MAKSIMENKO, M.Z.

Application of a mixing injector for neutralizing gasoline.
Neftianik 1 no.11:20-21 N '56. (MLRA 9:12)

1. Inzhener-mekhanik Novoufimskogo neftepererabatyvayushchego zavoda.
(Gasoline)

MAKHOV, A.F.; SUDOVIKOV, A.D.; MAKSIMENKO, M.Z.

Still with spiral nonperturbent coil for heating, reforming, and pyrolysis of petroleum products. Mash. i neft. obor. no.5: 31-33 '63. (MIRA 17:8)

1. Novoufimskiy neftepererabatyvayushchiy zavod.

MAKSIMENKO, M.A.; [illegible]; [illegible]; [illegible]; [illegible]
SHTEYN, I.Ya.

Investigating certain design [illegible] expansion apparatus in a lubricant-phenol system. Neftepererab. i neftekhim. no.9:44-46 '64. (MIRA 17:9)

1. Novokuybyshevskiy neftepererabatyvayushchiy zavod i Kuybyshevskiy khimiko-tekhnologicheskiy institut.

L 22381-66 EWT(m)/T DJ/WE

ACC NR: AP6007941 (A) SOURCE CODE: UR/0318/66/000/001/0049/0051

22.
B

AUTHOR: Maksimenko, M. Z.; Galeyev, A. F.

ORG: Novo Ufimsk Oil Refinery (Novo-Ufimskiy neftepererabatyvayushchiy zavod)

TITLE: Effect of pulsation and vibration on the performance of extraction columns used for phenol purification of oils

SOURCE: Neftepererabotka i neftekhimiya, no. 1, 1966, 49-51

TOPIC TAGS: phenol, fuel refining, petroleum refining, petroleum refinery equipment, petroleum engineering

ABSTRACT: The effect of the frequency of pulsation and vibration on the performance of a pilot plant pulsation packed column and a pilot plant two-segment column (lower part packed and upper part containing vibrating plates) was studied. The phenol extraction of oil was used as a model system. The schemes of the columns used are shown in figure 1. The columns' dimensions were: diameter = 0.5 m, total height = 5.3 m, length of column core = 3.3 m. The load was 15-16 m^3/m^3 for the $a \cdot f = 0$ and 10 m^3/m^3 for $a \cdot f = 0.01$; where a is pulsation or vibration amplitude and f is frequency. The dependence of HETP and of the oil content in extract upon vibration or pulsation frequency is graphed. It was found that the two-segment phenol extraction columns are

UDC: 665.637.733.023.23 : 532.517.6.001.5

Card 1/3

2

L 22381-66
ACC NR: AP6007941

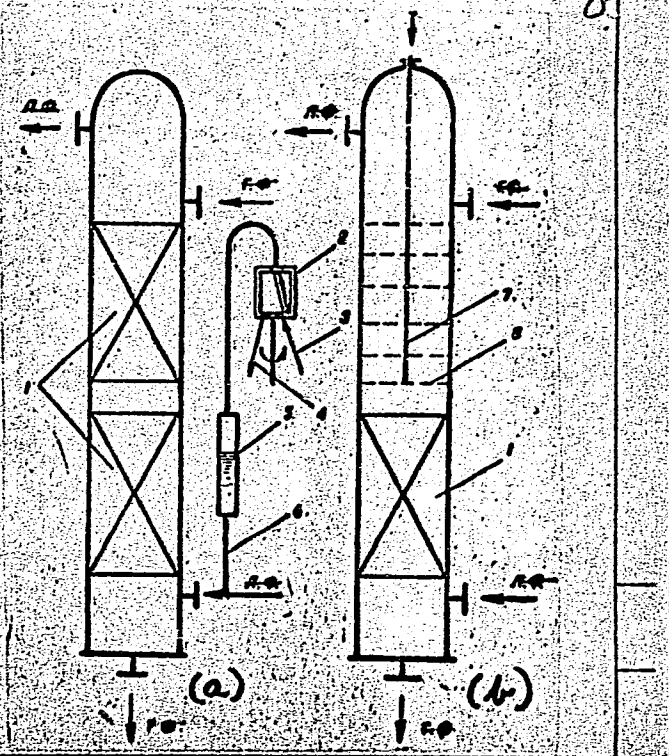


Fig. 1. a--column with pneumatic pulsation; b--two-segment column; 1--plate; 2--pulsator; 3--air inlet; 4--air outlet; 5--pulsation chamber; 6--pipe; 7--shaft; 8--plates.

Card 2/3

L 22381-66
ACC NR: AP6007941

more efficient than those in which all liquid is subjected to pulsation. Orig. art. has: 2 figures, 1 table.

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

Card 3/3 dda

SAVEL'YEV, Vladimir Ivanovich; MAKSIMENKO, N., red.

[Potentials for an increase in fishery production] Rezervy uvelicheniia proizvodstva rybnoi produktsii. Kaliningrad, Kaliningradskoe knizhnoe izd-vo, 1964. 45 p.
(MIRA 17:10)

MAKSIMENKO, N.M.

Fluid vitreous frothing agent for foamy cement mixtures. Rats.i izobr.predl.v stroi. no.55:20-21 '53. (MLRA 7:3)
(Cement)

MAKSIMENKO, N.N., inzh.

A case of the faulty operation of a system for protecting electric generators from short-circuits to ground. Elek. sta. 33 no.8: 79-80 Ag '62. (MIRA 15:8)
(Electric power distribution) (Electric protection)

MAKSIMENKO, N.N., inzh.

Electric current grounding devices in permafrost regions. Elek. sta. 33 no.10:66-69 O '62. (MIRA 16:1)
(Electric currents--Grounding)
(Russia, Northern--Electric power distribution)

S/105/63/000/003/002/004
A055/A126

AUTHOR: Maksimenko, N.N., Engineer (Noril'sk)

TITLE: Electrophysical characteristics of permafrost grounds

PERIODICAL: Elektrichestvo, no. 3, 1963, 71 - 74

TEXT: The results of the investigations of permafrost grounds on the Taymyr peninsula are summed up. The thickness of the active (and upper) layer varies from 0.3 to 3.9 m. The thaw sets in between May 20 and June 10. The freezing from above begins between September 15 and October 1; from below, between September 10 and 20. The thickness of the active layer depends mainly on the granulometric content of loose rocks; its thermal range depends considerably on the thickness and density of the snow and vegetative covers; its humidity is 10 - 20% for sandy grounds, 20 - 30% for argillaceous and 30 - 60% for peaty grounds; the humidity-versus-depth variation is practically independent of the time of the year. The average thickness of the accumulation layer is 10 - 20 m; the variation of its temperature (which is always negative) amounts to 10 - 15°C in the upper part and is equal to zero in the lower part; the moisture phase

Card 1/3

(water - ice) varies only in the upper part; the phase transformati... ...er-ice is inexistent in sandy grounds, but it is considerable in argillaceou... ...unds. The thickness of the constant-temperature layer varies from some dozens to some hundreds m; its annual temperature is about -2 + -7 C. Some data are also given on the various forms of moisture in the examined grounds: a) water as vapor; b) hygroscopic water and pellicular water, forming together the so-called bound water, a part of which does not freeze even at -78 C; c) gravitational water, which is quantitatively predominant and whose freezing temperature varies between -3 and 0 C; d) ice. After this general information, the author deals with the electric resistivity of permafrost grounds. This resistivity depends on the humidity and the electrolyte content of the ground; a curve showing its dependence on temperature is reproduced. Since bound water freezes at a lower temperature, the resistivity (at equal temperatures) of frozen sands containing almost exclusively gravitational water is higher than that of clay and loam, that contain mainly bound water. The seasonal variation of the resistivity decreases with increasing depth. It is expedient, therefore, to sink the grounding electrodes to a depth of about 10 m. The resistivity values of various thawed and frozen rocks in the neighborhood of Noril'sk are listed in a table.

Electrophysical characteristics of permafrost grounds

S/105/63/000/003/002/004
A055/A126

Another table shows the resistivity of the ground at the bottom of some non-freezing lakes. Some data on the thermal capacity and thermoconductivity of frozen grounds are given at the end of the article. There are 5 figures and 2 tables.

SUBMITTED: September 4, 1962

Card 3/3

MAKSIMENKO, N.N., inzh.

Sensitive directional protection system of radial compensated networks from short-circuits to ground. Izv. vys. ucheb. zav.; energ. 6 no.6:12-17 Je '63. (MIRA 16:11)

1. Tomskiy ordena Trudovogo Krasnogo Znameni politekhnicheskiy institut.

MAKSIMENKO, N.N., inzh.

Damage of the stator winding of the TVF-100-2 turbogenerator.
Energetik 11 no.3:6-7 Mr '63. (MIRA 16:4)

(Turbogenerators—Windings)

MAKSIMENKO, N.N., inzh.

Sensitive relay for the protection of high-voltage motors from short-circuits to ground. Energetik 11 no.5:29-30 My '63. (MIRA 16:7)

(Electric protection) (Electric relays)
(Electric motors--Safety measures)

MAKSIMENKO, N.N., inzh.

System for checking the insulation at the bus conductors of an electric substation. Energetik 11 no.6:19-20 Je '63. (MIRA 16:7)

(Electric insulators and insulation)
(Electric transformers)

MAKSIMENKO, N.N., inzh.

Protection of low-voltage motors in partial phase operation. Prom. energ. 18 no.7:14-15 Jl '63. (MIRA 16:9)
(Electric motors)

MAKSIMENKO, N.N., inzh.

Conductivity of reinforced concrete pile foundations in permafrost regions. Prom. energ. 18 no.11:41-42 N '63. (MIRA 16:12)

MAKSIMENKO, N.N., inzh.

Seasonal change of the capacitance of electric power transmission lines in the Arctic Regions. Elek. sta. 34 no.10:82-83 O '63.
(MIRA 16:12)

MAKSIMENKO, N.N., dotsent

Design of electric current grounding devices for permafrost soils. Izv.vys.ucheb.zav.; energ. 7 no. 4:43-48 Ap '64. (MIRA 17:5)

1. Noril'skiy vecherniy industrial'nyy institut. Predstavlena kafedroy elektrotekhniki.

L 54550-65 EWT(d)/EED-2/EWP(1) Pq-4/Pg-4/Pk-4 IJP(c) BB/GG

UR/0286/65/000/008/0064/0065

ACCESSION NR: AP5015524

AUTHORS: Misulovin, L. Ya.; Auzin', V. Ya.; Maksimenko, N. A.; Lerner, Ye. L.; Stroy, I. G.; Batura, S. E.; Shlyakhtina, D. A.

31
30
B

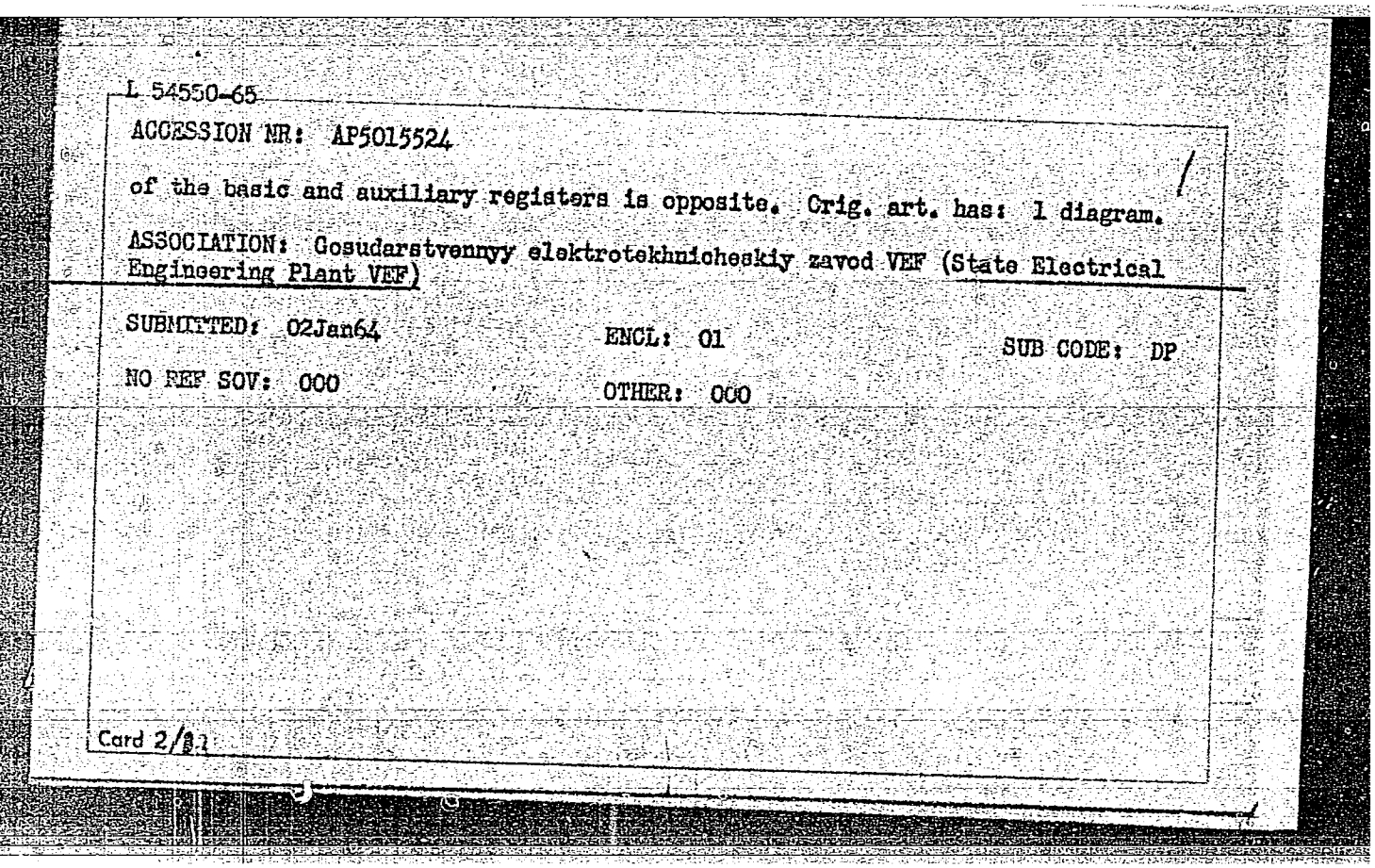
TITLE: Parallel-series shift register. Class 42, No. 170203

SOURCE: Byulleten' izobreteniy i tovarnykh znakov, no. 8, 1965, 64-65

TOPIC TAGS: shift register

ABSTRACT: This Author Certificate presents a parallel-series shift register having potential triggers with gates at the recording inputs. To decrease the number of storage units, the register contains basic registers for parallel information recording and one auxiliary register controlling the shift of information in the basic registers. The outputs of each preceding trigger are connected to the record gate inputs of the next (see Fig. 1 on the Enclosure). The second inputs of the zero record gates of the auxiliary register are connected to the input for the shift pulse series at output, the one record gates are connected to the input for the shift pulse series at recording. The second input of the record gate of each trigger of the basic register is connected to the zero output of the trigger of the auxiliary register with the same number. The numeration

Card 1/2



L 54550-65

ACCESSION NR: AP5015524

of the basic and auxiliary registers is opposite. Orig. art. has: 1 diagram.

ASSOCIATION: Gosudarstvennyy elektrotekhnicheskiy zavod VEF (State Electrical Engineering Plant VEF)

SUBMITTED: 02Jan64 ENCL: 01 SUB CODE: DP

NO REF SOV: 000 OTHER: 000

Card 2/2

MAKSIMENKO, N.N. (Noril'sk)

Electric currents in frozen ground. Elektrichestvo no.12:47-50 D '64. (MIRA 18:12)

MAKSIMENKO, N.N., inzh.; CHUMANOV, V.P., inzh.

Single-phase short circuits to ground in 35-110 kv. networks in the Far North. Elek. sta. 36 no.9:57-61 S '65. (MIRA 18:9)

ACC NR: AT6034774 SOURCE CODE: UR/3135/65/000/003/0075/0083

AUTHOR: Maksimenko, N. N.

ORG: none

TITLE: Return currents of alternating-current lines in heterogeneous grounds

SOURCE: Noril'sk. Vechernyy industrial'nyy institut. Trudy, no. 3, 1965. Fiziko-elektrotekhnicheskiy vypusk (Physics and electrical engineering), 75-83

TOPIC TAGS: electric current, high voltage line, mathematic model, electromagnetic wave, differential equation, wave propagation, earth current, electric impedance, electric conductivity

ABSTRACT: A method for calculating the effective conductivity of the ground on a current path in a conductor-to-ground loop according to the input characteristic impedance of the ground is proposed. The method is based on the analogy between processes in lines with distributed parameters and processes that characterize the distribution of plane-parallel electromagnetic waves. It is assumed that the conductor of the overhead line runs along the axis of a cylinder cut into the earth's surface (see Fig. 1). Cylindrical electromagnetic waves propagated in homogeneous ground are expressed by

$$\dot{E} = \frac{I\sqrt{j\omega\mu\mu_0/\sigma}}{j2\pi h} \cdot \frac{H_0^{(2)'}(\xi)}{H_1^{(2)}(\xi h)},$$

$$\dot{H} = \frac{\dot{I}}{2\pi h} \cdot \frac{H_1^{(2)}(\xi)}{H_1^{(2)}(\xi h)},$$

Card 1/3

ACC NR: AT6034774

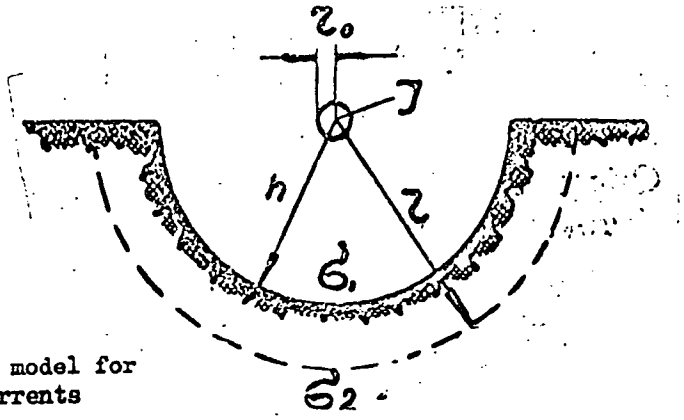


Fig. 1. Reudenberg's model for calculating return currents

where $\dot{I}$ is the current in the forward conductor of the line; σ is the conductivity of the earth; ω is the current frequency; $\mu\mu_0$ is the permeability of the earth; $H_0^{(2)}(\xi)$ is a zeroth-order cylindrical Hankel function of the second kind; and $H_1^{(2)}(\xi_h)$ is a first-order cylindrical Hankel function of the second kind. In heterogeneous grounds, the impedance of the conductor-to-earth line, the impedance of the zeroth sequence, and the coefficient of mutual inductance between the two conductors are determined from formulas derived for homogeneous grounds. This is achieved by substituting the effective conductivity calculated from the input

Card 2/3

ACC NR: AT6034774

characteristic impedance of the earth as:

$$\zeta_{e(m)} = \zeta_1 \frac{\zeta_3\zeta_2 + \zeta_2^2 th\gamma_2 h_2 + \zeta_1\zeta_2 th\gamma_1 h_1 + \zeta_1\zeta_3 th\gamma_1 h_1 th\gamma_2 h_2}{\zeta_1\zeta_2 + \zeta_1\zeta_3 th\gamma_2 h_2 + \zeta_2\zeta_3 th\gamma_1 h_1 + \zeta_2^2 th\gamma_1 h_1 th\gamma_2 h_2} = \zeta_1 \left[\frac{\zeta_2(\zeta_3 + \zeta_2 th\gamma_2 h_2) + \zeta_1 th\gamma_1 h_1(\zeta_2 + \zeta_3 th\gamma_2 h_2)}{\zeta_1(\zeta_2 + \zeta_3 th\gamma_2 h_2) + \zeta_2 th\gamma_1 h_1(\zeta_3 + \zeta_2 th\gamma_2 h_2)} \right].$$

This method can be used for any degree of heterogeneity of the ground. The theoretical conclusions agree with the experimental data. Orig. art. has: 14 formulas, 1 diagram, and 1 graph.

SUB CODE: 09/ SUBM DATE: 13Mar65/ ORIG REF: 003/ OTH REF: 002

Card 3/3

.3.2000,18.3200

78034
SOV/[illegible]

AUTHOR: Maksimenko, N. P., Sakharskiy, A., Kartamyshev, N. I.

TITLE: Packing of Small and Large Bell Rods

PERIODICAL: Metallurg, 1960, Nr 3, p 4 (USSR)

ABSTRACT: In 1955 a simple design of packing rods of small and large bell was developed at Alchevsk Plant. This design consists of two detachable stuffing boxes for the large bell rod and one detachable stuffing box for the small bell rod (see Figure). In the new design there is no need for steam supply and the use of water cooling. There is 1 figure.

ASSOCIATION: Plant imeni Voroshilov (Zavod imeni Voroshilova)

Card 1/3

Packing of Small and Large Bell Rods

78034
SOV/120-58-3-3/23

Fig. 1 (Cont'd on Card 3/3)

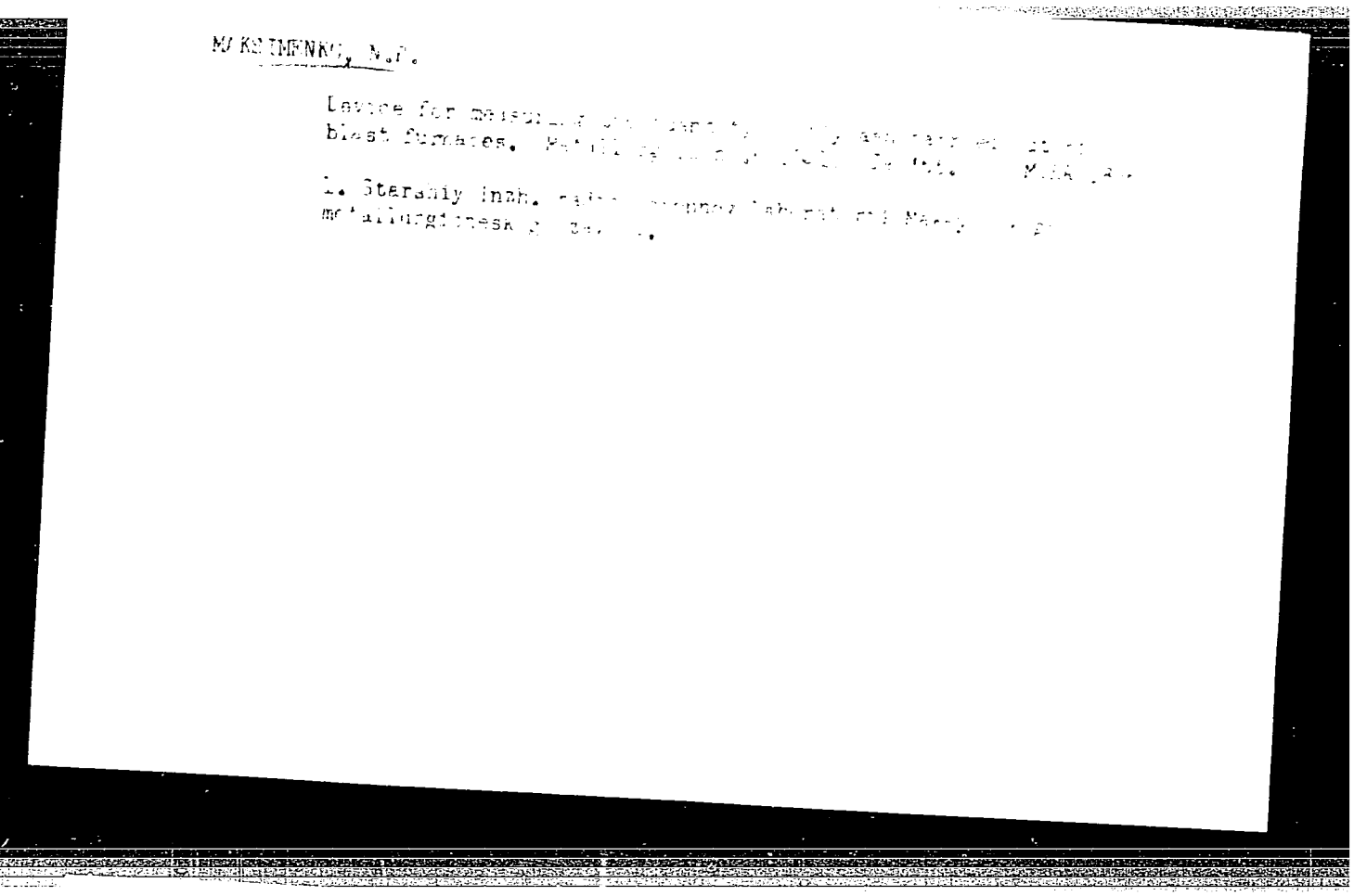
Card 2/3

Packing of Small and Large Bell Rods

78034
SOV/130-60-3-3/23

Fig. Stuffing box packing for the rods of small and large bell for charging apparatus of blast furnace. (a) Rod of the large bell; (b) rod of the small bell; (1 and 2) detachable stuffing boxes for rod packing of large bell; 3) detachable stuffing box for rod packing of small bell; (4) lubricating ring ; 5) packing.

Card 3/3



MUKHTIMENKO, N.P.

Device for measuring [illegible] blast furnaces. [illegible]

[illegible] Sternly inzh. [illegible] metallurgicheskikh [illegible]

Maksimenko, N. S. "Toward making labor more profitable", (Technical [illegible] at the Panek Hydrolysis Plant), Gidroliz. i lesokhim. prom-st' SSSR, 1957, No. [illegible], p. 12-13.

SO: U-2888, 12 Feb. 58 (Letopis' Zhurnal'nykh Statey, No. 2, 1958).

MAKSIMENKO, N.S.

Fuel briquettes from the lignin of cottonseed hulls. Gidroliz. i lesokhim. prom. 8 no.7:21 '55. (MLRA 9:4)

1.Glavnyy inzhener Ferganskogo gidroliznogo zavoda.
(Briquets (Fuel)) (Cottonseed)

USSR/Chemical Technology - Chemical Products and Their Application. Wood Chemistry Products. Cellulose and Its Manufacture. Paper, I-23

Abst Journal: Referat Zhur - Khimiya, No 19, 1956, 63365

Author: Panasyuk, V. G., Maksimenko, N. S.

Institution: None

Title: Production of Active Charcoal for Clarification from Lignin of Cotton Hulls

Original Periodical: Gidroliznaya i lesokhim. prom-st', 1956, No 2, 13-14

Abstract: Active charcoal for clarification is made from crude charcoal obtained from hydrolysis lignin of cotton hulls by heating at 850° (with steam) for one hour. Yield of activated clarification charcoal, under these conditions is 48-53% on the basis of the crude charcoal or 25-27% on the basis of dry lignin. In contrast with charcoal produced from wood or hydrolysis lignin of wood, charcoal from lignin of cotton hulls can be activated only once; repetition of the process decreases its activity.

Card 1/1

SHPUNTOVA, M.Ye.; MAKSIMENKO, N.S.; GRANKINA, L.G.

Perfecting pentose and hexose hydrolysis of cottonseed hulls. Gidroliz. i lesokhim. prom. 9 no.4:7-9 '56. (MLRA 9:11)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut gidrolizmoy i sul'fitno-spirtovoy promyshlennosti (for Shpuntova). 2. Fergansky gidrolizmyy zavod (for Maksimenko i Grankina).
(Cottonseed) (Hydrolysis)

Maksimenko, N.S.

PANASYUK, V.G.; MAKSIMENKO, N.S.

Thermal decomposition of lignin processed from cottonseed hulls by hydrolysis. Gidroliz. i lesokhim. prom. 11 no.1:16-17 '58. (MIRA 11:2)

1.Dnepropetrovskiy khimiko-tekhnologicheskiy institut (for Panasyuk).
2.Farganskiy gidroliznyy zavod (for Maksimenko).
(Lignin)

MAKSIMENKO, N.S.; GLADNEVA, A.P.; PAVLOV, S.V.; AKKERMAN, I.Z.; KOLOSOVA, A.Ia.; EPSHTEYN, Ya.V.

Mastering the processing of new raw materials at the Krasnodar Hydrolysis Plant. Gidroliz. i lesokhim. prom. 11 no.6:12-16 '58. (MIRA 11:10)

(Krasnodar--Hydrolysis)

PANASYUK, V.G.; PANASYUK, L.V.; MAKSIMENKO, N.S.; LAPSHIN, F.S.

Vacuum thermal decomposition of hydrolytic lignin from wood. Gidroliz. i lesokhim prom. 12 no.7:16-17 '59 (MIRA 13:3)

1. Dnepropetrovskiy sel'skokhozyaystvennyy institut (for V. Panasyuk). 2. Krasnodarskiy gidrolizyny zavod (for Maksimenko, Lapshin).
(Lignin)

MAKSIMENKO, N.S.; GRITSENKO, T.P.

New plant producing fodder yeast. Gidroliz.i lesokhim.prom. 13 no.3:18-21 '60. (MIRA 13:7)

1. Krasnodarskiy gidrolizuyy zavod.
(Krasnodar--Yeast)

GOLOVA, O.P.; EPSHTEYN, Ya.V.; SERGEYEVA, V.N.; KALNIN'SH, A.I. [Kalnins, A.]; ODINTSOV, P.N.; MAKSIMENKO, N.S.; PANASYUK, V.G.; Prinimali uchastiye: MERLIS, N.M.; DURININA, L.I.; BISENIYETSE, S.K.[Biseniece, S.]; GUNDARS, A.Yu.; FEDORCHENKO, R.I.; MINAKOVA, V.I.

New method for the complete chemical processing of plant tissues. Gidroliz. i lesokhim. prom. 14 no.7:4-8 '61. (MIRA 14:11)

1. Institut vysokomolekulyarnykh soyedineniy AN SSSR (for Golova, Epshteyn, Merlis, Durinina). 2. Institut lesokhozyaystvennykh problem i khimii drevesiny AN Latviyskoy SSR (for Sergeyeva, Kalnin'sh, Odintsov, Bisenietse, Gundars). 3. Krasnodarskiy gidroliznyy zavod (for Maksimenko, Fedorchenko, Minakova). 4. Dnepropetrovskiy sel'skokhozyaystvennyy institut (for Panasyuk).

(Plant cells and tissues)
(Botanical chemistry)

GLADNEVA, A.N.; MAKSIMENKO, N.S.; PAVLOV, S.V.

Furfurole-hexose method for processing husk and tan waste.
Gidroliz. i lesokhim. prom. 14 no.7:23-25 '61.
(MIRA 14:11)

1. Krasnodarskiy gidroliznyy zavod.
(FURALDEHYDE)

GOLOVA, O.P.; EPSHTEYN, Ya.V.; SERGEYEVA, V.N.; KALNIN'SH, A.I. [Kalnins, A.]; ODINTSOV, P.N.; MAKSIMENKO, N.S.; PANASYUK, V.G.

Outlook for a new method of complete processing of plant materials. Gidroliz.i lesokhim.prom. 15 no.3:12-15 '62. (MIRA 15:5)

1. Institut vysokomolekulyarnykh soyedineniy AN SSSR (for Golova, Epshteyn). 2. Institut lesokhozyaystvennykh problem i khimii drevesiny AN Latviyskoy SSR (for Sergeyeva, Kalnin'sh, Odintsov). 3. Krasnodarskiy gidroliznyy zavod (for Maksimenko). 4. Dnepropetrovskiy sel'skokhozyaystvennyy institut (for Panasyuk).
(Wood—Chemistry) (Hydrolysis) (Plant cells and tissues)

KUL'NEVICH, V.G.; ABRAMYANTS, S.V.; [illegible]; [illegible]; SLAVIN, B.A.

Furfurole losses in the cooling of its vapors [illegible] hexose cooking of raw materials. Gidroliz. [illegible] 5:21-23 '56.

1. Problemnaya laboratoriya [illegible] tuta (for Kul'nevich, Abramyants, [illegible]. zavod (for [illegible], Slavin).

D UMRUDOVA, T.V.; GORODNEV, V.P.; [illegible]MENKO, [illegible]K.; MAKSIMENK[illegible], N.[illegible]; [illegible]RYGINA, N.N.; ADEL', I.E.

Production of ox[illegible]ized [illegible]gr[illegible] in the Krasnodar Hydr[illegible] [illegible] [illegible].
Gidroliz. i lesokhim.prom. [illegible] no.[illegible] [illegible] [illegible].

(MIRA [illegible])

STARICHKOVA, V.Ye.; DUDKIN, M.S.; GLADNEVA, A.N.; MAKSIMENKO, N.S.

Preparation of fodder yeast from millet hulls. Gidroliz. i lesokhim. prom. 16 no.1:9-11 '63. (MIRA 16:2)

1. Odesskiy tekhnologicheskiy institut im. M.V.Lomonosova (for Starichkova, Dudkin). 2. Krasnodarskiy gidroliznyy zavod (for Gladneva, Maksimenko).
(Yeast as feeding stuff)

MAKSIMENKO, N.T.

Use of metazide tuberculosis in infants. Khim. i med. no.14:92-94 '60. (MIRA 14:12)

1. Klinika tuberkuleza (zav. - prof. I.V.TSimbler) Instituta pediatrii (dir. - prof. O.D.Sokolova-Ponomareva) AMN SSSR.
(TUBERCULOSIS) (METAZIDE)

MAKSIMENKO, Nikolay Vissarionovich, kandidat sel'skokhozyaystvennykh nauk; TULIN, N.S., redaktor; ZUBRILINA, Z.P., tekhnicheskiy redaktor

[Companion cropping] Uplotnennye posevy. Moskva, Gos. izd-vo sel'khoz. lit-ry, 1956. 52 p. (MLRA 10:3)
(Companion crops)

MAKSIMENKO, N. V.

USSR/Cultivated Plants - Fodder

M-6

Abs Jour : Ref Zhur - Biol., No 1, 1958, No 1637

Author : N.V. Maksimenko
Inst : Not Given
Title : Cultivating Corn As Green Fodder and Ensilage in the Ukraine

Orig Pub : V sb.: Kukuruza v 1955 g. Vyp. 6. M., Sel'khozgiz, 1956, 25-34

Abstract : No abstract

Card : 1/1

L 35863-66 EWT(1) DD

ACC NR: AP6022516 (N) SOURCE CODE: UR/0391/66/000/007/0010/0013

AUTHOR: Goncharova, N. N. (Khar'kov); Karamyshev, V. B. (Khar'kov); Maksimenko, N. V. (Khar'kov)

ORG: Institute of Industrial Hygiene and Occupational Diseases (Institut gigiyeny truda i profzabolevaniy)

TITLE: Industrial hygiene problems of working around ultrashort-wave transmitters used in television and broadcasting

SOURCE: Gigiyena truda i professional'nyye zabolevaniya, no. 7, 1966, 10-13

TOPIC TAGS: microwave, industrial hygiene, central nervous system, cardiovascular system, hemodynamics, human physiology

ABSTRACT: A hygienic assessment of personnel working conditions around ultrashort-wave generators was conducted. The clinical effect of a wide range of EMF's was also studied. The tests were run in TV transmission centers where 2—5 kw, 67—230 Mc (VHF) transmitters are used. The basic causes of EMF were inadequate shielding of HF components such as oscillating systems, air capacitors, generator tubes, power bridges, antenna components, etc. Measurements of EMF power intensity were conducted using a LIOT dosimeter and the results showed that the average strength of EMF's (5 v/m) exceeded the permissible values recommended by Z. V. Gordon and P. P. Fukalova. Around control panels, intensity reached 8—15 v/m, around TV transmitters,

Card 1/2 UDC: 616.6:621.39.029.0

L 35863-66

ACC NR: AP6022516

23—68 v/m, and around bridges, 8—30 v/m. It was also noted that 30% of the working shift was spent around transmitters where the field intensity fluctuated between 23 and 150 v/m. About 50% of the time was spent behind the control panel (8—9 v/m), and 20% in the absence of any EMF. Physiological examinations were conducted on 51 subjects, 27 of whom had working periods of 3—8 years and 24 of whom served as controls. It was observed that the working group experienced shifts in nervous and cardiovascular system function. At the end of the working shift there was an increase (by 13 mm Hg) in systolic pressure and prolongation of speech and visual motor reactions. Central nervous system reactivity was not equivalent in the two groups; a study of speech and visual motor reactions showed that reaction speed was decreased by 17—34 σ in workers, while it was increased by 11—17 σ in control subjects. The speed of visual motor reactions compared well to the data of T. V. Kalyada, U. A. Osipov, et. al, 1959. To detect shifts in the state of the nervous system, an olfactometric approach was used. Rosemary (sympathicotropic agent), thymole (parasympathicotropic agent), and camphor (no essential autonomic effect) were used. An increase in worker olfactory threshold was found, indicating central nervous system inhibition both in the autonomic and sympathetic spheres. Analogous results were obtained in a study of the peripheral nervous system; finger chronaxie was somewhat prolonged (0.03—0.05 m/sec) in workers, while shortened in control subjects. This slight increase in chronaxie apparently indicates a decrease in the neural excitation generation rate. It was concluded that prophylactic measures are called for to decrease EMF intensity in TV and radio stations. [CD]

SUB CODE: 06/ SUBM DATE: 15May65/ ORIG REF: 003/ ATD PRESS: 5036

Card 2/2

MAKSIMENKO, N.Ye, inzh.

Screwed steel frames for producing precast reinforced concrete beams in series. Biul. strei. tekh. 12 no.6:8-9 Je '55.
(MIRA 11:12)

1.Streitel'no-montazhnoye upravleniya No. 6 tresta No.1 Glavnogo upravleniya spetsializirovannykh trestov.
(Concrete construction--Formwork)

MAKSIMENKO, O. M.

Shlyakman, M. Ya. and Maksimenko, O. M. - "The synthesis of trioxan," Nauch. zapiski (Khepropetr. gos. un-t), Vol XXXIII, 1948, p. 123-30

SO: U-3240, 17, Dec. 53, (Letopis 'Zhurnal 'nykh Statey, No. 26, 1949).

MAKSIMENKO, P.; POLYANSKIY, Yu.

Radio frequencies for industrial and medical high-frequency systems. (MIRA 16:5)
Radio no.5:56-57 My '63.
(Medical electronics) (Ultrasonic waves--Industrial applications)

SEVERIN, V.T.; MAKSIMENKO, P.A.

Lowering the cost of building refractory plants. Ogneupory 26 no.7:342-343 '61. (MIA 14.7)

1. Vostochnyy institut ogneuporov (for Severin). 2. Gosplan SSSR (for Maksimenko).
(Refractories industry)

L 15284-65 EWT(m)/EWP(w)/EWA(d)/A/EWP(t)/EWP(k)/EWP(z)/EWP(b) MJW/JD/JWC

ACC NR: AP5028963 SOURCE CODE: UR/0119/64/000/009/0025/0027

AUTHOR: Alekseyeva, Ye. A. (Engineer); Gruzdov, A. P. (Engineer); Il'in, Ye. P. (Engineer); Konovalova, I. N. (Engineer); Maksimova, O. V. (Engineer); Shtremel', M. A. (Engineer)

ORG: none

TITLE: Effect of temperature on elastic properties of thin-sheet spring alloys

SOURCE: Priborostroyeniye, no. 9, 1964, 25-27

TOPIC TAGS: spring, measuring instrument, industrial instrument

ABSTRACT: The results are reported of measurements of the elastic limit σ (with residual strains of 0.01 and 0.005%) and elasticity modulus E in bending of 85-120-micron thick specimens (10 x 100 mm) of BrOF6, 5-0, 15, BrKMTs 3-1, BrB2, BrBNT 1, 9 bronzes, 60S2, EI814 steels, and N36KhTYuM8 alloy at temperatures that ranged from -70C to +150 or +500C. Also, the ultimate strength σ_s and the yield point $\sigma_{0.2}$ of 0.1 x 10-mm 57-mm long specimens were determined. All specimens were thermally treated according to specifications normally used in the

Card 1/2 UDC: 620.172.22:62-415:536.49

L 15284-66
ACC NR: AP5028963

instrument-making industry. The numerical findings are reported in the form of curves. It is noted that many specimens suffered brittle fractures partly due to their thickness nonuniformity and high width-to-thickness ratio. Orig. art. has: 7 figures and 1 table.

SUB CODE: 11, 13 / SUBM DATE: none / ORIG REF: 004

Card 2/2

MAKSIMENKO, P. T., Candidate Med Sci (diss) -- "The combined use of antibiotics in treating patients with ulcerous stomatitis". Khar'kov, 1959. 16 pp (Min Health Ukr SSR, Khar'kov Med Inst), 200 copies (KL, No 24, 1959, 151)

MAKSIMENKO, P.T.

Multiform exudative erythema and its appearance on the mucous membrane of the oral cavity. Vrach.delo no.3:281-284 Mr '60. (MIRA 13:6)

1. Kafedra terapevticheskoy stomatologii (zav. - dotsent Ya.L. Fridman) Khar'kovskogo meditsinskogo stomatologicheskogo instituta.

(ERYTHEMA) (MOUTH--DISEASES)

MAKSIMENKO, P.T.

Clinical aspects and treatment of ulcerative stomatitis in children. Probl. stom. 5:411-416 '60. (MIRA 15:2)

1. Khar'kovskiy meditsinskiy stomatologicheskiy institut.
(STOMATITIS)

GRIGOR'YEVA, L.P. (Khar'kov); LEKHTSIYER, L.I. (Khar'kov); MAKSIMENKO, P.T. (Khar'kov); USTIMENKO, V.L. (Khar'kov)

Compound treatment of paradentosis. Probl.stom. 6:92-98 '62. (MIRA 16:3)

(GUMS--DISEASES)

MAKSIMENKO, P.Ya.; POLYANSKIY, Yu.S.

Use of radio frequencies for industrial and medical purposes.
Radiotekhnika 18 no.7:60-65 Jl '63. (MIRA 16:10)

1. Deystvitel'nyy chlen Nauchno-tekhnicheskogo obshchestva radiotekhniki i elektrosvyazi im. A.S.Popova.

MAKSIMENKO, S., inzh.

"Briquetting of peat" by M.G. Bulynko, V.I. Ivanov, M.I. Sarmatov. Reviewed by S. Maksimenko. Torf. prom. 39 no.6:39 '62. (MIRA 16:7)

(Bulynko, M.G.) (Ivanov, V.I.) (Sarmatov, M.I.)

MAKSIMENKO, S. A.

559 elektromekhanizatsiya trudoyemkikh protsessov na zhivotnovodcheskoy ferme kolkhoza Il'i cha. /verkhne-khortitskiy rayon zaporozh. obl. M.7, 1954. 8s. 20 sm. (M-vo sel'skogo Khozyaystua SSSR. M-vo sovkhozov SSSR. Vsesoyuz. Nauch. inzh-tekhn. o-vo energetikov. Nauch.-Tekhn. soveshchaniye po mekhanizatsii i elektrifikatsii trudoyemkikh protsessov v zhivornovodsrve). 1.000 ekz.- Bespl.-
/54-54644/ p 636.0025 (47.722)

SO: Knizhnaya Letopis, Vol. 1, 1955

L 18055-66 EWT(1)/EWT(m)/ETC(f)/EWG(m)/T/EWP(t)/EWA(h) IJP(c)
ACC NR: AT6006176 JD/JG/GS/AT SOURCE CODE: UR/0000/65/000/000/0295/0300

AUTHOR: Tresvyatskiy, S. G.; Zyrin, A. V.; Maksimenko, S. A.

ORG: none

TITLE: Certain electrophysical properties of semiconductors based on oxides of metals with changeable valence 21,44,55 49 B+1 27

SOURCE: Khimicheskaya svyaz' v poluprovodnikakh i tverdykh telakh (Chemical bond in semiconductors and solids). Minsk, Nauka i tekhnika, 1965, 295-300

TOPIC TAGS: semiconductor, rare earth element, thermoelectric property, lanthanum compound, neodymium compound, chromium compound, thermal emf

ABSTRACT: The temperature dependence of the coefficient of thermoelectric force (α, in microvolts/degree) was measured for a series of strontium and calcium doped lanthanum and neodymium chromites. The doping of these Perovskite-type chromites raises the valence of a portion of the chromium atoms to six according to the scheme: 21,44,55

$$(1-3x)NdCrO_3 + 3x\,SrO + \frac{3}{2}x\,Cr_2O_3 \rightarrow (Nd^{3+}_{1-3x}Sr^{2+}_{3x}Cr^{3+}_{1-x}Cr^{6+}_{x})O_3 + \frac{3}{4}x\,O_2.$$

Card 1/2

L 18055-66
ACC NR: AT6006176

where $x \leq 0.05$. This is reflected in a hole-type semiconductivity in the doped chromites. The electrical conductivity of the chromite samples was measured potentiometrically by a 500 kc volt-ammeter using alternating current. For each sample, the temperature (400-1000°K) and the potential difference (which is proportional to the logarithm of sample's electrical conductivity) were recorded simultaneously. The coefficient of thermal emf (α) was calculated using the temperature difference between two ends of the sample. The temperature dependence of the thermal emf coefficient, temperature dependence of specific electric resistivity, and the dependence of α on the temperature logarithm are graphed for several doped chromites. Orig. art. has: 3 figures, 3 formulas.

SUB CODE: 20 SUBM DATE: 31May65/ ORIG REF: 001/ OTH REF: 003

Card 2/2 SM

MAKSIMENKO, S.D., inzh.; TIMOFEYEV, V.A., inzh.

Graphic analysis of the calculation of the weight of flywheel for stamping press. Torf. prom. 38 no.7:18-20 '61. (MIRA 14:12)

1. Gipromestprom.
(Peat machinery)
(Flywheels)

MAKSIMENKO, S.S.

26011 Maksimenko, S.S. Meditsinskiy Kohtrol' Za Vod.snabzheniyem Voysk V Lageryakh. Voen-med. Zhurnal, 1948, No 6, S. 50-53.

SO: Letopis' Zhurnal Statey, No. 30, Moscow, 1948

L 2521-65 EEO-2/EWT(d)/EWT(l)/EEC-4/EEC(t)/T/EED-2/FCS(k) Pn-4/Pp-4/Pac-4/
Pac-2 JK

ACCESSION NR: AP5002198 S/0017/64/000/012/0034/0035

AUTHOR: Maksimenko, V. (Colonel, Candidate of military sciences)

TITLE: Radio waves in war

SOURCE: Voyennyye znaniya, no. 12, 1964, 34-35

TOPIC TAGS: military communication, electronic equipment

ABSTRACT: A brief popular review is presented of the functions and role of electronic equipment in WW2 and in a conceivable future war. Information, taken from U.S. sources, includes: use of chaff by the Allied Forces in the bombing of Hamburg in June, 1943; the BSS system of automatic troop control; automatic jamming and other antiradar means; rocket-borne jamming stations; radar-destroying air-land rockets; jamming-proof electronic control and guidance systems. Orig. art. has: 1 figure.

ASSOCIATION: none

SUBMITTED: 00 ENCL: 00 SUB CODE: EC, MS

MAKSIMENKO, V.

Invitation to initiative. Voen. znan. 41 no.6:44 Je '65. (MIRA 18:5)

L 13092-63 BDS/EWT(1) AFFTC/ASD

ACCESSION NR: AP3003406 S/0051/63/015/001/0027/0030

AUTHOR: Generalov, N.A.; Losev, S.A.; Maksimenko, V.A. 52

TITLE: Absorption of ultraviolet radiation by highly heated carbon dioxide

SOURCE: Optika i spektroskopiya, v.15, no.1, 1963, 27-30

TOPIC TAGS: ultraviolet absorption, carbon dioxide, shock wave heating

ABSTRACT: The authors employed a procedure developed by them earlier (Nauch. dokl. vyssh. shkoly*. Fiz.-mat.nauki, No.5, 197, 1958 and Optika i spektroskopiya, Shornik 2, p.15, 1963) to study absorption of ultraviolet by carbon dioxide heated up to about 6300°K by shock waves. The shock waves produced by release of hydrogen and helium at 15 to 100 atmospheres were propagated in a 50 mm diameter shock wave tube plated on the inside with chromium. The initial pressure of the carbon dioxide varied from 0.76 to 13.5 mm Hg. An oscillographic technique was employed. The radiation source was a pulse operated DKSSh-1000 xenon discharge tube; the wavelength dependence of the absorption was studied in the range from 2170 to 3550 Angstrom. The velocity of the shock wave at 3 meters from the diaphragm separating the high and low pressure sections ranged from 1.5 to 4.25 km/sec. Plots for the

Card 1/2

L 13092-63
ACCESSION NR: AP3003406

absorption as a function of wavelength, gas temperature versus velocity and absorption cross section versus temperature are reproduced. It is found that Beer's law is obeyed. The question of dissociation of carbon dioxide molecules at high temperatures will be considered in a separate paper. Orig.art.has: 4 figures.

ASSOCIATION: none

SUBMITTED: 3Dec62 DATE ACQ: 30Jul63 ENCL: 00

SUB CODE: PH NO SOV REF: 002 OTHER: 003

Card 2/2

L 12415-63 EPR/EPA(b)/EPF(c)/EWP(q)/EWT(m)/BDS AFFTC/ASD Pg-4/Pt-4/Pr-4
RM/WW/JD/JW
ACCESSION NR: AP3001409 S/0020/63/150/004/0839/0841

AUTHOR: Losev, S. A.; Generalov, N. A.; Maksimenko, V. A.

TITLE: The investigation of the decomposition of carbon dioxide molecules at high temperatures

SOURCE: AN SSSR. Doklady, v. 150, no. 4, 1963, 839-841

TOPIC TAGS: decomposition of carbon dioxide

ABSTRACT: The distribution of absorptive capabilities of heated CO sub 2 which is distributed in the tube behind the shock wave, has been measured. The absorption was studied in the ultraviolet region with Lambda = 2380 angstrom and Lambda = 3000 angstrom. It was assumed that the excitation of the oscillations of the CO sub 2 molecules takes place much more rapidly than the decomposition, since the increase of absorption in front of the shock wave is associated with the excitation of CO sub 2 molecule oscillations, and the decrease of absorption is associated with the decomposition of CO sub 2. The obtained relationship of speed of decomposition of the CO sub 2 molecules points to the fact that the decomposition of CO sub 2 molecules takes place by means of a bimolecular

Card 1/2

L 12415-63
ACCESSION NR: AP3001409

2

reaction. It is important to note that the measured results of decomposition speed of CO sub 2 studied at two different wave lengths also coincide. "The authors express deep appreciation to O. H. Vinogradova for the chromatographic purification of the CO sub 2 used in our study." The orig. art. has: 3 graphs and 1 figure.

ASSOCIATION: Moskovskiy gosudarstvennyy universitet im. M. V. Lomonosova (Moscow State University)

SUBMITTED: 09Jan63 DATE ACQ: 01Jul63 ENCL: 00

SUB CODE: OO NO REF SOV: 003 OTHER: 005

Card 2/2

22315

183200

S/133/61/000/004/004/015
A054/A127

AUTHORS: Shul'te, Yu. A., Doctor of Technical Sciences, Professor; Garevskiy, I. A., Engineer; Leybenzon, S. A., Engineer; Maksimenko, V. D., Engineer; Tregubenko, A. F., Engineer; Speranskiy, B. S., Engineer; Frantsov, V. P., Engineer, and Smolyakov, V. F., Engineer

TITLE: Nature of flaws in steel ingots produced by the electro-slag method

PERIODICAL: Stal', no. 4, 1961, 322 - 326

TEXT: The technology of electro-slag remelting was established by the Institut elektrosvarki im. Ye. O. Patona (Institute of Electrowelding im. Ye. O. Paton). A three-phase electroslag furnace (2250 kW) which can smelt ingots 750 kg in weight and 300 mm in diameter simultaneously in 3 crystallizers has now been in operation for more than 2 years. In order to improve the process, the nature of the flaws occurring in electroslag-remelted steel was studied and tests were carried out on ingots produced on an industrial scale, whereas an A-550 (A-550) laboratory plant, designed by

Card 1/8

S/133/61/000/004/004/015
A054/A127

Nature of flaws in steel ingots produced by...

the same institute was used for the purpose of reproducing the defects. The crystallizer of this equipment was 100 mm in diameter, 600 mm in length, the ingots weighed 30 kg, remelting took about 35 minutes (at 40 v and 1.2 ka). In this process the ingot surface is not in contact with the atmosphere. The slag bath is rising at the same rate at which the ingot is smelting, while a thin slag layer forms on the crystallizer wall, the relief of which is closely reproduced by the ingot surface. Three zones can be distinguished in the smelting process. A non-uniform structure, having a serrated surface develops in the bottom zone during heating of the ingot. The metal contains slag inclusions and flux, at the place of inoculation. This zone could be reduced by applying a thermite mix (20% saltpeter, 20% aluminum and magnesium powder, 60% AH-Φ-6 /AN-F-6/ flux) at the exact centre of the electrode. The slag bath develops more rapidly in the heating period when maximum power is applied. By controlling the feed of the electrodes manually, any fluctuations in current intensity could be eliminated. At about 1800°C a homogeneous slag bath is formed, while at the same time the smelting of the second zone of the ingot also starts; the thickness of the slag lining on the crystallizer wall decreases to 1.0 - 1.5 mm. In this phase

Nature of flaws in steel ingots produced by...

the electric system of the crystallizer is switched to automatic operation. The electrode is fed into the slag bath at a rate corresponding with the optimum current intensity. Under these stabilized conditions the slag bath is regularly rising, leaving a smooth lining behind. The third, liquid-slag zone is the actual smelting zone, both in respect of electric power and physico-chemical effects. Here takes place the smelting of the electrode and the refining of the metal flow. The height and volume of this zone are the most important factors of the entire process The slag content for all three zones was established. The greater the crystallizer-diameter, the less slag was found in the lining (Table 1). The ingot surface in the second zone is flawless, smooth and does not require any finishing. This is one of the greatest advantages of this method, which, however, can be obtained only by a stable electric system, faultless operation of the automatic furnace control as the slightest disturbance in any of these factors results in surface defects. These appear in the macrostructure and are similar to the impurities usually found in electrosteel In 1959 data were compiled for ball bearing steel, showing the relation between the crystallizer height, diameter and amount of defects (Table 2). Thus, the greater the diameter of the crystallizer, the more flaws could be observed in

Nature of flaws in steel ingots produced by...

the ingot. As regards the smelting time, it was found that the first and the last periods produced the greatest number of defects. Metallographic study of faulty rods revealed sickle and spider-shaped cracks, lenticular inclusions, differing in colour from the flawless parts of the metal, in some templates occupying more than 50% of the total surface. In microhardness tests it was observed that in the impurified zones the hardness coefficients displayed a wide range of values. It could also be observed that the flaws penetrate fairly deeply, indicating that the factors impurifying the casting are active a long time (Fig. 5). Petrographic tests proved that the inclusions are similar to those forming in free crystallization and contain mainly calciumfluoride globules, needle-shaped corundum crystals, aluminum-calcium compounds. Among the impurities slag-inclusions, 1 - 2 mm in size, were found in irregular arrangement. Inclusions were present in the low-temperature zones of the metal, promoting the mixing of slag particles in the liquid metal. The lower the crystallization temperature, the more flaws were found. The viscosity of the metal increases due to intensive cooling and this promotes the capturing of slag particles. Based on the tests with the A-550 equipment the permissible minimum length of the

Card 4/8

Nature of flaws in steel ingots produced by...

bottom part of the ingot was defined. It was also possible to prevent the formation of impurities in the top of the ingot by ensuring stable electric operational conditions until the end of the process. The optimum power was obtained with 55 v instead of 40 and 6 ka. However, even the optimum electric parameters only yield flawless casting provided the power conditions are very stable throughout the entire process. By applying these new electrical parameters the impurities could be decreased from 31.6% to 0.7%. In some tests Ya. I. Spektor took part.

Card 5/8

MAKSIMENKO, V.D.

Electric slag melting of steel for high-quality castings. Lit. proizv. no.11:9-10 N '61. (MIRA 14:10)
(Steel--Metallurgy) (Zone melting)

S/032/61/027/004/008/028
B110/B215

AUTHORS: Shul'te, Yu. A., Garevskikh, I. A., Maksimenko, V. D., Leybenzon, S. A., Frantsov, V. P., Smolyakov, V. F., and Stetsenko, N. A.

TITLE: Scale for estimating nonmetallic inclusions in electroscoriaceous steel

PERIODICAL: Zavodskaya laboratoriya, v. 27, no. 4, 1961, 422-424

TEXT: A high-purity metal is obtained by the electroscoriaceous method of melting. Inclusions in electroscoriaceous steel differ from those in ordinary steel in kind and character of their distribution. Traditional scales, therefore, cannot be used for the correct estimation of impurities, especially oxidic inclusions. The examination of nonmetallic inclusions in a large number of melts of electroscoriaceous steel allowed the development of a new scale (Fig.) in which the total area of disoriented inclusions, their number within the field of vision, and the admissible dimensions of the individual inclusions are taken into account (Table 1). Oxidic and sulfidic inclusions are shown in the photographs

Card 1/6

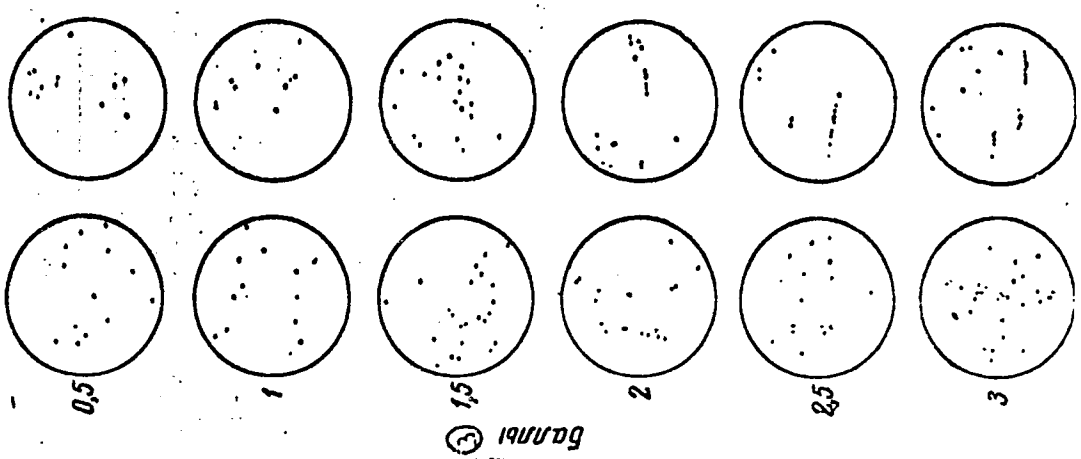
Scale for estimating nonmetallic...

of the new scale. Large globular, oxidic inclusions are measured with an eyepiece micrometer. The degree of impurities in the ground face is estimated according to the field of vision with the largest number of impurities. The authors tested the scale and controlled 682 specimens of 200 electroscoriaceous melts of ball-bearing steel types ШХ15 (ShKh 15) and ШХ15СГ (ShKh15SG). At the same time, the specimen was estimated by the traditional ГОСТ 801-47 (GOST 801-47) scale (Table 2). The indices of estimation by both scales differed but slightly, although the estimations of the individual melts differed largely from the control. Examinations of nonmetallic inclusions showed that the scale can also be used for other steels melted out by the electroscoriaceous method and for estimating melts in the vacuum arc containing the same type of inclusions. Ye. I. Boyko's collaboration is mentioned. [Abstracter's note: Complete translation]. There are 1 figure, 2 tables, and 2 Soviet-bloc references.

ASSOCIATION: Zaporozhskiy mashinostroitel'nyy institut (Zaporozh'ye Machine-building Institute); zavod "Dneprospetsstal'" ("Dneprospetsstal'" Plant)

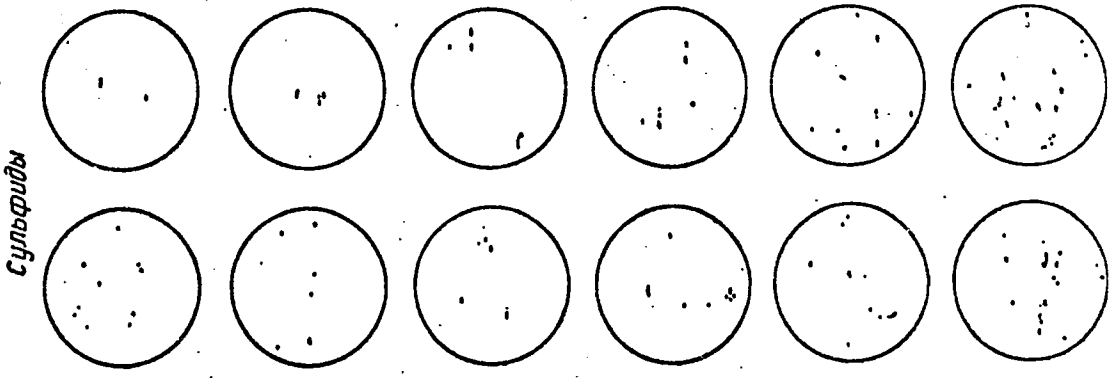
S/032/61/027/004/008/028
B110/B215

Scale for estimating nonmetallic...



Card 3/6

Scale for estimating nonmetallic...



Legend to the figure: Scale for estimating nonmetallic inclusions in electroscoriaceous steel, in hundredfold magnification; (1) oxides; (2) sulfides; (3) degrees.

Card 4/6

Scale for estimating nonmetallic...

Таблица 1

Характеристики оценки включений

(1) Баллы	0,5	1,0	1,5	2,0	2,5	3,0
(2) Суммарная площадь включений в поле зрения, μ^2	До 100	100—200	200—300	300—500	500—1000	1000
(3) Максимальный размер глобулей, μ	До 10	12	15	20	25	30

Table 1

Legend to Table 1: Characteristics in the estimation of inclusions; (1) degrees; (2) total areas of inclusions within field of vision, μ^2; (3) maximum dimensions of globules, μ.

Card 5/6

S/032/61/027/004/008/028
B110/B215

Legend to Table 2: Average size of nonmetallic inclusions estimated in ШХ15 (ShKh15) and ШХ15СГ (ShKh15SG) steels; (1) scale; (2) medium degree; (3) oxides; (4) sulfides; (5) globules; (6) GOST 801-47; (7) new scale.

Таблица 2

Величина среднего балла при оценке неметаллических включений в сталях ШХ15 и ШХ15СГ

(1) Шкала	(2) Средний балл		
	(3) оксиды	(4) сульфиды	(5) глобули
(6) ГОСТ 801—47...	1,00	1,23	0,80
(7) Новая	1,11	1,06	0,74

Table 2

S/133/62/000/001/003/010
A054/A127

AUTHORS: Garevskikh, I. A., Shul'te, Yu. A., Maksimenko, V. D., Speranskiy, B. S.

TITLE: The advantages and problems of improving the electroslag remelting of steel

PERIODICAL: Stal', no. 1, 1962, 39 - 41

TEXT: Investigations and experience show that a major factor affecting the efficiency of electroslag remelting (the intensity of the heat-transfer and refining) is the formation of liquid drops separating from the ingot, serving in the process as a self-baking electrode, immersed in the overheated (425 - 565°C above normal temperature) slag. The characteristics of the electrode drops were studied on industrial-scale equipment, at 55 V and 6kA. The drops were taken partly from the bottom zone of the slag lining, partly from the slag "cap" on the ingot. Their sizes were between 2.37 and 0.25 mm or even smaller. The drops are characterized by a high purity, visible inclusions can hardly be found. Coarse oxide inclusions disappear almost entirely, spheroidal inclusions decrease considerably. The statistical analysis of 2,140 samples obtained in 526 heats of ball bearing

Card 1/3

steel (in 1960) showed that remelted steel displays a high degree of purity, most probably due to the intensive refining of the liquid steel by synthetic, iron-free slag at increased temperatures. The sulfide inclusions disappear in proportion to the sulfur content of the initial material. When remelting ball bearing steel, the degree of desulfuration attains 25 - 30%. For this kind of steel the electrode-ingot must not contain more than 0.007% sulfur. When remelting ingots with a 0.005% sulfur content, in the A 550 (A 550) equipment, with a 100-mm diameter mold, the sulfur content after remelting, decreased to 0.003% and no sulfide inclusions could be observed on the forged products (40 and 25 mm in diameter). Besides drop-formation, the composition of the fluxing agent also affects the refining process. 2,955 samples from 500 heats of ball bearing steel were remelted using the АНФ-6 (ANF-6) fluxing agent containing 14.8 - 32.9% Al_2O_3. The higher the aluminum oxide content of the flux, the purer was the steel, it was found. This is most probably due to the fact that aluminum oxide in the flux increases the desulfurizing activity of the slag (which consists of lime, fluorite, aluminum oxides). The structure of the slag made fluxible with various kinds of agents was also studied. Part of the slags (Group A) is light-yellow coloured on the fracture surface, its grains are well-developed, have a red colour and are acicular-

Card 2/3

The advantages and problems of...

they contain calcium fluoride in the form of oval grains, which are surrounded by an easily melting component, lighter in colour and with a refractive index of 1,604 - 1,610. Both phases are present in about the same volume. Moreover, there is also some corundum in this structure. Slags with such structural characteristics permit a smooth remelting process with low power consumption to be carried out. In some cases, however, the slag has a less bright colour and a coarse-grained structure, (Group B). The coating which surrounds the calcium fluoride grains is about 5 times less voluminous than in the former group. Large prismatic corundum grains make up about 30% of the total volume. With such a structure, the slag coating becomes coarse, remelting takes longer and more power is consumed, while the amount of sulfide and spheroidal inclusions also increases. The mineralogical composition of the fluxing agent, therefore, has a marked effect on the steel refining process and needs further improvement. There are 7 figures and 10 Soviet-bloc references.

ASSOCIATION: Zaporozhskiy mashinostroitel'nyy institut (Zaporozh'ye Mechanical Engineering Institute)

Card 3/3

L 9978-63 EWP(q)/EWT(m)/BDS--AFFTC/ASD--JD

ACCESSION NR: AP3001376 S/0148/63/000/005/0076/0080

AUTHOR: Shul'te, Yu. A.; Garevskikh, I. A.; Maksimenko, V. D.; Speranskiy, B. S.

TITLE: Problems of crystallization of electroslag-melted ingots

SOURCE: IVUZ. Chernaya metallurgiya, no. 5, 1963, 76-80

TOPIC TAGS: electroslag melting, ball-bearing steel, impurities, nonmetallic inclusions, ingot diameter effect, bath depth effect, solidification rate

ABSTRACT: The Zaporozhskiy Mashinostroitel'nyy Institut (Zaporozh'ye Machine Building Institute) in cooperation with the Dneprospetsstal' Plant has studied the process of ingot crystallization in electroslag melting in an attempt to determine melting conditions that would ensure the best metal quality. Laboratory- and production-scale tests showed that the ratio of ingot diameter D to the depth of liquid metal bath h is the most indicative characteristic of the process, and that D/h = 2 is the optimum value for ingots 100--300 mm in diameter. Higher D/h values indicate that the temperature of metal and slag

Card 1/2

L 9978-63
ACCESSION NR: AP3001376

baths is too low, which leads to poor separation of slag from metal and increased amount of slag inclusions. Lower D/h values mean that the metal and slag temperature is too high, which results in extensive segregation, coagulation of nonmetallic inclusions, and an increased amount of impurities. With increasing ingot diameter, the solidification rate decreases, for instance, from 1.25 cm/min for 100 mm diameter to 0.64 for 300 mm (at D/h = 2). This also promotes segregation. Ingots of ShKh15 steel [AISI E52100] 100 mm in diameter had considerably less segregation and smaller inclusions than ingots 300 mm in diameter. Orig. art. has: 3 figures and 2 tables.

ASSOCIATION: Zaporozhskiy mashinostroitel'nyy institut (Zaporozh'ye Machine Building Institute)

SUBMITTED: 14Aug62 DATE ACQ: 01Jul63 ENCL: 00

SUB CODE: 00 NO REF SOV: 006 OTHER: 000

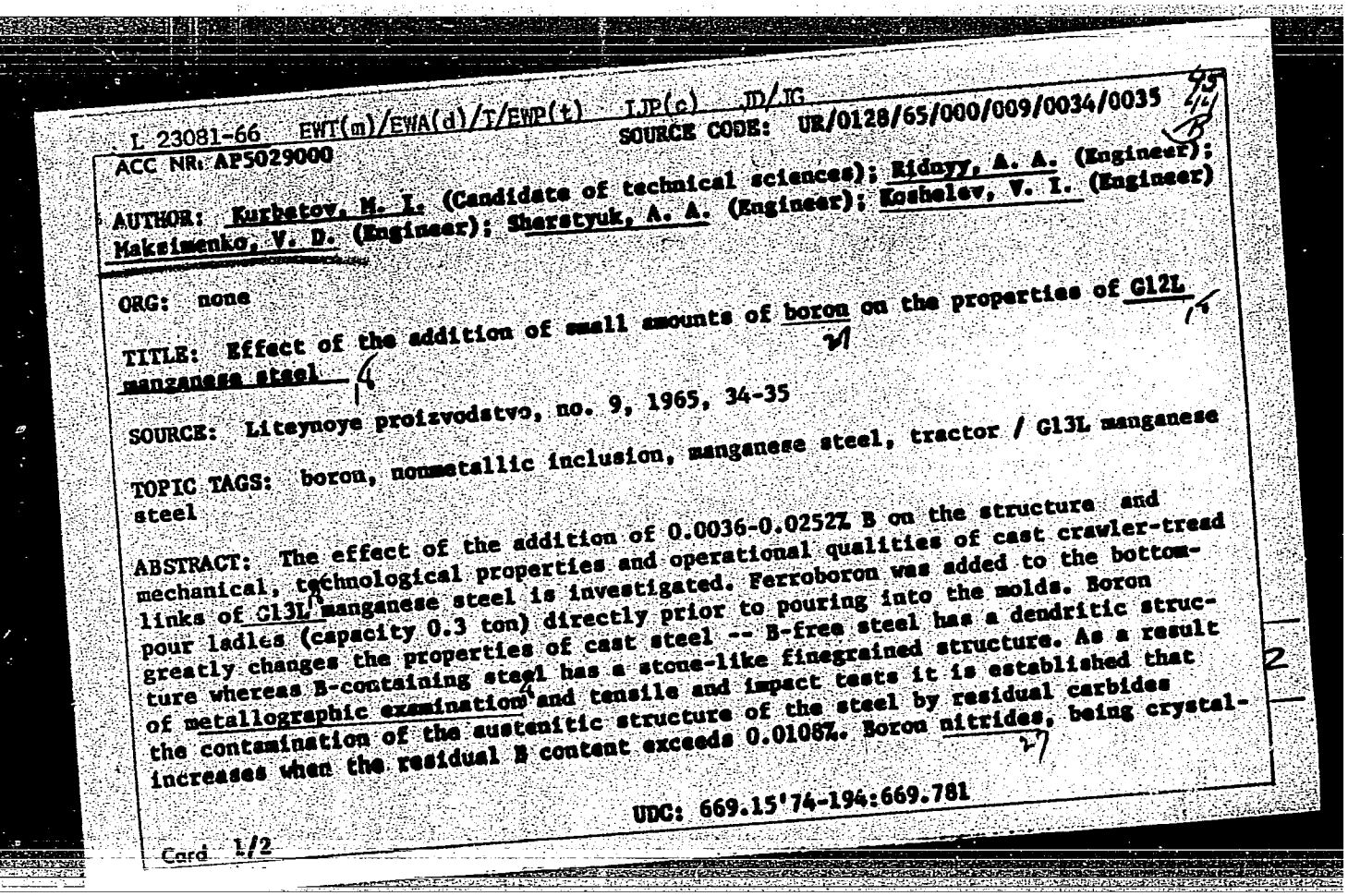
ph/49
Card 2/2

MAKSIMENKO, Vasiliy Danilovich

[Elite of the mine] Shakhta gvardiiachylary. Frunze, Kyrgyzstan mamlekettik basmasy, 1963. 38 p. [In Kirghiz] (MIRA 17:9)

KURBATOV, M.I., kand. tekh. nauk; RIDNYY, A.A., inzh.; MAKSIMENKO, V.D., inzh.; SHERSTYUK, A.A., inzh.; KOSHELEV, V.I., inzh.

Effect of small additions of boron on the properties of G13L steel. Lit. proizv. no.9:34-35 S '65. (MIRA 18:10)



L 23081-66 EWT(m)/EWA(d)/T/EWP(t) IJP(c) JD/JG
ACC NR: AP5029000 SOURCE CODE: UR/0128/65/000/009/0034/0035

AUTHOR: Kurbatov, M. I. (Candidate of technical sciences); Ridnyy, A. A. (Engineer); Maksimenko, V. D. (Engineer); Sheratyuk, A. A. (Engineer); Koshelev, V. I. (Engineer)

ORG: none

TITLE: Effect of the addition of small amounts of boron on the properties of G12L manganese steel

SOURCE: Liteynoye proizvodstvo, no. 9, 1965, 34-35

TOPIC TAGS: boron, nonmetallic inclusion, manganese steel, tractor / G13L manganese steel

ABSTRACT: The effect of the addition of 0.0036-0.0252% B on the structure and mechanical, technological properties and operational qualities of cast crawler-tread links of G13L manganese steel is investigated. Ferroboron was added to the bottom-pour ladles (capacity 0.3 ton) directly prior to pouring into the molds. Boron greatly changes the properties of cast steel -- B-free steel has a dendritic structure whereas B-containing steel has a stone-like finegrained structure. As a result of metallographic examination and tensile and impact tests it is established that the contamination of the austenitic structure of the steel by residual carbides increases when the residual B content exceeds 0.0108%. Boron nitrides, being crystal-

UDC: 669.15'74-194:669.781

Card 1/2

L 23081-66

ACC NR: AP5029000

lization nuclei, contribute to a more finegrained structure of the castings but if the B content is too high, owing to the decrease in its solubility, B, as a surface-active element, is displaced toward the grain boundaries where, evidently, its oxides, carbides and borides also are located. The mechanical properties of B--treated steel: σ_b, δ and ψ, slightly increase if B content is not more than 0.0072% but sharply decrease if the B content exceeds this limit. These findings confirm that increasing the B content above the solubility limit of B in Fe leads to the formation of a large number of nonmetallic inclusions along grain boundaries and a sharp decrease in the mechanical properties of steel, as was besides also corroborated by the bending and wear resistance tests of crawler-tread links. Thus, in the shops of the tractor plants it is advisable to inoculate steel with B in order to obtain castings with a finegrained structure provided that the B content does not exceed 0.007%. Orig. art. has: 2 tables, 1 figure.

SUB CODE: 11, 13, 20/ SUBM DATE: none/ ORIG REF: 000/ OTH REF: 000

Card 2/2 ULR

ACCESSION NR: AT4019737 S/0000/63/000/000/0066/0076

AUTHOR: Maksy*menko, V. F. (Maksimenko, V. F.); Lyashenko, I. M. (Lyashenko, I. N.)

TITLE: An algorithm for compiling certain schemes of mass maintenance

SOURCE: AN UkrRSR. Insty*tut kibernety*ky*. Obchy*slyuval'na matematy*ka i tekhnika (Computer mathematics and engineering). Kiev, Vy*d-vo AN UkrRSR, 1963, 66-76

TOPIC TAGS: mass maintenance scheme, algorithm, logic scheme, electronic computer

ABSTRACT: The article is concerned with the question of automizing one class of mass maintenance problems, examples of which are problems of setting up different kinds of schedules (for schools, colleges, etc.). The author introduces a possible variation of a logic scheme for solving a similar class of problems.

The proposed algorithm permits solving problems of compiling maintenance schemes both with electronic computers and without them. By means of an electronic computer, however, several variations of maintenance schemes are attained,

Card 1/2

ACCESSION NR: AT4019737

and from them the shortest variation can be chosen. The use of the given algorithm not only facilitates the process of compiling the maintenance scheme, but also ensures a considerably higher quality of the scheme, as compared to schemes attained by using conventional methods. Orig. art. has: 3 figures, 8 tables.

ASSOCIATION: none

SUBMITTED: 19Sep63	DATE ACQ: 06Jan64	ENCL: 00
SUB CODE: MM	NO REF SOV: 000	OTHER: 000

Card 2/2

MAKSIMENKO, V.

USSR / Cultivated Plants. Cereals. II

Abs Jour : Ref Zhur - Biol., No 8, 1958, No 34645

Author : Maksimenko, V.
Inst : Not given
Title : Appearance of Corn in Siberia.

Orig Pub : S. kh. Sibiri, 1957, No 6, 101-103.

Abstract : Based on published material, the author concludes that corn was introduced in Siberia in the middle or even at the beginning of the 19th century. In the reports of the Free Economy Society for the year 1950, data regarding the testing of three varieties of corn in the district of Enisey are contained. Corn received considerable propagation at the end of the 19th century during the mass migration of

Card 1/2

МАКСИМЕНКО, В.

MAKSIMENKO, V., nauchnyy sotrudnik

Twentieth anniversary of the Novosibirsk Agricultural Experiment Station. Nauka i pered. op. v sel'khoz. 8 no.1:60 Ja '58.
(MIRA 11:2)

1. Novosibirskaya sel'skokhozyaystvennaya opytnaya stantsiya.
(Novosibirsk--Agricultural experiment Stations)

MAKSIMENKO, V., nauchnyy sotrudnik

Masters of raising high-quality crops. Nauka i pered. op. v sel'khoz. 8 no. 7:13 Jl '58. (MIRA 11:8)

1. Novosibirskaya sel'skokhozyaystvennaya opytnaya stantsiya.
(Field crops)