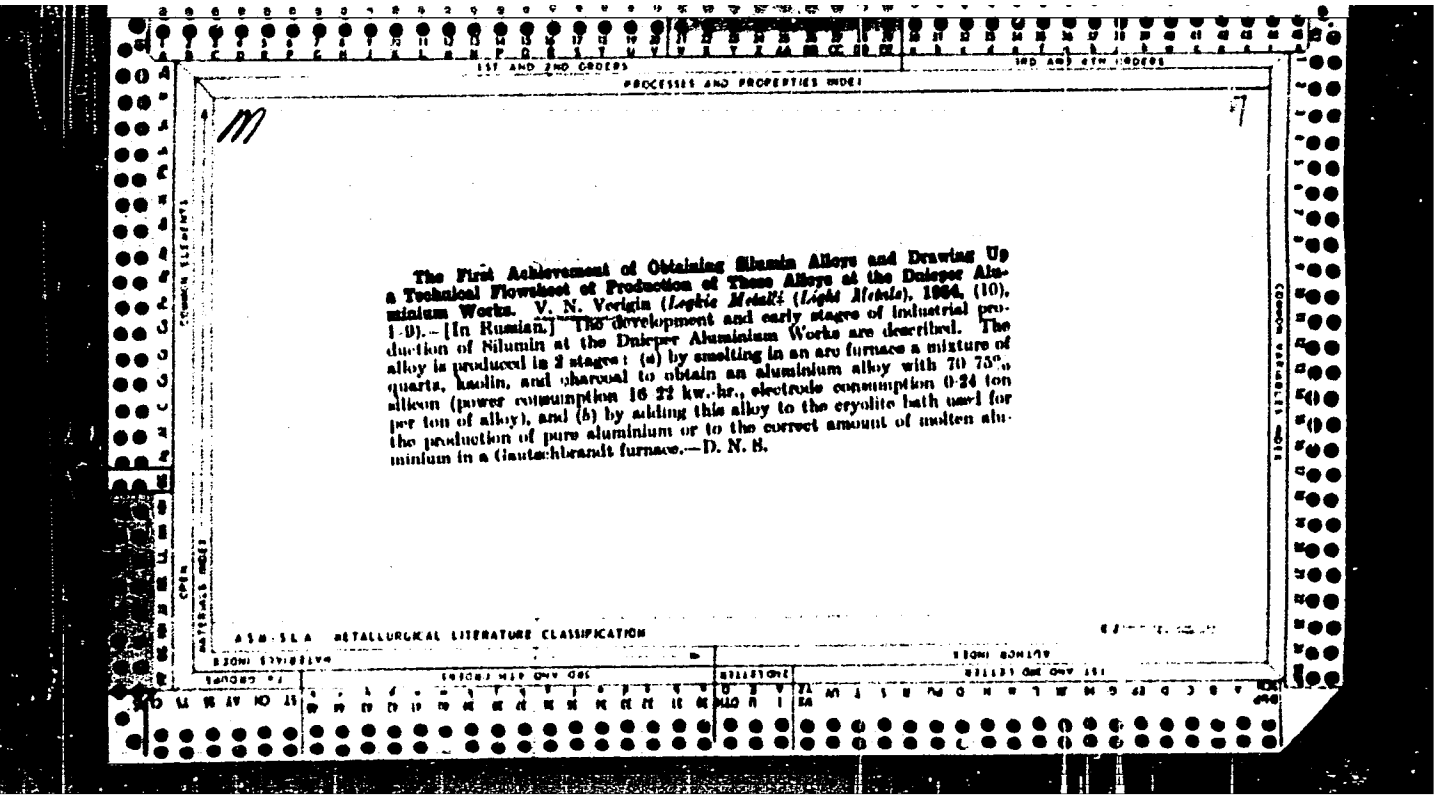
VERIGIN, V.I.

Electrothermic method for obtaining aluminum and its alloys.
Trudy Vost.-Sib. fil. AN SSSR no.13:72-85 '58. (MIRA 12:12)

1.Vsesoyuznyy alyuminiyevo-magniyevyy institut.
(Aluminum)



"The Thermal Preparation of Silumin Alloys and the Technique of Such Alloy Production. V. N. Vertgin (*Trudi Nauchno Issledovatelskogo Instituta Legkikh Metallov*—"*NIISALUMINI*" (*Transactions of the Scientific Research Institute for Light Metals*—"*NIISALUMINI*," 1933, (4), 39–54).—[In Russian.] The preparation of Silumin by fusing aluminium with an alloy of 20% silicon and 80% aluminium in a rocking Morgan crucible furnace heated by petroleum residues is described. The alloy was obtained by melting aluminium with silico-aluminium containing 70% silicon. The temperature conditions and nature of fluxes to be used have been elucidated.—D. N. S.



PROCESSES AND PROPERTIES INDEX

The First Achievement of Obtaining Silumin Alloys and Drawing Up a Technical Flowsheet of Production of These Alloys at the Dnieper Aluminium Works. V. N. Verigin (*Legkie Metalli* (*Light Metals*), 1934, (10), 1-9).—[In Russian.] The development and early stages of industrial production of Silumin at the Dnieper Aluminium Works are described. The alloy is produced in 2 stages: (a) by smelting in an arc furnace a mixture of quartz, kaolin, and charcoal to obtain an aluminium alloy with 70-75% silicon (power consumption 16-22 kw.-hr., electrode consumption 0·24 ton per ton of alloy), and (b) by adding this alloy to the cryolite bath used for the production of pure aluminium or to the correct amount of molten aluminium in a Gautschbrandt furnace.—D. N. B.

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION

CA 7

Aluminum metallurgy. P. G. Ebzarov and V. N. Veitgin. Russ. 51,704, Sept. 30, 1937. Al_2O_3 is heated in vacuo or in a neutral reaction zone in the presence of carbon-free reducing agents having a higher b. p. than Al that produce gaseous reaction products.

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION

A.C.S.

Electrothermal production of silicoaluminum from kaolins. V. N. Vrbigin. *Trudy Vsesoyus. Alyumin.-Magn. Inst.*, 1939, No. 19, 3-13; *Khim. Referat. Zhur.*, 1940, No. 6, 90-97; *Chem. Abs.*, 36, 4760 (1942).—The experiments were carried out in carbide-type 100-kw. arc furnaces with a conducting bottom and two suspended electrodes capable of being regulated. Either natural kaolins or washed kaolins, mixed with quartz sand, were used as raw material. Wood charcoal was used as reducing agent. The material was ground to approximately 1 to 0 mm. The mixture contained a 10% excess of charcoal based on the amount calculated for combustion of C to CO. The optimum conditions of the experimental furnace were as follows: 45 v., max. 1100 amp. (with a 110-mm. diameter electrode the current density was 10.85 amp./sq. cm.). The furnace used 22.75 kw.-hr./kg. and kaolin 2.5, quartz sand 1.9, charcoal 2.09, and electrodes 0.3 kg. Heating of the furnace bottom and the rapid replacing of electrodes gave a continuous process. The final product contained an average of Si 74.68, Al 24.33, and Fe 0.99%. Furnaces requiring up to 2000 kw. consumed, per ton of the product, kaolin 1.8, quartz sand 0.9, wood charcoal 1.3, and electrodes 0.24 ton and 10,000 to 15,000 kw.-hr.

2

MA

"Production of Alloys Rich in Aluminium in Large-Scale Laboratory Furnaces. V. N. Vergin and N. A. Adrianov (*Trudy Vsesoyuz. Alyuminy-Magn. Inst.* (*Trans. All-Union Aluminium-Magnesium Inst.*), 1939, (19), 18–31; *Khim. Referat. Zhur.*, 1940, (7), 71; *C. Abs.*, 1942, 36, 3707).—[In Russian.] Experiments on the production of aluminium alloys by electrothermal reduction of bauxites, alunites, and kaolin in a 60-kw. laboratory furnace indicates that alloys containing 40–70% of aluminium (depending on the content of iron in the mixture) can be obtained at 20 to 25 kw.-hr./kg. Optimum results were obtained with aluminium-silicon-iron alloys containing aluminium 45–50, silicon 35–40, and iron 15%. With a lower content of iron, the aluminium can be brought to 70%. Alloys higher in aluminium cannot be produced without the formation of considerable amounts of carbides. Anthracite, brown coal, and peat coke can be used as reducing agents instead of charcoal. The performance of the furnace, the calculation of the mixture, the amounts of reducing agents used, and the consumption of electric energy under various conditions, are given.

1943

MA

2

*Electrothermal Production of Aluminium–Silicon Alloys Rich in Aluminium. V. N. Yvrigin and N. A. Adrianov (*Trudy Vsesoyuz. Alyumin.–Magn. Inst.* (*Trans. All-Union Aluminium–Magnesium Inst.*), 1939, (19), 81-86; *Khim. Referat. Zhur.*, 1940, (7), 75; *C. Abs.*, 1942, 36, 5707).—[In Russian.] Experiments on the electrothermal reduction in a 600-kw. DAZ arc furnace with subsequent separation of Silumin (aluminium + 12-5% silicon) by the method of filtration, indicate that alloys containing approx. 75% of aluminium (the remaining components being silicon, iron, and titanium) can be obtained under production conditions. The yield of metal was 75-85%, with an average power consumption of 16 kw.-hr./kg.

1943

DANTSIS, Ya.B., kand. tekhn. nauk; MITROFANOV, N.N., inzh.; SIROTKIN, N.N., inzh.; BRUSAKOV, Yu.I., inzh.; VERIGIN, V.N., kand. tekhn. nauk

Electrical characteristics and principal indices of electric furnaces for manufacturing aluminum-silicon alloys. Prom. energ. 21 no. 1:39-44 Ja '66 (MIRA 19:1)

ACC NR: AP7005597 (A) SOURCE CODE: UR/0413/67/000/002/0023/0024

INVENTOR: Verigin, V. N.; Tkachenko, V. A.; Varyushenkov, A. M.

ORG: None

TITLE: A method for producing technically pure silicon. Class 12, No. 190356 [announced by the All-Union Scientific Research and Design Institute of the Aluminum, Magnesium and Electrode Industry (Vsesoyuznyy nauchno-issledovatel'skiy i proyektnyy institut alyuminiyevoy, magniyevoy i elektrodnoy promyshlennosti)]

SOURCE: Izobreteniya, promyshlennyye obraztsy, tovarnyye znaki, no. 2, 1967, 23-24

TOPIC TAGS: silicon, metal purification, quartz

ABSTRACT: This Author's Certificate introduces: 1. A method for producing technically pure silicon by reduction of silicon-containing raw material. To provide a wider range of raw materials and reduce the cost of the product, a silicon-containing material such as quartzite fines or quartz sand is mixed with a reducing agent such as green and partially metamorphosed minerals, coal with poor sintering properties, lignin or products formed by low-temperature carbonization or coking of these materials. The resultant silicon is then pressed and subjected to conventional treatment. 2. A modification of this method with intensification by conducting the reduction process in the presence of organic additives, specifically wastes from the wood processing industry as briquets or in some other form.

SUB CODE: 11, 07/ SUBM DATE: 16Jan65

Card 1/1 UDC: 546.28-121

BUKH, Igor' Naumovich; VERIGIN, V.N., ZAYCHIKOV, V.V.; LEONOVA, L.N.; POLOSINA, G.V., red.; PYATAKOVA, M.D., tekhn. red.

[Electronic multiplying attachment for the T-5MU tabulator; a transistorized device] Elektronnaia umnozhaiushchaia pristavka k tabuliatoru T-5mu; ustroistvo na poluprovodnikovykh priborakh. Moskva, Gosstatizdat, 1963. 116 p. (MIRA 16:8)

(Electronic computers)

STRELETS, Kh.L.; TAYTS, A.Yu.; GULYANITSKIY, B.S.; PAZUKHIN, V.A., prof., doktor tekhn.nauk, retsenzent; KHEYFITS, Ya.M., kand.khim.nauk, retsenzent; VERIGIN, V.N., kand.tekhn.nauk, retsenzent; FISHER, A.Ya., kand.tekhn.nauk; retsenzent; TSENTER, Ya.A., kand.tekhn. nauk, retsenzent; MARKOV, G.S., inzh., retsenzent; KRIVORUCHENKO, V.V., inzh., retsenzent; CHERNOBROV, S.M., red.; ARKHANGEL'SKAYA, M.S., red.izd-va; KLEYNMAN, M.R., tekhn.red.

[Magnesium metallurgy] Metallurgiia magniia. Izd.2., perer. i dop. Moskva, Gos.nauchno-tekhn.izd-vo lit-ry po chernoi i tsvetnoi metallurgii, 1960. 479 p. (MIRA 13:5)
(Magnesium--Metallurgy)

VERIGIN, V.N.

3(5) PHASE I BOOK EXPLOITATION SOV/2154

Akademiya nauk SSSR. Vostochno-Sibirskiy filial

Syr'yevyye resursy legkikh metallov Vostochnoy Sibiri, tom. 2 (Light Metal Resources of Eastern Siberia, Vol 2) Moscow, 1958. 298 p. (Series: Its: Trudy, vyp. 13) 1,800 copies printed.

Editorial Board: N.S. Alekseyev, Ye. P. Bessolitsyn, V.S. Brashev, A.F. Li, Doctor of Geological and Mineral Sciences, and Ye. I. Khazanov (Resp. Ed.) Candidate of Technical Sciences; Ed. of Publishing House: V.K. Shlepov; Tech. Ed.: P.S. Kashina.

PURPOSE: This issue of the Eastern Siberian Branch Transactions is of interest to structural, exploration and mining geologists, mineralogists, and metallurgists in the light metal industries.

COVERAGE: This collection of articles is a compilation of the reports presented at the third coordinated conference on "The Creation of a Light Metals Industry in Eastern Siberia Based on Local Ores" organized by the Laboratory of Electrometallurgy of the Eastern Siberian Branch of the AN SSSR in October, 1956. It met for the purpose of promoting coordination between the activities of the power generation combines and the fast developing light metals industry of Eastern Siberia. The reports indicate that large aluminum and titanium-magnesium combines are being constructed in the Krasnoyarsk Kray and the Irkutsk Oblast. These areas provide the cheapest sources of coal and electrical energy. Individual articles also report on the following subjects: general questions in the development of the light metals industry in Eastern Siberia, sillimanite ores, nepheline syenites, bauxites, magnesium ores, etc. References accompany each article.

(23)

SOV/137-59-3-5506

Translation from: Referativnyy zhurnal. Metallurgiya, 1959, Nr 3, p 81 (USSR)

AUTHORS: Bershteyn, Ya. A., Verigin, V. N.

TITLE: Electrothermics in the Aluminum Industry (Elektrotermiya v alyuminiyevoy promyshlennosti)

PERIODICAL: V sb.: Legkiye metally. Nr 4. Leningrad, 1957, pp 69-75

ABSTRACT: Immediate production of pure Al by direct reduction of Al_2O_3 with carbon in an ore-reduction furnace is impossible. Hence, the process is carried out in two stages: In the first stage of the process the smelting of electrothermal Si-Al alloy (up to 70% Al) is carried out. In the second stage the primary alloy obtained is reprocessed into Al alloys for the preparation of structural Al alloys or technically pure Al. The effectiveness of the process to a great extent depends on the utilization of high-silicon Al alloys (siliceous residues), which inevitably form as byproducts in the processing of primary Si-Al alloys into Al and its alloys. Calculations show that preparation of Al by the electrothermal method is most effective when the primary Si-Al alloys obtained are reprocessed into various casting alloys which usually contain Si as a necessary component. In the

Card 1/2

Electrothermics in the Aluminum Industry

preparation of Silumin alloy and technically pure Al from primary electrothermal alloys a decrease in the specific consumption of energy by 87 - 93%, in specific capital expenses by 67 - 73%, and in cost by 76 - 85%, with an increase in labor productivity of up to 141 - 109%, are expected in comparison with the existing methods.

I. G.

VERIGIN, V. N.

137-58-5-9265

Translation from: Referativnyy zhurnal, Metallurgiya, 1958, Nr 5, p 69 (USSR)

AUTHOR: Verigin, V.N.

TITLE: Electrothermics, a Promising Method for Production of Aluminum and its Alloys (Elektrotermiya i perspektivnyy metod polucheniya alyuminiya i yego splavov)

PERIODICAL: Sb. materialov i tekhn inform. Gos. in-t po proyektir. alyumin., magniyevykh i elektrodn. z-dov, 1957, Nr 1, pp 21-32

ABSTRACT: Al and Al carbide are produced in the process of reduction of Al_2O_3 with coal. Mutual solubility of Al, Al carbide, and Al_2O_3 promotes the formation of a very tough, refractory oxycarbometallic material which has no practical value. It is for this reason that the thermal method of producing pure Al has not yielded any positive results to date. The problem of obtaining pure Al by thermal treatment was solved by the All-Union Institute for Aluminum and Magnesium by means of a two-stage process. The first stage involves ore-reduction smelting of the primary Si-Al melt by electro-thermal methods, while in the second stage this melt is changed into various Al alloys to be used in the manufacture of structural Al alloys or in the production of

Card 1/2

Electrothermics, a Promising Method (cont.)

commercially pure Al. The primary melts are obtained from such raw materials as alumina-bearing substances (kaolines, kyanites, andalusites, sillimanites, corundums, diaspores, etc.) which have been thoroughly intermixed and briquetted with reducing agents (lignite and young coal, as well as charcoal and peat coke). The smelting of briquets produces a primary Si-Al melt containing about 70% Al. According to one system, the melt is diluted with Al to silumin composition after which it is alloyed with Mn and is filtered at a temperature of 575°C; silumin and filter residue are the resulting products. Another system calls for partial separation of Si by means of decantation (or filtration) of the primary melt at a temperature of 675°; the decantate is alloyed with Al to a silumin composition, after which it is alloyed with Mn and subjected to filtration in order to segregate impurities. With the aid of Zn it is also possible to convert the decantate, obtained at 675° from the primary melt, to a siliceous Al containing 2-3% of Si. Pure Al is produced by means of employing Mg for refining of siliceous Al obtained with the aid of Zn from the primary melt.

1. Aluminum--Purification 2. Aluminum--Production 3. Aluminum alloys--Production 4. Electric furnaces--Effectiveness

I.G.

Card 2/2

Verigin, V.N.

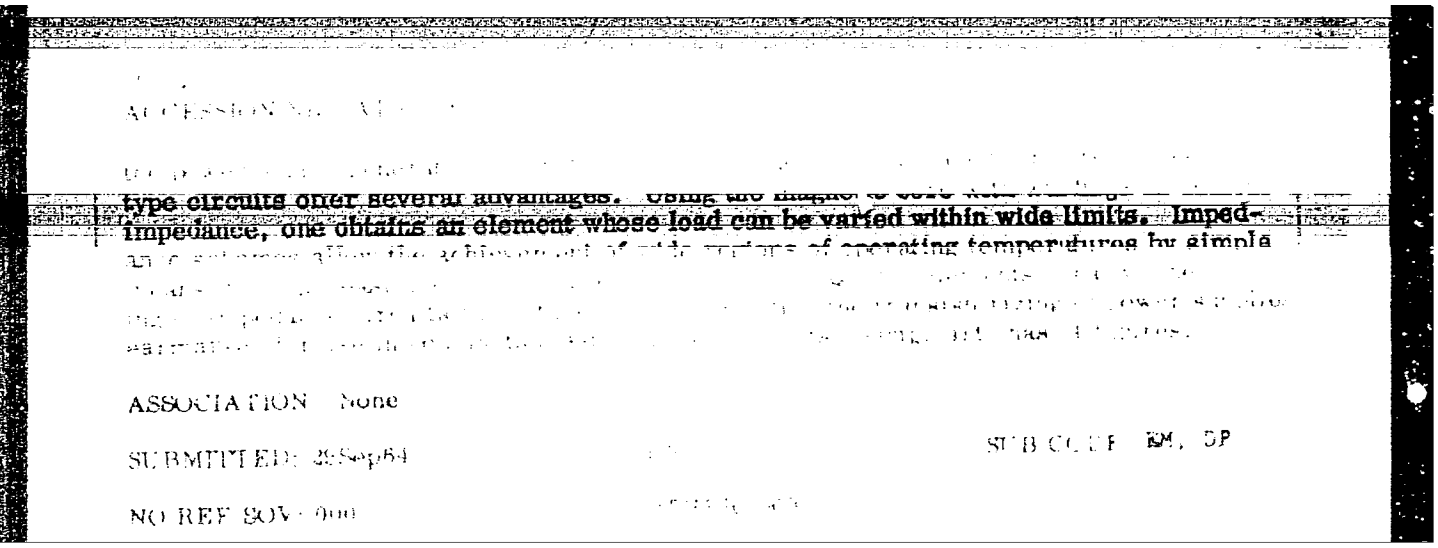
ALEKSEYEV, N.S.; BELYAYEV, A.P.; BUGAREV, L.A.; BUTOMO, D.G.; VASIL'YEV, Z.V.; VERIGIN, V.N.; VOROB'YEV, G.M.; GAYLIT, A.A.; GOL'SHTEYN, P.M.; GOKHSHTEYN, M.B.; ZHOLOBOV, V.V.; ZEDIN, N.N.; IVANOV-SKOBLIKOV, N.I.; KUTEPOV, Ya.V.; LANDIKHOV, A.D.; MARAYEV, S.Ye.; MILLER, L.Ye.; OL'KHOV, N.P.; PERLIN, I.L.; POSTNIKOV, N.N.; ROZOV, M.N.; CHERNYAK, S.N.; CHUPRAKOV, V.Ya.; TSENTER, Ya.A.

Vladimir Oskarovich Gagen-Torn; obituary. TSvet.met. 27 no.5:67-68 S-O '54. (MIRA 10:10)

(Gagen-Torn, Vladimir Oskarovich, 1888-1954)

BRUSENTSOV, N.P.; ZHOGOLEV, Ye.A.; VERIGIN, V.V.; MASLOV, S.P.; TISHULINA, A.M.

Small-size automatic digital computer "Setun'." Vest. Mosk. un. Ser. 1: Mat.,mekh. 17 no.4:3-12 Jl-Ag '62. (MIRA 15:7)
(Electronic digital computers)



type circuits offer several advantages. Using the [illegible] impedance, one obtains an element whose load can be varied within wide limits. Imped-

ASSOCIATION None

SUBMITTED: 25Sep64 SUB CODE EM, SP

NO REF SOV: 000

KRYSHOVA, N.A.; VERIGINA, A.S.; KIRPIKINA, M.D.

Studies on the effect of the curariform preparation Mydeton in diseases of the nervous system with increased muscle tonus. Vop.psikh.i nerv. 8:378-382 '62. (MIRA 17:4)

VERIGINA, I.A.

Histological structure of the intestines of Hypophthalmichtys molitrix and Ctenopharyngodon idella. Sbor. trud. Zool. muz. MGU 8:189-195 '61. (MIRA 15:5)
(Amur River—Hypophthalmichtys) (Amur River—Ctenopharyngodon)
(Digestive organs—Fishes)

VERIGINA, I. G.; VDOVENKO, V. M.; KOVALEVA, T. V.

Electric conductivity of ether solutions of the uranyl nitrate.
Trudy Radiev. inst. AN SSSR 8:38-46 '58 (MIRA 12:2)
(Uranyl nitrate) (Electric conductivity)

VERIGINA, K.V., kand. geologo-mineral. nauk

Use of instrumental and continuous methods in agrochemical laboratories. Zhur.VKHO 10 no.4:423-427 '65.
(MIRA 18:11)

VERIGINA, K.V.

Comparative evaluation of the methods for determining the exchangeable calcium and magnesium in carbonate rich soils and soils containing gypsum. Pochvovedenie no.9:96-103 S '64. (MIRA 17:12)

1. Pochvennyy institut imeni V.V.Dokuchayeva, AN SSSR, Moskva.

VERIGINA, K.V.

Trace element content of soils of the Klin-Dmitrov Ridge. Pochvovedenie no.9:14-24 S '62. (MIRA 16:1)

1. Pochvennyy institut imeni V.V.Dokuchayeva i Yuzhnyy gosudarstvennyy institut po proyektirovaniyu vodnogo khozyaystva. (Klin-Dmitrov Ridge--Soils--Composition)

ANTIPOV-KARATAYEV, I.N., akademik, otv.red.; TYURIN, I.V., glavnyy red.; GORBUNOV, N.I., red.; VERIGINA, K.V., red.; ZONN, S.V., red.; IVANOVA, Ye.N., red.; KEDROV-ZIKHMAN, O.K., red.; KONONOVA, M.M., red.; LOBOVA, Ye.V., red.; MISHUSTIN, Ye.N., red.; RODE, A.A., red.; ROZANOV, A.N., red.; SOKOLOV, A.V., red.; FRIDLAND, V.M., red.; SHUVALOV, S.A., red.; YEFIMOV, A.L., red.izd-va; MAKUNI, Ye.V., tekhn.red.

[Reports of Soviet soil scientists to the 7th International Congress in the U.S.A.] Doklady sovetskikh pochvovedov k VII Mezhdunarodnomu kongressu v SShA. Moskva, Izd-vo Akad.nauk SSSR, 1960. 487 p. (MIRA 13:10)

1. International Congress of Soil Science. 7th. 2. AN Tadzhikskoy SSR (for Antipov-Karatayev). 3. Pochvennyy institut im. V.V. Dokuchayeva Akademii nauk SSSR, Moskva (for Antipov-Karatayev, Gorbunov,

(Continued on next card)

ANTIPOV-KARATAYEV, I.N.---(continued) Card 2.
Ivanova,,Kononova, Rozanov,,Fridland, Sokolov). 4. Laboratoriya lesovedeniya Akademii nauk SSSR, Moskva (for Zonn). 5. Vsesoyuznyy nauchno-issledovatel'skiy institut udobreniy i agropochvovedeniya Vsesoyuznoy ordena Lenina Akademii sel'skokhoz.nauk imeni V.I.Lenina i Institut zemledeliya akademii sel'skokhoz.nauk Belorusskoy SSR (for Kedrov-Zikhman). 6. Institut mikrobiologii Akademii nauk SSSR, Moskva (for Mishustin). 7. Nauchnyy institut po udobreniyam i insektofungitsidam im. Ya.V.Samoylova, Moskva (for Sokolov).
(Soil research)

VERIGINA, K.V.

Review of the reports of the Soil Fertility Section of the First Conference of Soil Scientists. Pochvovedenie no.3:113-117 Mr '59. (MIRA 12:11)

(Soil fertility)

COUNTRY : USSR
CATEGORY : Soil Science. Soil Genesis and Geography.

ABS. JOUR. : RZhBiol., No.3 1959, No. 10650

AUTHOR : K. V. Veriginu
INST. :
TITLE : On the Characteristics of Soil Formation Under Forest and Arable Land in Kaliningradskaya Oblast'.

ORIG. PUB. : Pochvovedeniye, 1958, No. 5, 22-32

ABSTRACT : The soil solutions of the cultivated and forest turf-podzolic soils of Kaliningradskaya oblast' differ in composition and the degree of mineralization. The composition of soil solutions of the forest soil varies considerably in genetic horizons, but changes little with time. The composition of soil solutions of plowland soil more homogeneous in profile but in times varies a great deal. The chief component of the soil solutions of the

CARD: 1/2

4

COUNTRY :
CATEGORY :

J

ABS. JOUR. : RZhBiol., No. 1959, No. 10650

AUTHOR :
INST. :
TITLE :

ORIG. PUB. :

ABSTRACT : forest soils is organic matter which predominates over the mineral residue. In spring, the nitrate content in the soil solutions of plowland soil decreases and parallel to this the C content drops. No nitrates were found in the forest soils. In the soil solutions of forest soils, the two-valence Fe is constantly present. It is absent in the solutions of plowland soils. -- K. V. Verigina

CARD: 2/2

VERIGINA, K.V.

Characteristics of soil formation under forests and plow in Kaliningrad Province. Pochvovedenie no.5:22-32 My '58. (MIRA 11:6)

1.Pochvennyy institut im. V.V. Dokuchayeva AN SSSR.
(Kaliningrad Province--Soil formation)

CA VERIGINA, K.V.

Migration and accumulation processes of iron in soil formation. K. V. Verigina. *Trudy Pochvennogo Inst. im V. V. Dokuchaeva* 34, 190-201(1951). -The problem was studied on podsolic and marshy soils. The ground waters contained 3-4 mg. Fe per l. while soil solns. contained 6-8 mg. Fe/l. The highest concn. of Fe, up to 200 mg./l., was encountered in bogs formed by springs. The accumulation of Fe there was attributable primarily to reduction of sulfates. The accumulation of Fe promotes the formation of saline soils impregnated with Fe at the periphery of marshes The characteristics of these solonchaks were a low pH (approx. 2) and an accumulation of $Fe(OH)_3$ and vivianite. The accumulation of salts in the soil soln. of ferruginous solonchaks reached several g./l. and it contained $FeSO_4$ (under anaerobic conditions), $Al_2(SO_4)_3$, $MnSO_4$, and $CuSO_4$. The pH of the soil soln. was somewhat higher than that of the soil. The highest concn. of salt which the soil soln. attained occurred in the spring and became lowest in fall, primarily because of pptn. of Fe oxides. When Fe accumulated in spring marshes and finds its way into lakes it becomes one of the main sources of lake-ore formation. M. Hoseh

VERIGINA, K. V.

M/5
632.892
.V5

Agrokhimicheskiy analiz pochv v laboratoriyakh mts (soil analysis in machine-tractor station laboratories) Moskva, Izd-vo akademii Nauk SSSR, 1954.

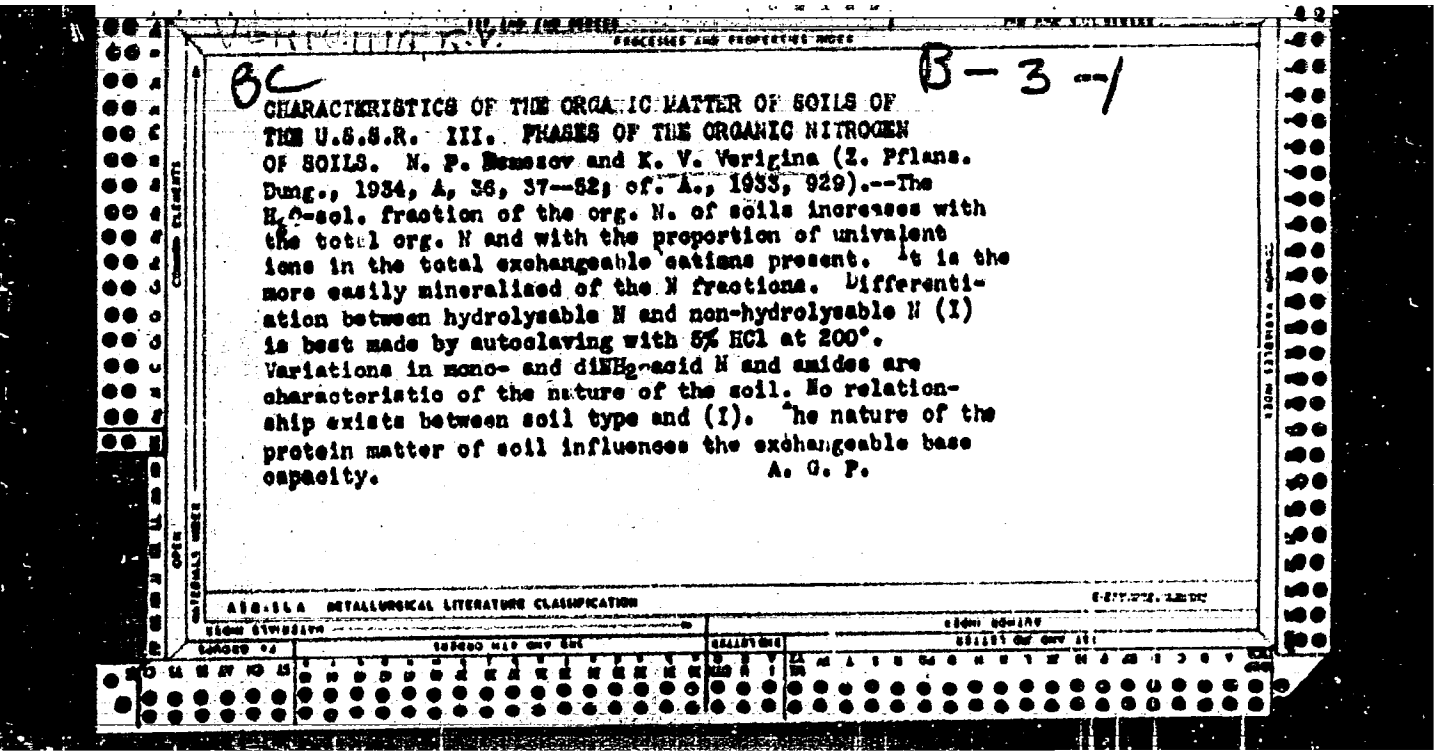
85 P. illus., diagrs., tables.

"Literatura": P. (86)

VERIGINA, K. V.

Verigina, K. V. - "On the content, mobility and form of phosphorus compound in the chernozem of the Strelka steppe," Trudy Tsentr.-Chernozem. gos. zapovednika, Issue 2. 1948, p. 103-16, - Bibliog: 14 items

SO: U-4355, 14 August 53, (Letopis 'Zhurnal 'nykh Statey, No. 15, 1949)

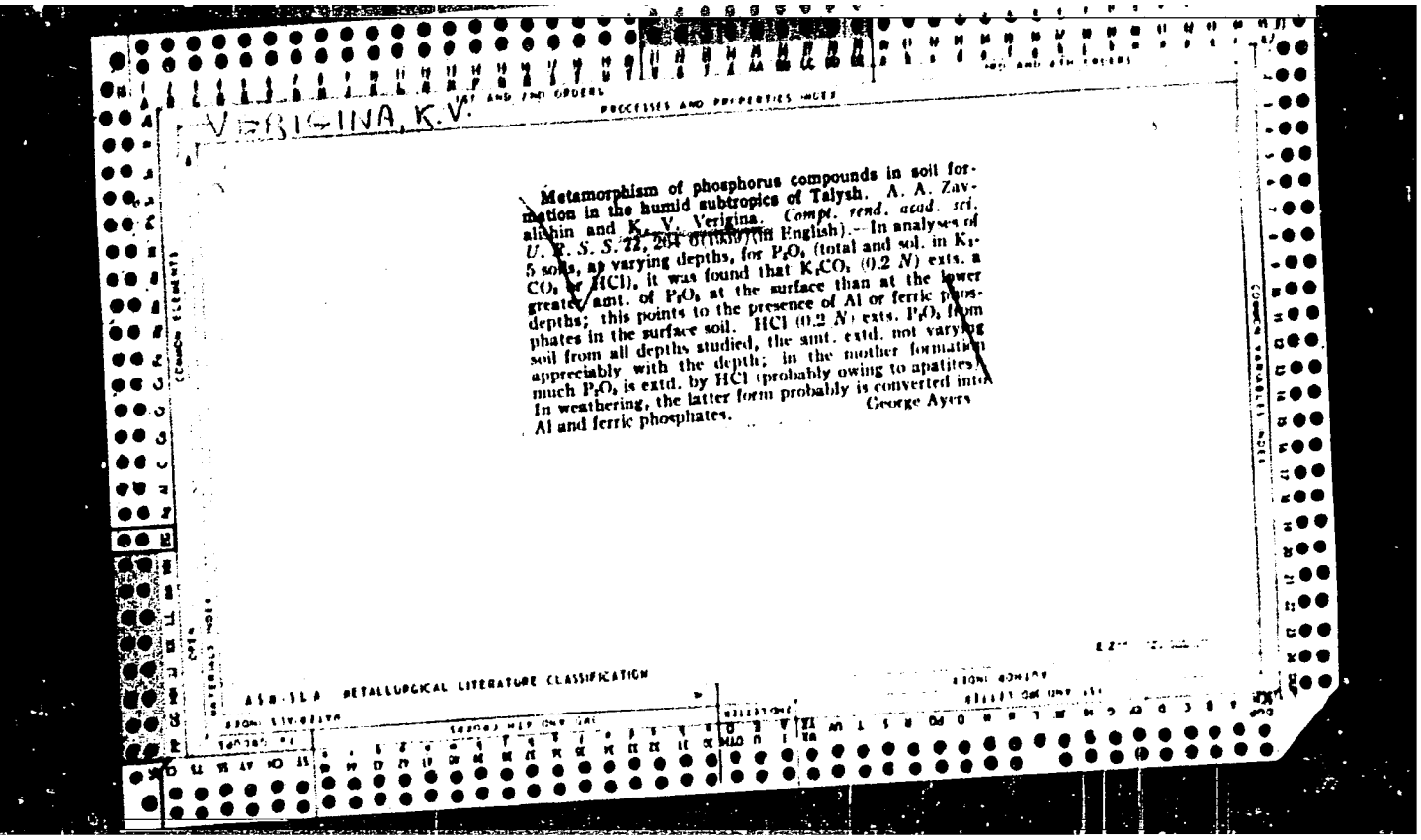


BC

B-3-1

CHARACTERISTICS OF THE ORGANIC MATTER OF SOILS OF THE U.S.S.R. III. PHASES OF THE ORGANIC NITROGEN OF SOILS. N. P. Remesov and K. V. Verigina (Z. Pflanz. Dung., 1934, A, 36, 37—82; cf. A., 1933, 929).—The H_2O-sol. fraction of the org. N. of soils increases with the total org. N and with the proportion of univalent ions in the total exchangeable cations present. It is the more easily mineralised of the N fractions. Differentiation between hydrolysable N and non-hydrolysable N (I) is best made by autoclaving with 5% HCl at 200°. Variations in mono- and diNH_2-acid N and amides are characteristic of the nature of the soil. No relationship exists between soil type and (I). The nature of the protein matter of soil influences the exchangeable base capacity.

A. G. P.



VERIGINA, K.V.

Metamorphism of phosphorus compounds in soil formation in the humid subtropics of Talysh. A. A. Zavalishin and K. V. Verigina. *Compt. rend. acad. sci. U. R. S. S.* 22, 204–6(1939)(In English).—In analyses of 5 soils, at varying depths, for P_2O_5 (total and sol. in K_2CO_3 or HCl), it was found that K_2CO_3 (0.2 *N*) exts. a greater amt. of P_2O_5 at the surface than at the lower depths; this points to the presence of Al or ferric phosphates in the surface soil. HCl (0.2 *N*) exts. P_2O_5 from soil from all depths studied, the amt. extd. not varying appreciably with the depth; in the mother formation much P_2O_5 is extd. by HCl (probably owing to apatites). In weathering, the latter form probably is converted into Al and ferric phosphates.

George Ayers

A58-11A METALLURGICAL LITERATURE CLASSIFICATION

RAZUMOV, Gennadiy Aleksandrovich; VERIGINA, N.N., doktor tekhn. nauk, prof., red.; BUTT, V.P., red. izd-va; KHENOKH, F.M., tekhn. red.

[Radial intakes for urban and industrial water supply] Luchevye vodozabory dlia vodosnabzheniia gorodov i promyshlennosti. Pod red. N.N.Verigina. Moskva, Izd-vo M-va kommun.khoz. RSFSR, 1962. 58 p. (MIRA 15:7)
(Intakes (hydraulic engineering))
(Water-supply engineering)

AUTHOR: [illegible], N. P.; Verigina, V. V.; Maslov, S. P.

NO. [illegible]

the core when recording [illegible]

APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R001859510007-5"

18 1285
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24214
S/148/61/000/001/013/015
A161/A133

AUTHORS: Verigina, Z. S., and Livshits, B. G.

TITLE: Determining the mechanical properties of the ВТ-3 (VT-3) and ВТ-3-1 (VT-3-1) alloys

PERIODICAL: Izvestiya vyeshikh uchebnykh zavedeniy. Chernaya metallurgiya, no. 1, 1961, 170 - 175

TEXT: Two industrial heats of ВТ-3 (VT-3) and ВТ-3-1 alloys have been investigated. Their chemical composition (in %) was:

	Ti	Al	Cr	Mo	O_2	N_2	Si	Fe	H_2	C
VT-3	Base	4.87	2.86	-	0.20	0.165	0.04	0.27	0.005	0.03
VT-3-1	Base	4.54	2.11	1.7	0.2	0.055	0.14	0.27	0.003	0.057

The investigation purpose was: 1) To determine the mechanical properties (in tension and impact tests) after annealing to practically full equilibrium state; 2) To demonstrate that the mechanical properties are not changing during heating to the eutectic temperature if the specimens had been annealed to equilibrium state; 3) To show that the standard industrial heat

Card 1/4

Determining the mechanical properties of...

treatment rules result in a residual supercooled β-phase, and that the alloy containing residual high-temperature β becomes brittle in heating, i.e. that the impact resistance is lowered. The standard heat treatment specification requires heating at 870°C, cooling in the furnace down to 650° and soaking for 1 hour at this temperature, then cooling in open air. The article includes two tables giving the mechanical properties found in both alloys in the tests after the standard heat treatment, and after annealing to practically equilibrium state. Specimens that had been so annealed had the strength required by the standard specifications, and their impact resistance corresponded to the upper standard requirement limit. Thus, alloys annealed to practical equilibrium had good strength and high impact resistance despite the very slow cooling used in the experiments (40 and 15°/hr). This is supposed to be due to impurities (O_2, N_2) dissolved in annealing at high temperature (in β-range) and then retained in α, despite very slow cooling. Specific electric resistance increased at higher hardening temperatures in the β-range, but hardness rose only slightly. At higher heating for hardening, the impurities (O_2, N_2) dissolve in the β-phase, and they are alloying elements. Higher-alloyed β yields martensite with higher electric resist-

S/148/61/000/001/013/015
A161/A133

Determining the mechanical properties of ...

ance and higher hardness, but the hardness is compensated by a higher quantity of residual soft β, and this accounts for only a slight increase in hardness comparing to the increase in electric resistance. A special investigation is necessary to study the kinetics of martensite decomposition and transformation of residual β during tempering, but it is apparent that alloying elements are better utilized at higher heating temperature for hardening and annealing. It is pointed out that tensile test specimens annealed as prescribed by standard heat treatment specification developed a clearly expressed neck, and they elongated mainly on account of the neck. Specimens annealed to practical equilibrium stretched over nearly their entire length, without any neck. It had been stated by the authors previously (Ref. 1: Livshits and Vertigina, Izv. vyssh. uch. zav. Chernaya metallurgiya, no. 5, 1960) that the studied alloys in the equilibrium state consist of an α-phase and $TiCr_2$, and after annealing as per standard specifications they contain a residual β-phase. As the quantity of slip planes in the hexagonal α-phase lattice is smaller than in the cubic body-centered β-phase, the deformation of tension test specimens is different. Specimens annealed to practical equilibrium do not become brittle when heated to temperatures below the eutectic. The lower boundary of the eutectic range for VT-3-1 alloy

Card 3/4

S/148/61/000/001/013/015
A161/A133

Determining the mechanical properties of...

is at 500±10°C. In annealing as per standard specification the impact resistance of specimens drops after soaking in 400, 450, 500 and 550°. Conclusions: 1) Annealing to practical equilibrium state yields a strength within the standard requirements and a high impact resistance. 2) The mechanical properties of the alloys after annealing to equilibrium do not change after heating to eutectic temperature. Thus, the working temperature of the alloys can be raised by producing alloys with higher eutectic temperature. 3) Annealing as required in standard specifications raises strength to the upper limit (of standard requirement range) and yields high impact resistance; after heating to 400 - 550° the impact resistance drops. Embrittlement is apparently caused by the formation of the martensite phases during the decomposition of the residual β-phase. There are 3 figures, 2 tables, and 1 Soviet-bloc reference.

ASSOCIATION: Moskovskiy institut stali (Moscow Steel Institute)

SUBMITTED: June 21, 1960

Card 4/4

18.7500

23998
S/148/61/000/005/012/015
E021/E135

AUTHORS: Verigina, Z.S., and Livshits, B.G.

TITLE: Study of the annealing of VT-3 and VT-3-1 alloys

PERIODICAL: Izvestiya vysshikh uchebnykh zavedeniy, Chernaya metallurgiya, 1961, No.5, pp. 162-172

TEXT: The structure and properties of titanium alloys were studied in connection with the decomposition of the martensitic structure (α'-phase) and the transformation of the residual β-phase. The Ti-base alloys used were VT-3 (4.87% Al, 2.86 Cr, 0.2 O_2, 0.165 N_2, 0.04 Si, 0.27 Fe, 0.005 H_2, 0.03 C), and VT-3-1 (4.54% Al, 2.11 Cr, 1.7 Mo, 0.20 O_2, 0.053 N_2, 0.14 Si, 0.27 Fe, 0.003 H_2, 0.05% C). The VT-3 alloy was quenched from 1100 and 1200 °C in water and annealed at 100-800 °C with water or air cooling. Electrical resistance and hardness measurements, and also microstructural, X-ray and dilatometry studies, were made. Fig.1 shows the electrical resistance (ohm mm^2/m) against tempering temperature °C (after hardening) for different times for the VT-3 alloy. Fig.1a after heat treatment at 1200 °C for two hours and quenching in water, with an air cool after tempering:

Card 1/7

Study of the annealing of VT-3 and...

Fig.16 is the same with a water quench after tempering. Fig.14 is after heat treating at 1100 °C for 15 minutes and water quenching, with water cooling after tempering). Similar curves are plotted for hardness after the same heat treatments. Fig.4 shows the change in hardness (Fig.4a) and electrical resistance (Fig.4b) of alloy VT-3-1 against annealing temperature after heat treatment at 1000 °C for 15 minutes and water-quenching, with water cooling after annealing. (Curve 1 is annealing for 2 hours, curve 2 for 12 hours, curve 3 for 24 hours). It can be seen from the curves that the relation between the properties of the alloys and tempering temperature is somewhat complicated and depends on the initial structure after quenching. Decomposition of the martensitic phase during ageing leads to a decrease in hardness and electrical resistance and transformation of the residual β-phase leads to an increase in properties. Cooling in water after tempering accelerates the transformation of the residual β-phase. The transformation of the residual β-phase probably takes place by a martensitic change, but the temperature of the end of the transformation is in the subzero temperature range, and it is therefore impossible to obtain a structure without metastable

Card 2/7

23998
S/148/61/000/005/012/015
Study of the annealing of VT-3 and ... E021/E135

phases by hardening and tempering.
There are 5 figures, 1 table and 4 references: 3 Soviet and
1 German.

ASSOCIATION: Moskovskiy institut stali
(Moscow Steel Institute)

SUBMITTED: October 29, 1960

Card 3/7

VERIGINA, Z.S.; LIVSHITS, B.G.

Investigating the tempering of BT-3 and BT-3-1 alloys. Izv.vys.ucheb. zav.; chern.met. 4 no.5:162-172 '61. (MIRA 14:6)

1. Moskovskiy institut stali.
(Titanium-aluminum-chromium alloys--Heat treatment)

VERIGINA, Z.S.; LIVSHITS, B.G.

Determining critical points in VT-1 and VT-3-1 industrial titanium alloys. Izv.vys.ucheb.zav.; chern.met. no.5: 163-171 '60. (MIRA 13:6)

1. Moskovskiy institut stali.
(Titanium alloys--Metallography) (Phase rule and equillibrium)

S/148/60/000/005/008/009

AUTHORS: Verigina, Z.S., Livshits, B.G.

TITLE: Determination of Critical Points in Commercial Titanium Alloys BT-3 (VT-3) and BT-3-1 (VT-3-1)

PERIODICAL: Izvestiya vysshikh uchebnykh zavedeniy, Chernaya metallurgiya, 1960, Nr 5, pp 163 - 171

TEXT: The commercial titanium alloys VT-3 and VT-3-1 (composition given in a table) become brittle after conventional thermal treatment. To explain the causes of such brittleness and to select the appropriate thermal treatment for eliminating same the authors undertook to determine the upper and lower critical points and the cooling rates ensuring the equilibrium state at low temperatures. To determine the upper critical points the specimens were water-cooled from various temperatures. Heating was performed in a vertical furnace in argon atmosphere. Additionally, X-ray analyses were carried out with the use of data submitted by Yu.A. Bagaryatskiy, T.V. Tagunova and G.I. Nosova [Ref 4]. To determine the lower critical points and cooling conditions entailing the equilibrium phase state, the specimens were cooled at

Card 1/2

S/148/60/000/005/008/009

Determination of Critical Points in Commercial Titanium Alloys BT-3 (VT-3) and BT-3-1 (VT-3-1)

different rates from the β-zone (500, 200, 100, 80, 60 and 40 degrees per hour, and the VT-3 alloy at 15 degrees per hour). In alloys cooled down to the equilibrium state, electric resistances were measured during heating and cooling (Figure 5). It was established that the single-phase β-zone was obtained for VT-3 by heating up to 1,100°C and for VT-3-1 to 1,000°C. The lower critical point (probably the eutectoid one) was for VT-3 equal to 580°C ± 10, and for VT-3-1 500°C ± 10. The replacement of 0.75% chromium by 1.7% molybdenum reduced the upper and lower critical points approximately by 100°C. The annealing structure of the VT-3 alloy was obtained by a cooling rate of 15°/hour and of VT-3-1 by that of 40°/hour.
There are: 1 table, 4 sets of microphotos, 2 sets of graphs and 4 references, 3 of which are English and 1 Soviet.

ASSOCIATION: Moskovskiy institut stali (Moscow Steel Institute)

VB

SUBMITTED: November 17, 1959

Card 2/2

VERIGO

OLEVSKIY, Viktor Aleksandrovich, kand.tekhn.nauk; VERIGO, retsenzent; TROITSKIY, A.V., retsenzent; YEZDOKOVA, M.L., red.izd-va; BERLOVA, A.P., tekhn.red.

[Construction, design and operation of crushing machinery] Konstruktsii, raschety i ekspluatatsiia drobilok. Moskva, Gos. nauchno-tekhn.izd-vo lit-ry po chernoi i tsvetnoi metallurgii, 1958. 459 p. (MIRA 11:4)
(Crushing machinery)

MERZLOV, Ye.; ZAV'YALOV, A.; LEBEDEV, N.; LAKTIONOV, A., gruppovoy inzh.-elektromekhanik; VERIGO, A., elektromekhanik

Automatic control on ships. Mor. flot 23 no. 12:45 D '63. (MIRA 17:5)

1. Nachal'nik sluzhby sudovogo khozyaystva Dunayskogo parokhodstva (for Merzlov). 2. Nachal'nik tekhnicheskogo otdela Dunayskogo parokhodstva (for Zav'yalov). 3. Starshiy inzh. NIO Odesskogo vysshego inzhenernogo morskogo uchilishcha (for Lebedev). 4. Dunayskoye parokhodstvo (for Laktionov, Verigo).

VERIGO, B. F.

(General course in the human and animal physiology) 2.izd.-vo, 1924. 511p.
(Normal'nye rukovodstva dlia vysshei shkoly)

1. Physiology - Text-books.

KURINNYY, T., inzhener; VERIGO, G.

Using electric power station slag in the building materials industry.
Strei.mat.izdel. i konstr. 1 no.12:19-20 D '55. (MLRA 9:7)
(Slag) (Building materials)

VERIGO, G.S., inzhener.

Organization and mechanization of earthwork in construction of the Moscow State University. Mekh.stroi. 11 no.6:6-8 Je '54. (MLRA 7:6)
(Earthwork) (Moscow University)

USSR/Miscellaneous—Woodworking Machine VERIGO, G. S.

Card 1/1

Author : Verigo, G. S., Engineer

Title : Mechanization of the manufacture of curved portions of stair railings

Periodical : Mekh. Stroi. 11/2, 31-32, February 1954

Abstract : Formerly the curved portions of hand rails were made by hand. A machine has been developed which makes these rails automatically. The author explains the working of the machine. Drawings; Illustrations.

Institution : .....

Submitted : .....

...igo, G. S. (Engineer)

Subject : USSR/Engineering AID - P-1

Card : 1/1

Author : Verigo, G. S., Engineer

Title : The organization of horizontal and vertical transportation (Experiences in building the Moscow State University)

Periodical : Sbor. mat. o nov. tekh. v stroi. 2, 1-5, 1954

Abstract : Described are: the organization, machinery and equipment (sidings, cranes, trucks, winches, etc.) for transporting building materials to the place of construction and lifting them up to the construction platforms (for erection of the new Moscow State University buildings). Photos; graphs.

Institutions: Not given.

Submitted : No date.

VERIGO, G. S.

USSR/Miscellaneous-Construction

Card 1/1

Authors : Verigo, G. S., Engineer

Title : Use of sectional ferroconcrete in the construction of the Moscow State University.

Periodical : Mekh. Trud. Rab., 2, 40 - 43, March 1954

Abstract : This report describes the experience of using large ready-made sectional ferroconcrete elements for the construction of the Moscow State University. During the four year period of its construction 470 thousand m^3 of concrete and ferroconcrete were used. Out of this amount 250 thousand m^3 alone were used for the massive ferroconcrete foundations under the buildings, roads etc., and 220 thousand m^3 for above-ground constructions. Photos of the construction work are included.

Institute : ....

Submitted : .....

VERIGO, G.S., inzhener; SHPEYER, V.N., inzhener.

Preparation and assembly of large-block cornices in the construction at Moscow State University. Mekh.stroi. 10 no.12:26-27 D '53. (MLRA 6:11)
(Cornice work)

VERIGO, G.S., inzhener.

Small cable cranes. Mekh.stroi. 10 no.10:20-22 O '53. (MLRA 6:9)
(Cranes, derricks, etc.)

VERIGO, G.S., inzhener.

Organization of horizontal and vertical conveyance; experience building the Moscow State University. Sbor.mat.o nov.tekh.v stroi. 16 no.2:1-5 '54. (MLRA 7:5)
(Hoisting machinery)

VERIGO, G.S., inzhener.

Use of prefabricated reinforced concrete in building the Moscow State University. Mekh.trud.rab. 8 no.2:40-43 Mr '54. (MLRA 7:3)
(Moscow--Precast concrete construction)
(Precast concrete construction--Moscow)

VERIGO, G.S., inzhener.

Mechanized production of stairway handrail wreaths. Mekh.stroi.11 no.2:31-32 F '54. (MLRA 7:1)
(Woodworking machinery)

KOMAROVSKIY, A.N., prof., doktor tekhn. nauk; VERIGO, G.S., inzh., nauchnyy red.; YUDINA, L.A., red. izd-va; TOKER, A.M., tekhn. red.

[Organization of construction of Moscow University.] Organizatsiia rabot na stroitel'stve Moskovskogo gosudarstvennogo universiteta imeni M.V. Lomonosova. Moskva, Gos. izd-vo lit-ry po stroit., arkhit. i stroit. materialam, 1958. 327 p. (MIRA 11:10)
(Moscow University) (Building)

BER, A.Ye., inzhener; VERIGO, G.S., inzhener.

Cable hoists used in building Moscow University. Mekh.stroi.11 no.2:29-31 F '54. (MLRA 7:1)

(Hoisting machinery)

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1. VERIGO, K. I.

2. USSR (600)

"Giproredmet". "New Equipment in Concentration Plants of the US" Tsvet. Met. 14, No. 12, December 1939.

9. [redacted] Report U-1506, 4 Oct 1951

POTEMKIN, K.V.; SPITSYN, A.; SHUGAYEV, I.A.; FOL'KIN, S.I.; SAKSAGANSKAYA, I.P.; ANDREYEV, P.I.; POLYAKOV, R.M., red.; VERIGO, K.M., red.

[Production of zirconium and hafnium in capitalist countries] Proizvodstvo tsirkoniia i gafniia v kapitalisticheskikh stranakh. Moskva, Pts.1-3. 1962. 157 p. (MIRA 17:4)

1. Moscow. TSentral'nyy institut informatsii tsvetnoy metallurgii.

BELASH, Foka Nikiforovich, prof., doktor tekhn. nauk; VERIGO, K.N., otv. red.; KACHALKINA, Z.I., red. izd-va; IL'INSKAYA, G.M., tekhn. red.

[Flotation of iron ores]Flotatsiia zheleznykh rud. Moskva, Gosgortekhizdat, 1962. 210 p. (MIRA 15:11)
(Flotation) (Iron ores)

VERIGO, K.M., inzhener.

The Three Kids manganese and lead flotation plant; (from "Engineering and Mining Journal" no. 11, 1955). Gor.zhur. no.5:49-50 My '56. (MLRA 9:8)
(United States--Flotation) (Manganese ores)

SOV/137-58-7-14486

Translation from: Referativnyy zhurnal, Metallurgiya, 1958, Nr 7, p 80 (USSR)

AUTHORS: Verigo, K.N., Kochergiha, D.G.

TITLE: Extraction of Rare and Nonferrous Metals From Ores and Middlings by Means of Selective Solvents (Primeneniye selektivnykh rastvoriteley dlya izvlecheniya iz rud i promezhutochnykh produktov tsvetnykh i redkikh metallov)

PERIODICAL: Byul. tsvetn. metallurgii, 1957, Nr 24, pp 10-15

ABSTRACT: A description of the operational principle of extraction towers of various types is given, together with a flow sheet of a counter-current extraction process in open vats. The cost of extraction of various metals is quoted on the basis of data of foreign practice. The authors describe a number of systems for separation and extraction of metal by means of extraction processes performed with the aid of selective solvents.

L.P.

1. Ores--Processing 2. Metals--Solvent extraction 3. Solvent extraction--Equipment 4. Towers (Chemistry)--Performance

Card 1/1

136-4-20/23

AUTHOR: None given.

TITLE: New technical literature (Novaya tekhnicheskaya literatura).

PERIODICAL: "Tsvetnye Metally"(Non-ferrous Metals) 1957, No.4, pp. 84 - 87 (U.S.S.R.)

ABSTRACT: This is an annotated list, compiled from material supplied by the Central Scientific-technical Library of the Ministry of Non-ferrous Metallurgy of the U.S.S.R. The following Russian articles and books are included:

Beneficiation:

K.N. Verigo, "Crushing and grinding equipment in capitalist countries" (Drobilno-razmolnoe oborudovanie v kapitalisticheskikh stranakh), Nauchno-tekhn. O-vo Tsvetnoy Metallurgii, Moscow, 1956, 159 pages. (Book)

N.N. Shumilovskiy and L.V. Mel'tser "Engineering methods for the calculation of consumption meters working on the "marked molecules" method", Priborostroenie, 1956, pp.4-8. No.11(Article)

Metallurgy:

A.F. Alabyshev and A.G. Morachevskiy "Thermo-dynamic properties of the system sodium-cadmium", Dokl.Ak.Nauk SSSR, 1956, pp. 369-71, Vol. III, No.2. (Article)

"Geology, mining, metallurgy, Collected Works, No.13" (Geologiya, gornoe delo, metallurgiya. Sbornik Nauchnykh Trudov No.13) Metallurgizdat, Moscow, 1956, 416 pages. (Book)

Card 1/4

New technical literature (Cont.)

136-4-20/23

B.V. Deryagin and S.S. Dukhin "Settling of aerosol particles on a phase-change surface. Diffusional method of dust catching. Importance in medicine." Dokl. Ak. Nauk SSSR, 1956, pp.613-616. Vol. 111, No.3. (Article)

"Reports of the Academy of Sciences of the Kazakhstan SSSR, mining, metallurgy, building and building materials series." (Izvestiya Akademii Nauk Kazakhskoy SSR, seriya gornogo dela, metallurgii, stroitelstva i stroymaterialov (po razdelu metallurgii) No.9, Alma Ata, 1956, 111 pages. (Book)

M.A. Lur'e "Refractories in non-ferrous metallurgy" (Ogneupory v tsvetnoy metallurgii), Metallurgizdat, Moscow, 1956, 151 pages. (Book)

A.F. Ogarkov, "Thermal conductivity of Ural refractory materials", V.Kh. Trudy Uralskogo Politekhn., Sverdlovsk, 1956, pp. 5 - 22. (Article)

N.F. Razina, M.T. Kozlovskiy and V.V. Stender, "Disruption of lead anodes during electrolysis of sulphuric acid solutions", Dokl. Ak. Nauk SSSR, 1956, pp. 404-406, Vol.111, No.2 (Article)

Card 2/4

I.G. Ryss, "Chemistry of fluorine and its inorganic compounds" (Khimiya ftora i ego neorganicheskikh soedineniy), Goskhimizdat, Moscow, 1956, 718 pages. (Book)

New technical literature. (Cont.) 136-4-20/23

I.S. Stepanov, "Rare Metals" (Redkie Metally), MTsM SSSR TsIIN, Moscow, 1956, 58 pages. (Book)

Machining of Metals. Metallurgy:

M.E. Blanter, L.I. Kuznetsov, M.G. Lozinskiy and E.A. Sinodova, "Influence of alloying elements on the hardness of nickel alloys at high temperatures", Isvestiya Akad. Nauk SSSR, Otd. Tekh. Nauk, 1956, pp. 88 - 95. No.12, (Article)

S.Ya. Veyler, V.I. Likhtman and P.A. Rebinder, "Mechanism of the action of lubricants in the working of metals by pressure", Dokl. Ak. Nauk SSSR, 1956, pp. 985 - 988. Vol.110 No.6 (Article)

R.B. Golubtsova and L.A. Mashkovich, "Investigation of metallic compounds in nickel alloys containing aluminium." Dokl. Ak.Nauk SSSR, 1956, pp. 824-826. Vol.111, No.4. (Article)

M.I. Kochnev, "Correspondence of the temperatures of anomalous change in the properties of copper, its compounds and alloys" Isvestiya AN SSSR, Otd. Tekh. Nauk, 1956, No.12, pp.96-105, No.12. (Article)

D.I. Layner and Potemkin, A.Ya. "Rational method for annealing aluminized nickel". TsIIN MTsM SSSR, 1956, pp. 19-21.(Article)

Card 3/4 Tarnovskiy, I.Ya., Pozdeev, A.A., and Lyashkov, V.B. "Deformation of metals during rolling" (Deformatsiya metalla pri prokatke), Metallurgizdat, Sverdlovsk, 1956, 287 pages. (Book)

New technical literature. (Cont.) 136-4-20/23

Usach, M.Ya. "Hydraulic presses П 646, П648 and П664 for pressing non-ferrous metal sections." Tekhniko-ekonomicheskoy Informatsii, 1956, pp. 8 - 10. Vol.11, No.11. (Article)

Economics:

A.I. But, "Planning and economics of non-ferrous metallurgical enterprises." (Planirovanie i ekonomika predpriyatiy tsvetnoy metallurgii), Metallurgizdat, Moscow, 1956, 270 pages. (Book)

AVAILABLE:

Card 4/4