L 27590-66 EWT(m)/EWP(t)/ETI IJP(c) JD

ACC NR: AR6004305 SOURCE CODE: UR/0276/65/000/009/G009/G009

AUTHOR: Volokhonskiy, L. A.; Nikulin, A. A.; Bochkov, D. A.; Bortnichuk, M. I.

TITLE: Study of melting hydrodynamics in a vacuum arc furnace by the stimulating method

SOURCE: Ref. zh. Tekhnologiya mashinostroyeniya, Abs. 9G75

REF SOURCE: Tr. Vses. n.-i. in-ta elektroterm. oborud., vyp. 1, 1965, 66-77

TOPIC TAGS: vacuum arc furnace, vacuum melting, hydrodynamics, molten metal, magnetic field, solenoid

ABSTRACT: The distribution of a current in the molten metal of a vacuum arc furnace is studied, and the forces responsible for the metal rotation: the vertical magnetic field of solenoid and the horizontal component of the arc current. The measurement of hydrodynamic pressures on the molten metal model permitted determination of their distribution along the bath diameter and depth and determination of the melt rotation rate. The most effective stirring of metal is observed in the zone of the anodic spot. Some redistribution of pressures and rates of rotation due to friction forces takes place. As far as the intensity of mixing in presence of a solenoid is concerned, the best effect is obtained when the current cable is attached to the upper edge of the crystallizer, in which case the horizontal component of the current has the highest magnitude. In melting steel tending to ghost, it is advisable to use

Card 1/2 UDC: 66.047.2: 621.365.2.001.5

L 27690-66

ACC NR: AP6004305

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a bifilar cable with an attachment to the upper flange of the crystallizer. In this case, in the absence of a solenoid there is no rotation of the metal. It is possible to use a solenoid on a steel crystallizer. In designing them correction for the screening effect, which is determined by modeling, should be made. O. Prove

SUB CODE: 11/ SUBM DATE: none

Card 2/2 CC

L 46776-66 EWT(d)/EWT(m)/EWP(v)/EWP(t)/ETI/EWP(k)/EWP(h)/EWP(l) JD/WW/JG

ACC NR: AR6014548 SOURCE CODE: UR/0196/65/000/011/N003/N003

35
B

AUTHOR: Volokhonskiy, L. A.; Nikulin, A. A.; Bochkov, D. A.; Bortnichuk, N. I.

TITLE: Investigation of the hydrodynamics of a melt in a vacuum arc furnace by a simulation method

SOURCE: Ref. zh. Elektrotekhnika i energetika, Abs. 11N10

REF SOURCE: Tr. Vses. n.-i. in-ta elektroterm. oborud., vyp. 1, 1965, 66-77

TOPIC TAGS: arc furnace, vacuum furnace, melt hydrodynamics

ABSTRACT: Current distribution in a liquid bath of a vacuum arc furnace has been studied, and the causes of metal rotation have been determined; they are: vertical magnetic field of solenoid and horizontal component of arc current. By measuring hydrodynamic pressures in a liquid-metal model, the pressure distribution over the diameter and depth of the bath were found and the melt rotation speeds were determined. The metal is agitated particularly vigorously in the anode-spot zone, some redistribution of pressures and velocities being effected by the forces of friction. From the viewpoint of intense mixing, in a solenoid-type design, the current-supply conductor to the upper flange of the crystallizer is more efficient because the horizontal current component is greater. Twelve figures. Bibliography of 4 titles. O. Provs [Translation of abstract]

SUB CODE: 13, 09

Card 1/1 UDC: 621.365.22.001.5:66.041.82:538.12:532.5:54-143

ACC NR: AR6020939 SOURCE CODE: UR/0137/66/000/002/V061/V061

AUTHOR: Shcherbakov, A. I.; Nikulin, A. A.; Okorokov, G. N.; Bochkov, D. A.; Boyarshinov, V. A.; Volokhonskiy, L. A.; Polyakov, A. I.

TITLE: The effect of the electric power parameters on a vacuum arc furnace on ingot crystallization conditions

SOURCE: Ref. zh. Metallurg, Abs. 2V396

REF SOURCE: Elektrotermiya. Nauchno-tekhn. sb., vyp. 45, 1965, 34-37

TOPIC TAGS: vacuum arc furnace, alternating magnetic field, constant magnetic field

TRANSLATION: An investigation was made of the effect of electric parameters of a vacuum arc furnace on crystallization conditions of an ingot, as well as the possibility of influencing the crystallization process with the use of constant and alternating magnetic fields. An analytic and experimental correlation between these parameters and the crystallization of an ingot was determined. The relative depth h/D of a liquid wall was equivalent for molds of different dimensions by maintaining the equality I/D = constant. The value I/D suitable for a metal with a small 2-phase region extension may serve as the criterion for selection of the electrical melting cycle. For a metal with an extended 2-phase region it is necessary to decrease the ingot diameter and to decrease the operating current as much as possible in order to prevent segrega-

Card 1/2 UDC: 621.365.22-982.001.5

ACC NR: AR6020939

tion defects. The use of an alternating magnetic field prevents structural defects, characteristic of ingots melted in a constant magnetic field, and is a promising method for arc stabilization during vacuum arc melting. 3 figures. G. Lyubimova.

SUB CODE: 13 ,20

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Card 2/2

ACC NR: AR6027498 SOURCE CODE: UR/0137/66/000/004/V051/V051

AUTHOR: Nikulin, A. A.; Bochkov, D. A.; Filimonova, M. A.; Artem'yev, V. D.; Volokhonskiy, L. A.

TITLE: Experimental study of ingot heat balance during the remelting of a consumable electrode

SOURCE: Ref. zh. Metallurgiya, Abs. 4V348

REF SOURCE: Elektrotermiya. Nauchn-tekhn. sb., vyp. 47, 1965, 42-43

TOPIC TAGS: vacuum arc furnace, heat balance

TRANSLATION: A special crystallizer with graded walls was constructed for the experiment. It was established that the heat transfer rate through the bottom plate in a vacuum arc furnace was $0.42 \cdot 10^6$ kcal/m^2·hr when the bottom of the crystallizer was covered with a plate. In the contact zone of the ingot, the heating rate on the walls of the crystallizer was about $(0.3-0.8) \cdot 10^6$ kcal/m^2·hr. During steady arc burning, the heating rate on the crystallizer walls above the level of the metal was about $(0.4-0.6) \cdot 10^6$ kcal/m^2·hr. Above the flux surface (during cycle without arcing), the heat transfer rate did not exceed $0.2 \cdot 10^6$ kcal/m^2·hr. In the stable regime, heat output to the crystallizer walls was produced by means of an ordinary water cooling system with water flow in the crystallizer. For a water velocity greater than 1 m/sec, a

Card 1/2 UDC: 669:621.365.22-982.001.5

ACC NR: AR6027498

cooling convection cycle can be produced without the danger of the heavy precipitation of hard salt. The specific heat transfer rate can be decreased somewhat by using lower water velocities, as well as by increasing the crystallizer wall thickness. 4 figures, 1 table.

SUB CODE: 11,13

Card 2/2

NIKULIN, A. D.

Nikulin, A. D. -- "Author's Abstract of Dissertational Work on the Subject "Rendering More Precise Certain Fundamental Parameters of the Process of Rolling in Smooth Rollers with Gripping Angles Exceeding the Angle of Friction," Presented in Competition for the Academic Degree of Candidate in Technical Sciences." Min Higher Education USSR, Moscow Inst of Non-ferrous Metals and Gold imeni M. I. Kalinin, Moscow, 1955 (Dissertation for the Degree of Candidate in Technical Sciences)

SO: Knizhnaya Letopis', No. 23, Moscow, Jun 55, pp 87-104

PERLIN, I.L., professor; NIKULIN, A.D., kandidat tekhnicheskikh nauk.

Rolling with large nip angles and the feasibility of intensified hot rolling of copper and copper-zinc alloys. Tsvet.met.29 no.12: 64-69 D '56. (MLRA 10:2)
(Rolling (Metalwork)) (Copper) (Copper-zinc alloys)

18.5000

78321
SOV/89-8-3-6/32

AUTHORS: Perlin, I. L., Nikitin, I. D., Fedorchenko, V. A., Nikulin, A. D., Reshetnikov, N. G.

TITLE: Some Force and Deformation Characteristics of Working Uranium by Forces of Pressure

PERIODICAL: Atomnaya energiya, 1960, Vol 8, Nr 3, pp 219-227 (USSR)

ABSTRACT: The choice of optimum thermomechanical conditions for working of uranium is complicated due to possibilities of allotropic transitions resulting in modifications having different plasticity and strength. Due to its high resistance to deformation and small heat capacity, uranium is often heated considerably during extrusion and rolling and changes from α into β phase. Deforming samples from 90 to 60 mm at 420° C by means of one stroke of a friction press, the temperature of the metal rises from 90 to 100° C. Strong oxidation also influences the temperature change in the metal during working. To enable the determination of conditions

Card 1/17

for working of uranium by forces of pressure, the authors investigated the rolling, pressing, drawing, and die forging of uranium. Figure 1 shows the influence of the temperature on the maximum permissible reduction per pass of 15-mm-wide cast uranium samples. Uranium is exceptionally sensitive to nonuniform distributions of deformations during rolling. For example, fine uranium strips (0.05-0.20 mm) may be obtained without fracture; reduction per pass 80-85%. The augmented plasticity is explained as due to negligible nonuniformities in the distribution of deformation in the rolled strip. However, when rolling cold thin plates with variable rolling direction, the resulting nonuniformities in deformations cause fracture of the metal. Figure 2 shows the results of investigations of the variation with temperature of the mean specific pressure p_{cp} of the metal on the rollers. The temperature increase in the metal during rolling at $t = 630^{\circ}$ C causes a transition into

Some Force and Deformation Characteristics of Working Uranium by Forces of Pressure

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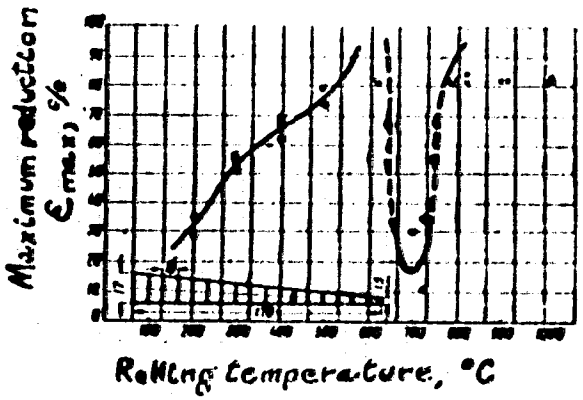

Fig. 1. Influence of temperature on rollability of uranium: (x) no fracture of samples was observed.

Card 3/17

Some Force and Deformation Characteristics

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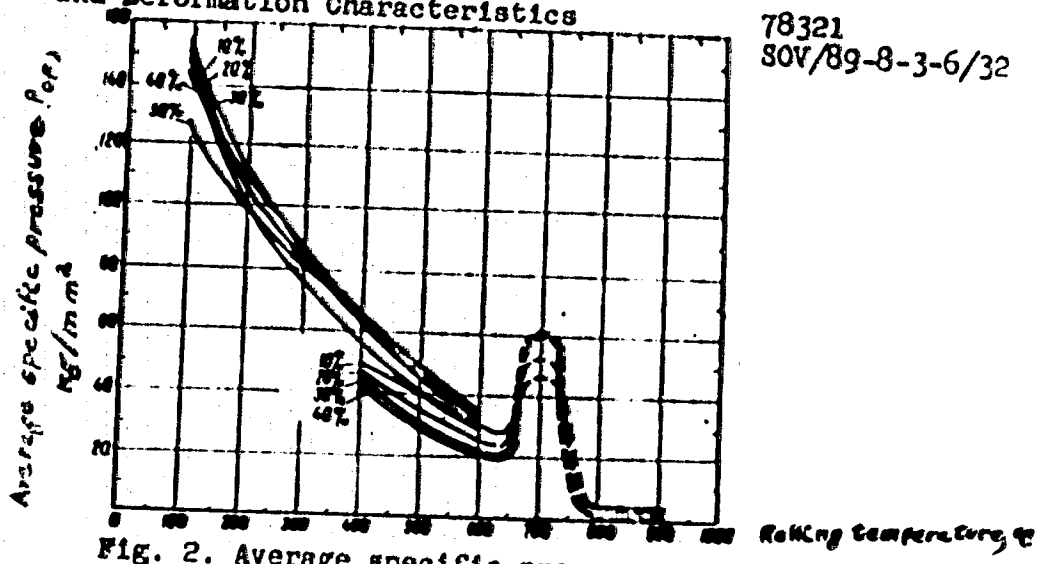

Fig. 2. Average specific pressure of metal on rollers versus the temperature: ——first series of tests; - - -second series of tests.

Card 4/17

the β phase which shows up as staggered oscillograms. The authors also investigated the mean specific pressure as function of the reduction at various temperatures and also as function of the initial state of uranium samples. They compared the results with the analytic equation of A. I. Tselikov (Prokatnye stany (Rolling Mills) M., Metallurgizdat, 1947) and found a satisfactory agreement:

$$p_{cp} = k\frac{2(1-\varepsilon)}{\varepsilon(\delta-1)}\left(\frac{h_H}{H}\right)\left[\left(\frac{h_H}{H}\right)^{\delta}-1\right].$$

where $\varepsilon = (H - h)/H$ is reduction; h_H, height of strip in the neutral cross section; $\delta = \mu\sqrt{2D/\Delta h}$ (μ = coefficient of friction; D = diam of rollers); $k = 1.15\, n_y\, \sigma_s$ (n_y = coefficient of strengthening; σ_s = yield limit in case of large plastic deformations). The value of n_y is function of the reduction

and temperature, and varies between 1 and 1.6. Figure 4 shows the absolute widening $\Delta b = B_1 - B$ of a square sample 21 x 21 x 180 mm with rollers 220 mm in diam as function of rolling temperature. The maximum of the curves is connected to the maximum of the friction coefficient which in the 900-950° C temperature region is equal to 0.4-0.45. The authors note that uranium can be extruded in the temperature interval between 250 and 1,000° C, and they discuss in detail the extrusion characteristics of γ- and α-uranium. They emphasize that during extrusion the uranium should not come in contact either with air or steel tools. Tools made from heat-resistant alloys, carbides, and ceramics with lubricants are used for extrusion of α-uranium. While extrusion velocities of γ-uranium are practically unrestricted, α-uranium is extruded using velocities between 1 and 400 mm/sec. The authors investigated further the extrusion stresses as function of extrusion ratio, temperature (see Fig. 6), and production mode of the sample. The extrusion stress depends linearly on

Some Force and Deformation Characteristics of Working Uranium by Forces of Pressure

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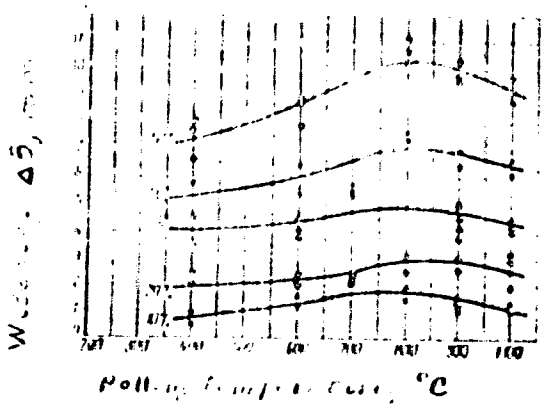

Fig. 4. Absolute widening of sample versus rolling temperature.

Card 7/17

Some Force and Deformation Characteristics of Working Uranium by Forces of Pressure

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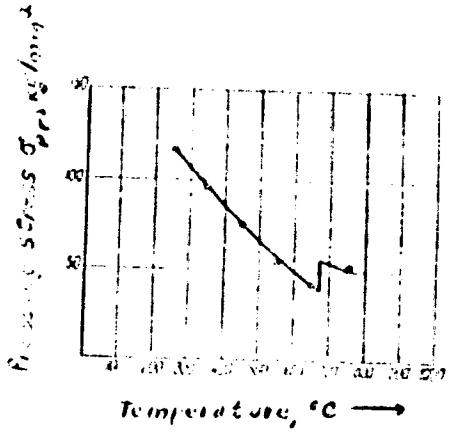

Fig. 6. Pressing stresses of uranium versus temperature.

Card 8/17

the integral index of the degree of deformation $i = \ln\mu$, and Figure 8 represents a nomogram whose cross-hatched region shows the influence of the scale-factor on the pressing stress when the ratio of the container diameters equals 5. The tests also showed that one can neglect the forces of contact friction. As seen from the nomogram, the lines pass through the coordinate origin, and therefore, the extrusion stresses σ_{pr} can be determined from the equation:

$$\sigma_{pr} = \frac{P_M + T_M}{F_n} = M_{pr} i,$$

In analogy with Young's modulus the authors call the coefficient M_{pr} the modulus of the extrusion stress. Figure 9 shows the variation of this modulus with temperature. Extrudability i_{pr} of the uranium metal, defined as:

Some Force and Deformation Characteristics of Working Uranium by Forces of Pressure

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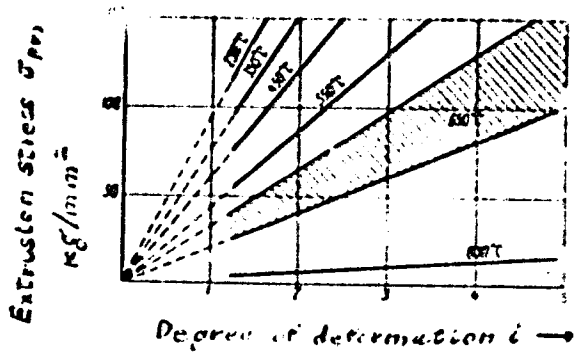
SOV/89-8-3-6/32



Card 10/17

Fig. 8. Nomogram for determination of extrusion stresses.

Some Force and Deformation Characteristics of Working Uranium by Forces of Pressure

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SOV/89-8-3-6/32

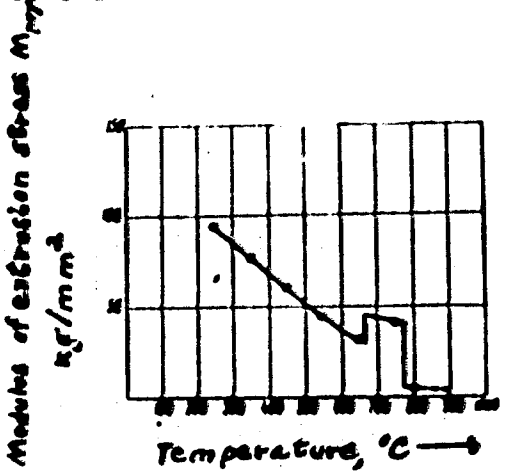

Fig. 9. Modulus of extrusion stress of uranium versus temperature.

Card 11/17

$$i_{\sigma} = \frac{\sigma_{pr}}{\sigma_{fr}}.$$

is shown in Fig. 10, where the upper curve is the variation of the maximum extrudability under a pressure of 150 kg/mm^2, and the lower curve is obtained using σ_{pr} = 15 kg/mm^2. γ-Uranium has extrudability above 35. The authors discuss further the structure of the products and Table 2 exhibits the mechanical properties of the extruded uranium. The authors discuss various lubricants used during drawing, and present in Table 3 and on Fig. 11 some results concerning drawing of uranium. With heating one can obtain uranium wires 2 mm in diam and less. Modification of heating condition allows the production of 0.1-mm uranium wires. Uranium can be die-forged in the α and γ temperature regions with ram velocities up to 6,000-7,000 mm/sec. Any transition into the β region due to overheating will cause

Some Force and Deformation Characteristics of Working Uranium by Forces of Pressure

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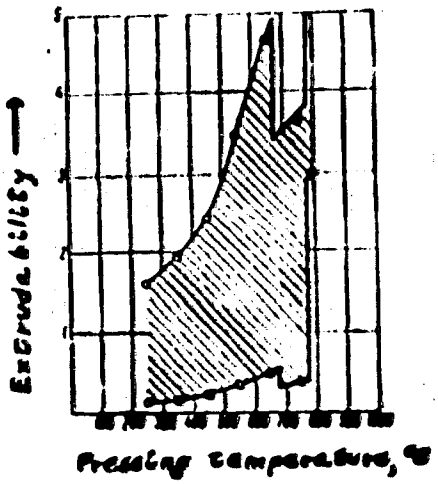

Fig. 10. Extrudability of uranium versus temperature.

Card 13/17

Table 2. Mechanical properties of extruded uranium. (a) Initial state of uranium; (b) tensile strength; (c) elongation; (d) reduction of area; (e) extruded at; (f) extruded in α -phase with subsequent hardening from β-phase.

a	b kg/mm²	c %	d %
e, 350° C . . .	143,0	9,2	8,9
e, 730—750° C .	61,3	9,2	4,1
e, 900° C . . .	80,9	7,6	4,0
f	75,0	7,0	6,8

Note: (1) Each figure represents the arithmetic mean value from three measurements. (2) Small Gagarin-type samples were used during tests.

Card 14/17

Table . Dr versus drawing ratio. (a) Initial state of uranium bar; (b) initial diam; (c) final diam; (d) drawing ratio per pass; (e) pulling force of drawing; (f) drawing stress; (g) annealed; (h) preliminarily deformed.

a	b, d_0 (mm)	c, d (mm)	d, δ (%)	e, P_{dr} (kg)	f, σ_{dr} (kg/mm²)
g	11,45	10,7	12,7	1050	21,7
h	10,3 9,5	9,8 8,5	10,0 20	1700 2850	32,5 47

Card 15/17

Some Force and Deformation Characteristics of Working Uranium by Forces of Pressure

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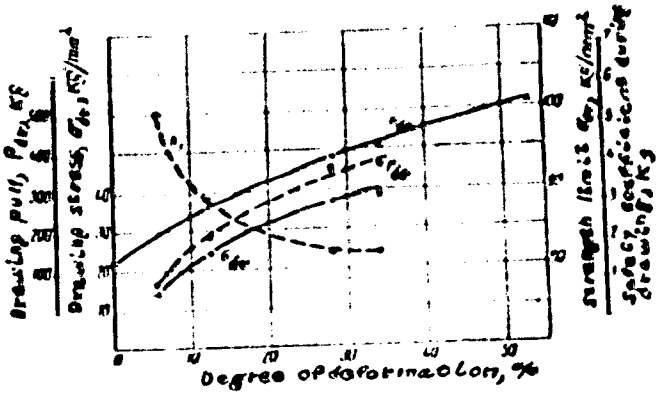

Fig. 11. Relationship between drawing parameters and drawing ratio per pass.

Card 16/27

Some Forces and Deformation Characteristics of Working Uranium by Forces of Pressure

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crack formation. The authors also discuss briefly the conditions for flat die forging of α and γ uranium. There are 11 figures; 4 tables; and 5 Soviet references.

SUBMITTED: February 23, 1959

Card 17/17

PHASE I BOOK EXPLOITATION 621

Nikulin, Aleksandr Georgiyevich

Peredovyye metody prokatki besshovnykh trub (Modern Methods of Rolling Seamless Pipes) Kiyev, Gostekhizdat, 1957. 31 p. (Series: Obmen peredovym opytom) 5,000 copies printed.

Ed.: Samokhvalov, Ya.; Tech. Ed.: Novik, A.

PURPOSE: The booklet is intended for foremen and skilled workers in pipe rolling shops equipped with Pilger mills.

COVERAGE: The booklet describes advanced work methods used by Pilger mill machinists at the Dnepropetrovsk Plant imeni K. Libknekht. No personalities are mentioned. There are no references.

TABLE OF CONTENTS:

Card 1/2

AVAILABLE: Library of Congress

Card 2/2

GO/ad
9-15-58

YENIKEYEV, Kh.M.; KOZLOV, D.N.; KRUZHILIN, M.P.; MEZHUYEV, B.N.; MALCHAN, A.G.; NIKULIN, A.I.; PANKIN, V.A.; SHAVIN, G.F.; LESNICHENKO, I.I., red. izd-va; SMIRNOVA, G.V., tekhn. red.

[Metal-cutting machines; kinematic adjustment of metal-cutting machines] Metalloreshushchie stanki; kinematicheskaia nastroika metalloreshushchikh stankov. Pod red. A.G.Malchana. Moskva, Mashgiz, 1962. 179 p. (MIRA 16:2)

1. Moscow. Vsesoyuznyy zaochnyy mashinostroitel'nyy institut. Kafedra "Metalloreshushchie stanki i instrumenty." 2. Prepodavateli kafedry "Metalloreshushchiye stanki i instrumenty" Vsesoyuznogo Zacchnogo Mashinostroitel'nogo instituta (for all except Lesnichenko, Smirnova).
(Metal cutting) (Machinery, Kinematics of)

NIKULIN, Aleksandr Prokop'yevich, sborshchik metallokonstruktsiy; SKROBACHEV, M.P., inzh., retsenzent; PINTUSOV, I.M., inzh., red.; KUZNETSOV, A.P., inzh., red.; DUGINA, N.A., tekhn.red.

[Efficient methods of assembling metal structures] Peredovye priemy sborki metallokonstruktsii. Moskva, Gos.nauchno-tekhn.izd-vo mashinostroit.lit-ry, 1958. 41 p. (MIRA 12:3)

1. Uralmashzavod (for Nikulin).
(Building, Iron and steel)

NIKULIN, A. S.

"Project of New Tacheometric Tables," by A. S. Nikulin, Geodeziya i Kartografiya, No 2, 1956, pp 47-52

The performed chronometering of computation of 100 excesses and 25 horizontal extensions of lines by means of six of the most commonly used tacheometric tables showed that the tables proposed by the author are the most suitable. The tables are compiled according to the following formulas

$$h = 1/2\ D \sin 2\nu\ ;\ d = D \cos^2 \nu$$

The most rational limits of D and ν for the Soviet Union are established. The tabulation for plains and for rugged regions is described and examples of application are presented.

Sum 1239

MIKULIN, Anatoliy Sergeyevich; MASLOV, A.V., redaktor; KOMAR'KOVA, L.M., redaktor izdatel'stva; ROMANOVA, V.V., tekhnicheskiy redaktor

[Tachometric tables] Takheometricheskie tablitsy. Moskva, Izd-vo geodez.lit-ry, 1957. 314 p. (MLRA 10:10)
(Tachymeter--Tables)

NIKULIN, Anatoliy Sergeyevich; MASLOV, A.V., red.; KOMAR'KOVA, L.M., red. izd-va; [illegible]OVA, V.V., tekhn. red.

[Tachymetric tables] Takheometricheskie tablitsy. Izd.2. Moskva, Izd-vo geodez. lit-ry, 1960. 314 p. (MIRA 14:8)
(Surveying—Tables, etc.)

NIKULIN, A.S.

Technical leveling with rods graduated in decimeters. Geod. i kart. no.2: 33-37 F '63. (MIRA 16:3)

(Leveling)

NIKULIN, Anatoliy Sergeyevich; SMIRNOV, Aleksandr Sergeyevich; YUNUSOV, Al'bert Gamatovich; MASLOV, A.V., prof., red.

[Methodological instructions on organizing and conducting initial field training in surveying] Metodicheskie ukazaniia po organizatsii i provedeniiu pervoi uchebnoi geodezicheskoi praktiki. Moskva, Nedra, 1965. 115 p. (MIRA 18:11)

NIKULIN, A.V.; YAGOFAROV, R.Kh.

Some considerations concerning the formation of local structures of the lower Carboniferous. Uch.zap.Kaz.un. 116 no.5:198-200 '56. (MLRA 10:4)

1. Kafedra geologii nefti i gaza.
(Tatar A.S.S.R.--Geology, Structural)

NIKULIN, A.V.

Conditions governing the accumulation of sediment in the terrigenous formation of the lower Carboniferous of the southeastern Tatar A.S.S.R. Uch. zap. Kaz. un. 117 no.9:291-292 '57.
(MIRA 13:1)

1.Kazanskiy gosudarstvennyy universitet im. Ul'yanova-Lenina. Kafedra geologii nefti i gaza.
(Tatar A.S.S.R.--Geology, Stratigraphic)

NIKULIN, A.V.

Oil potential of terrigeno , sediments of the Lower Carboniferous in the southeastern Tatar A.S.S.R. Uch. zap. Kaz. un. 117 no.9: 293-296 '57. (MIRA 13:1)

1.Kazanskiy gosudarstvennyy universitet im. V.I. Ul'yanova-Lenina. Kafedra geologii nefti i gaza.
(Tatar A.S.S.R.--Petroleum--Geology)

NIKULIN, A.V., Cand Geo Min Sci -- (diss) "Structure and petroleum [redacted] of the lower part of [redacted] coal deposits in southeast Tatarskaya ASSR." Kazan', 1958, 27 pp (Kazan' Order of Labor Red Banner State Univ im V.I. Ul'yanov-Lenin) (KL, 29-58, 129)

S/003/60/000/007/001/002
B027/B076

AUTHORS: Nikulin A. V., Sharonov L. V.

TITLE: Structure and oil productivity of Upper Tournaisian and Lower Visean deposits of southeastern Tatariya

PERIODICAL: Geologiya nefti i gaza, no. 7, 1960, 15-18

TEXT: In addition to the very large Devonian deposits in southeastern Tatariya there is a number of smaller oil deposits in the Upper Tournaisian and Lower Visean deposits. The Upper Tournaisian deposits consist of grey or greyish-brown limestone which is porous and saturated with oil; remains of marine fauna are present. Various foraminifera suggest that the Upper Tournaisian deposits were formed in the Kizel age. The Stalinogorskiy horizon consists mainly of sandstone mixed with clay. The lower boundary of the Tul'skiy horizon is not always clearly outlined; in the southeast the terrigenous Stalinogorskiy deposits are supplanted by carbonate accumulations with Tula fauna, of which large brachiopodes are characteristic; in the northwest terrigenous beds are present in the Tul'skiy horizon and completely replace the carbonates on the Popovskiy Plateau. The Tul'skiy

Card 1/2

horizon reaches a thickness of 30 m in the far southeast of Tatariya and diminishes gradually to 8-10 m towards the west and northwest. All these formations are oil bearing. The collective properties of the limestones of the Upper Tournaisian bed are not constant and depend upon the porosity; sometimes, however, the entire bed is oil bearing. In the Stalinogorskiy horizon the reservoir rocks are sandstone and silt with varying porosity. These deposits do not contain such large occurrences as the Devonian beds of the same region and are sometimes of a very simple structure. In the Shegurchinskaya, Shugurovskaya, and other structures lithological traps are present. The existence of a number of oil deposits which are proven to be of industrial size has been so far established in the lower Carboniferous strata. Further prospecting is still necessary for most of them; on the basis of previous experience it is expedient to carry out trial drilling for oil from the lower pit coal layer in a closer network than in the case of Devonian deposits. This necessity is often conditioned by the small size of the occurrences and the complicated structure. There are 2 figures and 4 Soviet-bloc references.

ASSOCIATION: TatNII (Tatar Scientific Research Petroleum Institute)

NIKULIN, A.V.; DEDOV, S.G.; DANILOVA, L.A.; DANILEVICH, A.A.; [illegible], V.A.

Prospecting for oil within the limits of the platform area of the Kama Valley portion of Perm Province. Trudy VNIGNI no.34:101-134 '63. (MIRA 17:4)

IVANOV, N.N.; NIKULIN, A.V.

Characteristics of the development of the root system in some corn varieties and hybrids. Agrobiologia 5:786-787 S-O '64. (MIRA 17:11)

1. Nauchno-issledovatel'skiy institut sel'skogo khozyaystva TSentral'no-chernozemnoy polosy imeni Dokuchayeva.

NIKULIN, B. F.

NIKULIN, B. F.: "The power engineering of the deep working of soils [illegible] T. S. Mal'tsev's method." Min Higher Education USSR. Chelyabinsk Inst of the Mechanization and Electrification of Agriculture. Chelyabinsk, 1956. (Dissertation for the Degree of Candidate in Technical Sciences).

SO: Knizhnaya letopis', No 23, 1956

KOSOV, A.P.; MAGAY, L.I.; NIKULIN, B.K.; PAK, M.S.; RUDAKOV, G.M.; SAYFI, E.Kh.; SERGIYENKO, V.A.; SOKOLOV, F.A.; SPIRIDONOV, P.V.; SHPOLYANSKIY, D.M.; TIKHONOVA, I., red.

[Overall mechanization and cultivation practices for cotton crops] Kompleksnaia mekhanizatsiia i agrotekhnika khlopchatnika. Tashkent, Gos.izd-vo Uzbekskoi SSR, 1964. 407 p. (MIRA 17:11)

1. Sredneaziatskiy institut mekhanizatsii i elektrifikatsii sel'skogo khozyaystva. 2. Sredneaziatskiy institut mekhanizatsii i elektrifikatsii sel'skogo khozyaystva (for all except Tikhonova).

NIKULIN, D.D., inzh.; STOLKIN, V.N., inzh.

Flame processes require careful preparation. Bezop. trudа v prom. 8 no.10:18-19 O '64. (MIRA 17:11)

NIKULIN, D.D.; KUKIN, N.V., vedushchiy redaktor; KUKHINA, E.A., tekhni-
cheskiy redaktor.

[Experience of operating petroleum refineries] Opyt raboty
neftepererabatyvaiushchego zavoda. Moskva, Gos.nauchno-tekhn.
izd-vo neft. i gorno-toplivnoi lit-ry, 1956. 71 p. (MLRA 10:6)
(Petroleum--Refining)

BONDARENKO, B.I.; NIKULIN, D.D.; SUKHANOV, V.P.; KLEYMENOVA, K.F., vedushchiy redaktor; TROFIMOV, A.V., tekhnicheskiy redaktor

[Catalytic cracking] Kataliticheskii kreking. Moskva, Gos. nauchno-tekhn. izd-vo neftianoi i gorno-toplivnoi lit-ry, 1956. 208 p. (Cracking process) (MLRA 9:9)

NIKULIN, D.D.

Contribution of efficiency promoters. Neft.khoz.34 no.4:73-74 Ap '56. (Petroleum--Refining) (MLRA 9:7)

NIKULIN, D.D.

Economy is the rule for the socialist enterprise. Neftianik 2 no.1: 28-29 Ja '57. (MLRA 10:2)

1. Glavnyy inzhener Moskovskogo neftepererabatyvayushchego zavoda. (Petroleum industry)

NIKULIN, D.D., inzh.; STOLKIN, V.N., inzh.

Analysis of the causes of traumatism in petroleum and gas refineries. Bezop. truda v prom. 8 no.12:26-28 D '64. (MIRA 18:3)

DRAVSKIKH, A.F.; DRAVSKIKH, Z. V.; KOLBASOV, V.A.;
MISEVNIKOV, G.S.; NIKULIN, D.Ye.; SHTYNGELMEYER, A.F.

Study of the radio line of excited hydrogen at a wavelength of 5 cm. using a quantum paramagnetic amplifier. Dokl. AN SSSR 163 no.2:332-334 Jl '65. (MIRA 18:7)

1. Submitted December 31, 1964.

L 1938-66 EWT(1)/FBD GW/WS-2

ACCESSION NR: AP5018742 UR/0020/65/163/002/0332/0334

AUTHOR: Dravskikh, A. F.; Dravskikh, Z. V.; Kolbasov, V. A.; Misezhnikov, G. S.; Nikulin, D. Ye.; Shteynshleyger, V. B.

TITLE: Investigation of the radio line of excited hydrogen at 5 cm wavelength, using a quantum paramagnetic amplifier

SOURCE: AN SSSR. Doklady, v. 163, no. 2, 1965, 332-334

TOPIC TAGS: radio astronomy, galaxy, galactic nebula, line intensity, line width, hydrogen line, quantum device

ABSTRACT: Since stars are more likely to have excited hydrogen than neutral hydrogen, a study of the excited-hydrogen radio lines can yield information on the structure of the galaxy. The authors describe experiments made in 1964, which confirmed the presence of such a line, plotting its profile in the Omega nebula. This was made possible by using a traveling-wave quantum paramagnetic amplifier for 5-cm wavelength, operating at 4.2K, with gain of 25 db and bandwidth 26 Mc. The radiospectrograph used for the observation was a modulation-type radiometer with triple frequency conversion and contour analyzer. Two measurements were made (in May and July). In the first the spectrum from the nebula was compared with the radiation spectrum of the earth's atmosphere and analyzed in the 5.5-Mc band, and in the

Card 1/2

L 1938-66
ACCESSION NR: AP5018742

16

second the comparison was with the radiation from A-Cygni and the analysis in the 3.5-Mc band. Similar results were obtained in both cases. A pronounced increase in the radiation from the nebula was observed in the 5763 Mc region. The radio-line intensity at the maximum is estimated at 3.8 ± 0.5% of the continuous spectrum, and the width at 50% intensity is 1.2 ± 0.3 Mc. The effect of the earth's rotation around the sun on the line position was also observed. "The authors thank S. E. Khaykin, Yu. N. Pariyskiy, D. V. Korol'kov, P. A. Agadzhanov, Ye. A. Rozenman, V. M. Turevskiy, V. P. Kosolapov, and O. N. Shipul' for useful discussions and help." This report was presented by V. A. Kotel'nikov. Orig. art. has: 4 figures.

ASSOCIATION: none

SUBMITTED: 24Dec64 ENCL: 00 SUB CODE: AA

NR REF SOV: 004 OTHER: 001

Card 2/2

GVOZDENOVIC, M.; NIKULIN, E.; ZEC, Nj; KOSORIC, D.; MILADINOVIC, Z.

Kala azar (leishmaniasis visceralis) with muco-cutaneous lesions.
Acta med. iugosl. 15 no.3:863-871 '61.

1. Institute of Microbiology, Institute of Pathology and Pediatric Clinic, Medical Faculty, University of Sarajevo.
(LEISHMANIASIS MUCOCUTANEOUS in inf & child)
(LEISHMANIASIS VISCERAL in inf & child)

NIKULIN, G. F.

"Economy of Electric Power in the Rolling Mills of the 'Serp i Molot' Plant," Collection of Data of the Scientific and Technical Session on Electric Power Economy (Sbornik materialov nauchno-tekhnicheskoy sessii po ekonomii elektroenergii), No II, MONTTOE, 1949, 139 pp.

All-Union Scientific and Technical Society of Power Engineers Moscow Division, Industrial Electrical Engineering Section.

W - 15368, 6 Dec 50

NIKULIN, G.F.; SAMOYLOV, V.A.

Shortcomings in norms of electric power consumption. Prom.energ. 12 no.10:18-20 O '57. (MIRA 10:10)

1. Zavod "Serp i molot" (for Nikulin). 2. Energosbyt Mosenergo (for Samoylov).

(Electric power)

MIKULIN, G.F.

Combined portable woodworking machine [Suggested by G.F.Mikulin]
Rats. i izobr. predl. v stroi. no.6:77-84 '58. (MIRA 11:10)
(Jointer (Woodworking machine))

VESHENEVSKIY, S.N.; SOLODUKHO, Ya.Yu.; TSALLAGOV, A.P.; ZAMARAYEV, B.S.; VOLKOV, A.F. (Moskva); NIKULIN, G.F.; LARKIN, A.P.

Exciter for electrical machines using thyristors. Elektrichestvo no.2:74-77 F '64. (MIRA 17:3)

1. Gosudarstvennyy institut po proyektirovaniyu elektrooborudovaniya dlya tyazheloy promyshlennosti (for Veshenevskiy, Solodukho, TSallagov, Zamarayev). 2. Metallurgicheskiy zavod "Serp i molot" (for Nikulin, Larkin).

SOV/124-58-10-11466

Translation from: Referativnyy zhurnal, Mekhanika, 1958, Nr 10, p 109 (USSR)

AUTHOR: Nikulin, G.M.

TITLE: Vibrations and the Dynamic Stability of Curved Rods (Kolebaniya i dinamicheskaya ustoychivost' krivolineynykh sterzhney)

PERIODICAL: Dokl. 7-y Nauchn. konferentsii, posvyashch. 40-letiyu Velikoy Oktyabr'sk. sots. revolyutsii. Nr 2. Tomsk, Tomskiy un-t, 1957, pp 26-27

ABSTRACT: Bibliographic entry

Card 1/1

NIKULIN, G.P.

Organization of the work of designers in the "Severokhod" Leather-and Shoe Production Combine. Kozh.-obuv.prom. 6 no.11:28-29 N '64. (MIRA 18:4)

[redacted], I. A.

Forest Nurseries

Use of cover crops with spot seeding, Les 1 step' No. 3, 1952

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

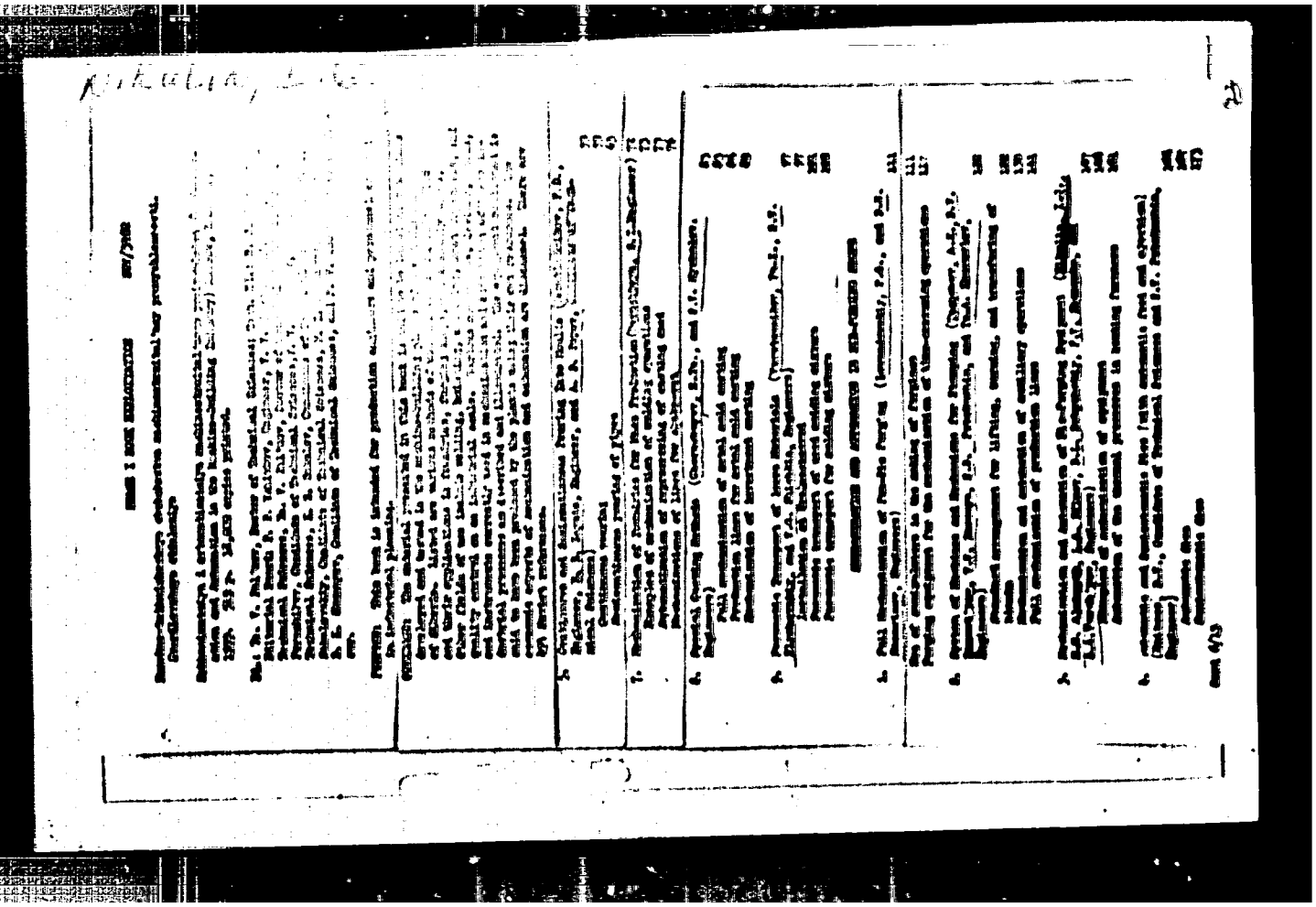
NIKULIN, I.A., prof. (Krasnoyarsk)

Increase of the effectiveness of capital investments in power engineering. Elektrichestvo no.10:55-57 O '64.

(MIRA 17:12)

NIKULIN, I.A., prof. (Krasnoyarsk); TROSHIN, V.A., inzh. (Krasnoyarsk); TYURMANOV, Yu.M., inzh. (Krasnoyarsk)

Calculation of the excitation of synchronous motors with consideration of minimum energy loss. Elektrichestvo no.4:8-14 Ap '65. (MIRA 18:5)



NIKULIN, I.I., kand. tekhn. nauk dots.

Delivery of local freight within the railroad junction area.
Trudy DIIT no.28:119-124 '59. (MIRA 13:2)
(Railroads--Freight)

25(7) SOV/117-59-6-19/33

AUTHOR: Nikulin, I.V.

TITLE: A Versatile Lathe Attachment

PERIODICAL: Mashinostroitel', 1959, Nr 6, p 33 (USSR)

ABSTRACT: This attachment is designed for cutting precision holes off-center and at an angle, cutting multiple-threads, and turning machine parts on set squares. It has a conic shank for insertion into the lathe headstock spindle. If no "SIP" coordinate-boring machine is avialable in the shop, the device can also be used for making jigs and fixtures. It is simple and gives high-precision holes located on different coordinates. There is 1 diagram.

Card 1/1

NIKULIN, I.Ya.

Introducing dies for bending the edge and shaping the radial groove. Biul.tekh.-ekon.inform.Gos.nauch.-issl.inst.nauch.i tekh.inform. 18 no.11:35 N '65.

(MIRA 18:12)

SARVIN, N.S.; NIKULIN, I.Ya.; GUSHCHIN, G.G.

Introducing an automatic machine for cutting threads in box nuts. Biul.tekh.-ekon.inform.Gos.nauch.-issl.inst. nauch.i tekh.inform. 18 no.11:20-21 N '65.
(MIRA 18:12)

NIKULIN. Prof. N. G.

Abr., Gor'kiy Oncological Dispensary, -c1948-. "Early Diagnosis of Cancer of the Stomach," Sov. Med. No. 7, 1948; "Infections and Traumatic Pneumoscleroses," Gor'kiy, 1948.

NIKULIN, K.G.

Data for the study of the higher nervous function in internal diseases. Klin. med., Moskva 30 no.9:75-81 Sept 1952. (CLML 23:2)

1. Professor. 2. Of the Department of Diagnosis of Internal Diseases (Head -- Prof. K. G. Nikulin), Gor'kiy Medical Institute.

NIKULIN, K.G.; AL'PEROVICH, I.A.; MALEVA, I.Ya.

Clinical significance of reinforcement of conditioned reflex to insulin and luminal by small doses of unconditioned stimulus. Klin. med., Moskva 31 no.5:52-55 May 1953. (CIML 25:1)

1. Professor for Nikulin. Candidate Medical Sciences for Al'perovich.
2. Of the Diagnostic Department (Head -- Prof. K. G. Nikulin), Gor'kiy Medical Institute.

NIKULIN, K.O., professor (Gor'ki)

Problem of myocardiodystrophy. Terap. arkh. 26 no.2:25-28 Mr-Ap '54.
(MLRA 7:8)
(MYOCARDIUM, diseases,
*myocardosis)

NIKULIN, K.G., professor.

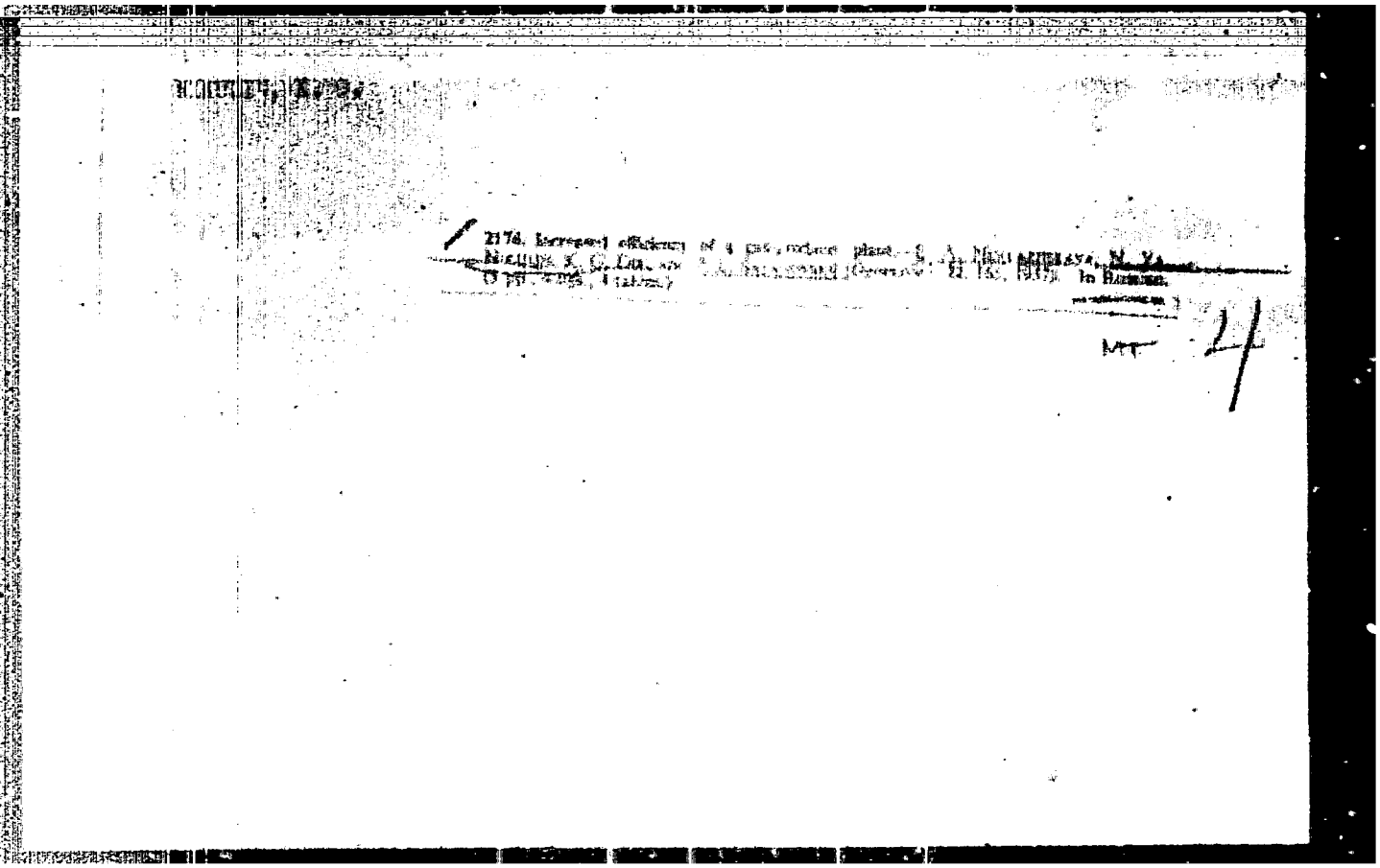
Obscure problems in the theory of corticovisceral pathology as interpreted by clinicists. Klin.med. 32 no.9:19-23 S '54.(MLRA 7:12)

1. Iz kafedry propedevtiki vnutrennikh bolezney (zav. prof. K.G.Nikulin) Gor'kovskogo meditsinskogo instituta imeni S.M.Kirova.
(CEREBRAL CORTEX, pathology.
corticovisceral theory, educ.)

NIKULIN, K.G., professor

Some results of the diagnostic use of radioiodine in internal diseases. Terap.arkh. 28 no.7:37-43 '56. (MLRA 10:1)

1. Iz kafedry propedevtiki vnutrennikh bolezney Gor'kogo meditsinskogo instituta.
(IODINE, radioactive
diag. of various dis.)



2174. Increased efficiency of a gas reforming plant. [illegible] Niagara Falls, N. Y. [illegible] In Russian.

MT 24

NIKULIN, K.G., prof. (Gor'kiy)

Chronic pneumonia. Klin.med. 35 no.12:46-50 D '57. (MIRA 11:2)
(PNEUMONIA
chronic, pathogen. & ther. (Rus))

NIKULIN, K.G., prof. (Gor'kiy)

Acute segmental pneumonia. Sov. med. 27 no.12:3-8 D'63
(MIRA 17:4)

NIKULIN, K.G., prof. (Gor'kiy)

Asthmoid bronchitis. Sov.med. 28 no.12:121-124 D '65.
(MIRA 18:12)

MOLCHANOV, A.P., insh.; NIKULIN, K.K., arkhitekt; SHAMRIKOV, N.I., insh.

Building a new shop for the Sinarskaya pipe plant. Prom. stroi. 39 no.8:9-12 '61. (MIRA 14:9)
(Sinarskaya--Construction industry)

NIKULIN, K.K., dotsent; DEVYATOV, V.G., aspirant

Effective space planning and construction decisions for service buildings. Trudy Ural.politekh.inst. no.109:88-93 '61. (MIRA 14:7)

(Employees' buildings)

MOLCHANOV, A.P., inzh.; NIKULIN, K.[illegible], arkhitektor; TITAKOV, A.I., inzh.

A new type of building for tube-drawing production. Prom. stroi. 40 no.7:16-19 '62. (MIRA 15:7)
(Factories--Design and construction) (Metalwork)

NIKULIN, K.K., arkhitektor

Concerning the layout of rolling mills. Sbor. trud. NII po stroi. ASiA [Sverd.] no.8:6-16 '63. (MIRA 16:10)

MOLCHANOV, A.P., inzh.; NIKULIN, K.K., arkhitektor; TITAKOV, A.I., inzh.

Designs for prefabricated buildings of pipe drawing mills.
Sbor. trud. NII po stroi. ASiA [Sverd.] no.8:17-28 '63.
(MIPA 16:10)

NIKULIN, K.V., inzhener.

Forced cooling of the clinkering zone in a rotary kiln. Tsement 17 no.5:15-19 S-O '51. (MLRA 9:8)

(Kilns, Rotary)

NIKULIN, K.V.; LUK'YN, Yu.S.

New technological equipment for cement mills. Tsement 22 no.2:4-11 Mr-Ap '56. (MLRA 9:9)
(Cement industries--Equipment and supplies)

AUTHOR: Nikulin, K.V. SOV-101-58-5-1/10

TITLE: The Further Development of the Cement Industry (O dal'neyshem razvitii tsementnoy promyshlennosti)

PERIODICAL: Tsement, 1958, Nr 5, pp 1-6 (USSR)

ABSTRACT: Soviet production of cement increased from 18.9 million tons in 1954 to 28.9 million tons in 1957. The output per worker rose from 441 to 575 tons. The rising demand for cement, however, still can not be satisfied. The planned construction of new cement plants was not fulfilled in 1957. In the RSFSR in 1957 cement plants were in operation in only 45 of 60 economic regions. The average distance along which cement was transported was 524 km in 1956, only a slight decrease compared to the 582 km in 1954. In 1965 cement will be produced in 54 economic regions of the RSFSR, and the average transport distance will be lowered to 350 km. In the Kazakh SSR, the total need for cement will be met by local production in 1965; more than half is now supplied by other republics. Natural gas will fill 60-70% of the fuel demands of the cement industry in 1965. Blast furnace slag will be used on a wider scale. Equipment and technological installations to permit a finer grinding of the cement will be put

Card 1/2

NIKULIN, K.V.

Our main objective in 1961 is to put new large-capacity plants into operation ahead of time. TSement 27 no.1:1-4 Ja-F '61. (MIRA 14:2)

(Cement plants)

S/891/62/000/000/002/006
A057/A126

AUTHORS: Nikulin, K.V., Kholin, I.I.

TITLE: Tendency of the technical development of the cement industry

SOURCE: Novoye v khimii i tekhnologii tsementa; trudy soveshcheniya po khimii i tekhnologii tsementa, 1961 god. Edited by P.P. Budnikov and others, Moscow, Gosstroyizdat, 1962, 12 - 21

TEXT: The future development of the Soviet cement industry in 1961 - 1965 is discussed, some particular data of plants and several important problems to be solved are mentioned. The Soviet cement industry grows faster than other branches of industry. The USSR will become the greatest cement producer in the world in the next 2 - 3 years and, therefore, it is necessary to build every year plants with 9 - 10 million tons of total cement output. The basic type of kiln foreseen in the technical development program (1961 - 1965) for the new plants is the rotating kilns (5 x 185 m) with 675,000 tons annual capacity or the smaller type (4.5 x 170 m) with 450,000 tons per annum. The main increase in cement production will be effected by the wet process. 62 rotating kilns

Card 1/3

Tendency of the technical development of the ....

working by the wet process will be erected in 1961 - 1965, 31 of which will be 5 x 185 m, while 17 furnaces with cyclon heat exchangers or calcination grates and a 850 ton/day capacity each will work by the dry method. With the increasing capacity rises also the problem of efficient cooling systems. Grate coolers, produced in the plant "Volgotsementyazhmash", are most convenient and gave positive results in the Kuybyshevskiy tsementnyy zavod (Kuybyshev Cement Plant). The desiccation of the cement slurry is an important problem investigated in the institute NIITsemmash. In order to improve the milling technique the production of modern tube-mills (3.2 x 15 m) was started in the plant "Sibirmash". An effective procedure is a two-stage milling in an open cycle, while a closed milling cycle has the advantage to produce cements with high specific surface (up to 4,500 - 5,000 cm^2/g). Jet mills are highly effective since several technological operations may be carried out by them (grinding, drying, and calcination). Automation of the cement industry must be extended. Other very important problems are the development and production of special cements such as: a quick-hardening highly resistant portland cement with a strength after 24 h of at least 300 kg/cm^2 and after 28 days up to 800 - 1,000 kg/cm^2; new types of cements for hydrotechnical installations with increased corrosion and frost resistance; new

Tendency of the technical development of the ....

tamponage cements for the petroleum and gas industry; special cements for road building; cements for radiation protection at relatively low temperatures (100 - 400°C); non-shrinking and expanding cements with controllable expansion based on portland cement; and a larger nomenclature of high-quality white and colored cements. There is 1 table.

Card 3/3

NIKULIN, L.F.

Results of grading. Geog. v shkole 18 no.2:59-60 Mr-Ap '55.
(MLRA 8:7)

1. Verkhne-Toyemskaya shkola Arkhangel'skoy oblasti.
(Grading and marking (Students)) (Geography--Study and teaching)

NIKULIN, L.F.; [illegible] I.V.; KONDRAT'YEV, G.N.; [illegible]
SHISHARIN, B.N.

Cleaning the checkerwork, checker flues, and smoke flues from flue dust during the operation of an open-hearth furnace. Stal' 25 no.6:566-567 Je '65. (MIRA 18:6)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut metallurgicheskoy teplotekhniki i Nizhne-Tagil'skiy metallurgicheskiy kombinat.

SHTEYNBERG, Yu.G.; NIKULINA, L.M.

Crystallization capacity of porcelain glazes and their behavior in kilning. Stek.i ker. 13 no.5:16-19 My '56. (MLRA 9:8)

1. Gosudarstvennyy nauchno-issledovatel'skiy keramicheskiy institut.
(Glazes) (Crystallization)

TARAKEVA, T.I.; NIKULINA, L.N.

Using the "Gusevka stone" in ceramic bodies. Stek. i ker. 22 no.4:14-16 Ap '65. (MIRA 18:5)

1. Gosudarstvennyy nauchno-issledovatel'skiy keramicheskiy institut.

SHESTOPAL, A.O., kand. tekhn. nauk; NIKULIN, L.P., inzh.

Construction of a mooring of angle-iron design in Il'ichevsk harbor. Transp. stroi. 13 no.5:24-26 My '63. (MIRA 16:7)

(Il'ichevsk--Anchorage)

NIKULIN, L.P., inzh.

Floating works for shore stabilization operations. Transp. stroi. 14 no.11:26-28 N '64. (MIRA 18:3)

NIKULIN, L.P., inzh.

Standardization of hawsers. Transp. stroi. 14 no.9:61 S '64
(MIRA 18:1)

1. Chernomorskaya Nauchno-issledovatel'skaya stantsiya Orgtransstroya.

NIKULIN, L.Ya.

Activity of school children in the collective farm during the summer. Nat.v shkole no.5:85 S-O '54. (MLRA 7:9)

1. Uchitel' shkoly "Krasnoye znamya" Kharuzskogo rayona Kemipalatinskoy oblasti.
(Agricultural laborers) (School children)

MIKULIN, L.Ya.

Work of young stockbreeders in the collective farm section. Mat. v shkole no.6:79-80 N-D '54. (MLRA 7:12)

1. Uchitel' shkoly kolkhoza "Krasnoye znamya" Zharuinskogo rayona Semipalatinskoy oblasti.
(Stock and stockbreeding)