BULGARIA

ANTONOV, E., Colonel of the Medical Service

"Treatment of Yperite Skin Lesions in Human Beings"

Sofia, Voenno Meditsinsko Delo, Vol 21, No 1, Feb 66, pp 35-40.

Abstract: Treatment of 9 patients with skin lesions due to contact with yperite is described. Good results in the therapy of the skin lesions were obtained by external application of a "biostimulating ointment" containing terramycin, insulin, vitamin A, vitamin B_1, acetylcholine, lanolin, and vaseline. The ointment, which had been previously found effective in the treatment of atonic lesions of other etiology in human beings and of necrotic ulcers produced by yperite in experimental animals, also had a good and relatively rapid effect on more deeply located yperite injuries that were exhibited by the patients. Figures, Russian summary.

Dermatology

BULGARIA

ANTONOV, Evg., Col; and ALEKSIEV, Iv., Lt. Col.; Army Medical Service

"Liquid Nitrogen in the Therapy of Certain Dermatological Diseases."

Sofia, Voenno Meditsinsko Delo, Vol 21, No 2, 1966, pp 46-49

Abstract [authors' Russian summary, modified]: Results are reported in treating 1028 dermatological patients with liquid nitrogen. The authors expand considerably the indications for the application of this method to alopecia cicatrisata, granuloma pyogenicum, xanthomas, prurigo nodularis, psoriasis vulgaris, chronic eczemas, calluses, folliculitis keloidalis, recurrent herpes, etc. In view of the availability, ease of application and good therapeutical and cosmetic results of this method, its widespread practical application is recommended. Three Soviet-bloc and five Western references.

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ANTONOV, F., insh.

Special problems in maintaining apartment houses in Noril'sk.
Zhil.-kom. khoz. 8 no.12:7-8 '58. (MIRA 13:1)

1.Tekhnicheskiy otdel Zhilishchno-kommunal'nogo upravleniya, g.
Noril'sk, Krasnoyarskiy kray.
(Norilsk--Apartment houses--Maintenance and repair)

ANTONOV, P., inzh.

How we prepare to control melt waters. Zhil.-kom.khoz. 10 no.3: 27-28 '60. (MIRA 13:7)

1. Tekhnicheskiy otdel zhilishchno-kommunal'nogo upravleniya, g. Noril'sk.
(Noril'sk--Snow removal)

ANTONOV, F., insh. (g. Noril'sk)

Methods for controlling the icing around buildings in Noril'sk.
Zhil.-kom.khoz. 10 no.9:11-12 '60. (MIRA 13:9)
(Noril'sk--Ice)

PEGUSHIN, G. (Noril'sk); ANTONOV, F. (Noril'sk)

Nonfreezing water post. Zhil.-kom. khoz. 11 no.11:25 N '61.
(MIRA 16:7)
(Pipe fittings)

OGRSHKOV, N., narodnyy sud'ya (Suzdal', Vladimirskoy oblasti); ANTONOV, F., inzh.; TOPORKOV, F.; LYUBARSKIY, S. (Odessa) KARAS', P. (Odessa); GRIGOR'YEVA, M.

Readers report, advise, and suggest. Zhil.-kom. khoz. 12 no.4:30-31 Ap '62. (MIRA 15:7)

1. Zhilishchno-kommunal'noye upravleniye, Noril'sk (for Antonov). 2. Nachal'nik otdela Ministerstva kommunal'nogo khozyaystva Komi ASSR, Syktyvkar (for Toporkov). 3. Predsedatel' soveta pensionerov doma No.4, Kuskovo (Moskva). (for Grigor'yeva).
(Community life)

ANTONOV, P.

Houses on pile foundations. Zhil.-kom. khoz. 13 no.3:13 Mr '63.
(MIRA 16:3)

1. Starshiy inzh. Zhilishchno-kommunal'nogo upravleniya, Noril'sk, i vneshtatnyy korrespondent zhurnala "Zhilishchno-kommunal'noye khozyaystvo".
(Noril'sk—Foundations)

DEMIN, A.M., kand.tekhn.nauk; ANTONOV, F.A., inzh.

Computation of slopes in deep open pits. Nauch.soob.IGD 24:94-105 '65. (MIRA 18:10)

02451

9.4220 S/141/60/003/03/006/014
E192/E382

AUTHORS: Akhmanov, S.A. and Antonov, F.G.

TITLE: Amplitude Oscillations in a Pulse Generator Based on a Reflex Klystron

PERIODICAL: Izvestiya vysshikh uchebnykh zavedeniy, Radiofizika, 1960, Vol. 3, No. 3, pp 405 - 418

TEXT: An investigation of the unidimensional distribution functions characterising the amplitude transient in klystrons was carried out. The functions of interest were $W_{t_i}(A)$, which describes a distribution of the amplitude at various time instants t_i and $W_{A_i}(t)$, describing the probability of reaching a given value of the amplitude A_i at a time t. These functions were determined experimentally for an "autonomous" reflex klystron and for a klystron which was "excited" by an external signal. The block schematic of the experimental equipment operating at the wavelength of 10 cm is shown in Fig. 1. This consists of: 1) a modulating generator; 2) a standard generator; 3) a delay

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Amplitude Oscillations in a Pulse Generator Based on a Reflex Klystron

line; 4) a sawtooth-voltage generator; 5) a pulse oscillograph; 6) a discriminator; 7) a sensitive power meter; 8) a wideband amplifier; 9) a three-branch waveguide; 10) the klystron; 11) a wavemeter; 12) an ultrahigh-frequency generator; 13) a spectrum analyzer and 14) a measuring line. The generator of the standard pulses was employed to trigger the time base of the oscillograph and a generator of rectangular pulses having a duration ranging from 0.5 to 10 μs and a rise time of less than 0.1 μs; the latter was used to modulate the reflector of the klystron. The envelopes of the high-frequency pulses generated by the klystron were observed on the screen of the oscillograph. If the klystron was operated a large number of times, it was possible to investigate the desired random process; the envelopes of the klystron pulses were photographed and the distribution functions $W_t(A)$ and $W_A(t)$ were

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determined by photometering the film. A typical picture obtained on the oscillograph is shown in Figure 2. Since the axis of the abscissa is the time axis, the function $W_A(t)$ is obtained by photometering of the oscillogram along the time axis. By photometering the film along the axis of the ordinates, it is possible to obtain the function $W_t(A)$. The experimental results are shown in Figs. 3-6. Fig. 3 shows the function $W_A(t)$ for various reflector voltages. The distribution function of the ratio of a given amplitude to its steady-state value ($x = A/A_y$) is plotted in Fig. 4 against x for various values of [illegible], where [illegible] denotes the instant of application of the modulating pulse. From the experimentally determined function $W_A(t)$, it is possible to determine the dispersion $\overline{\Delta t^2}$

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of the time necessary for reaching an amplitude A_i and the average time $\bar{t}$ necessary for reaching the above amplitude. Figure 5 shows the square root of the dispersion as a function of P/P_{max}, which represents the ratio of the power at a given point of the generation zone to the power at the centre of the zone. The dispersion of the quantity $x = A/A_y$ as a function of t is illustrated in Fig. 6, where the first curve corresponds to the power ratio of 0.7 and the second curve is for the power ratio of 0.45. The above results can be explained by considering the dynamic operation of a klystron. It is assumed that the amplitude transient is described by:

$$A(t) = \frac{A_y}{\sqrt{1 + Ce^{-2\beta t}}} \qquad (1)$$

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where C is a quantity determined by the initial oscillation amplitude in the resonator and β is the increment defined by Eq.(2) (Ref. 12). By analyzing Eq. (1), it is concluded that the shot and thermal noises are the main sources of the amplitude fluctuations observed in the transients. The two probability distribution functions can be expressed by Eqs. (3) and (4), provided it is assumed that the non-linearities in the klystron are of no consequence (Refs. 4,6,8). On the basis of Eqs. (3) and (4), it is found that the square root of the time dispersion is given by Eq (5), while the amplitude dispersion is defined by Eq. (6). By comparing the theoretical and experimnetal results (graphs of Figs. 4 and 6 with the formulae (4) and (6)), it is seen that a satisfactory agreement between the two is observed only during the initial stage of the transient process. The average rise time of the amplitude transient can be reduced by introducing an external sinusoidal signal into the resonance system of the generator. This method was investigated experimentally and it was found that if the external signal had a power lower

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than 10^{-9} W, it had no effect on the rise time of the oscillation amplitude; however, at powers of the order of 10^{-6} W, a significant improvement could be observed. This is illustrated in Fig. 7. The authors express their gratitude to S.D. Gvozdova for her constant interest in this work and to G.A. Yelkin and I.T. Trofimenko for discussing the results. The authors also thank I.L. Bershteyn for reading the manuscript and for valuable remarks. There are 7 figures and 14 references: 2 English, 1 German and 11 Soviet.

ASSOCIATION: Moskovskiy gosudarstvennyy universitet (Moscow State University)

SUBMITTED: October 23, 1959

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DOBROSEL'SKIY, K.M.; ANTONOV, P.I.; USPENSKIY, V.K.; BERLYAND, A.U., redaktor; KANDYKIN, A.Ye., tekhnicheskiy redaktor

[The work of the station in winter] Rabota stantsii zimoi. Moskva, Gos. transp.zhel-dor. izd-vo, 1951. 175 p. (MLRA 10:3)
(Railroads--Stations)

TYAZHKUN, Aleksey Petrovich, inzhener, PAVLYUK, Nikolay Stepanovich, inzhener,† KOSOGOROVA, Yelena Petrovna, inzhener; ANTONOV, F.I. redaktor; VERINA, O.P., tekhnicheskiy redaktor.

[Work practice of maintenance men of the Promyshlennaya section of the Tomsk railroad] Opyt raboty putseitsev Promyshlenskoi distatsii Tomskoi dorogi. Moskva, Gos.transp.zhel-dor izd-vo 1955. 33 p. (MLRA 8:11)
(Kemerovo Province--Railroads--Maintenance and repair)

ANTONOV, F.I., inzhener.

Prospects for the over-all mechanization of routine track maintenance.
Zheldor.transp. 39 no.6:38-43 Je '57. (MLRA 10:7)
(Railroads--Maintenance and repair)

MEL'NIK, D.M.; KOMAROV, A.A.; ANTONOV, F.I.; OBUKHOV, L.M.; LYAKHOVICH, V.B.; POPOV, A.V., inzh., red.; DOBROVA, Ye.N., tekhn.red.

[Mechanization of snow protection and removal on railroads] Mekhanizatsiia snegouborki i snegozashchita na zheleznykh dorogakh. Moskva, Gos.transp.zhel-dor.izd-vo. 1959. 112 p. (Moscow. Vsesoiuznyi nauchno-issledovatel'skii institut zheleznodorozhnogo transporta. Trudy, no.168) (MIRA 12:4)
(Railroads--Snow protection and removal)

ANTONOV, F.I., insh.

Types of mechanisms and work organization systems for track maintenance. Trudy TSNII MPS no.178:4-22 '59.

(Railroads--Track) (MIRA 13:4)

FEDULOV, Vasiliy Fedorovich; ANTONOV, Fedor Ivanovich; ZAKATALOVA, Aleksandra Iosifovna; ORLOVA, T.A., red.

[Characteristics of the maintenance of tracks with reinforced concrete ties] Osobennosti soderzhaniia puti s zhelezobetonnymi shpalami. Moskva, Transport, 1964. 19 p. (MIRA 17:10)

RABETS, A.L.; ANTONOV, G.A.

Universal clamping and feeding draw-in chucks for automatic lathes. Mashinostroitel' no. 5:26 My '64. (MIRA 17:7)

AKHMANOV, S.A.; ANTONOV, O.F.

Amplitude fluctuations in a reflex klystron pulse oscillator.
Izv.vys.ucheb.zav.; radiofiz. 3 no.3:405-418 '60. (MIRA 13:8)

1. Moskovskiy gosudarstvennyy universitet.
(Klystrons) (Oscillators, Electric)

ANTONOV, G.G., kontr-admiral

Heirs of military glory. Mor. sbor. 48 no.4:25-29 Ap '65.
(MIRA 18:6)

S/131/60/000/05/016
B015/B011

AUTHORS: Miroshnichenko, A. M., Vinokur, G. E., Antonov, I. I., Sinkovich, B. D., Molchanova, M. M., Faynerman, M. A., Khil'ko, M. M.

TITLE: Magnesite Bricks for Checkerworks of Regenerators in Open-hearth Furnaces

PERIODICAL: Ogneupory, 1960, No. 5, pp. 197-207

TEXT: A. S. Frenkel' found out that the cause underlying the loosening of forsterite bricks hitherto used in gas generator checkerworks is in the change taking place in the volume of iron oxides contained in them. This is particularly felt in an increased magnesioferrite content and a temperature of over 800° (Fig. 1). Magnesite has a higher heat conduction number (Fig. 2) and a higher heat capacity (Fig. 3) than fire-clay and Dinas clay. A. S. Frenkel', K. M. Shmukler of the Ukrainskiy institut ogneuporov (Ukrainian Institute of Refractories) tested magnesite bricks in regenerator checkerworks. Bricks 380 x 150 x 75 mm large were produced by the opytnyy zavod

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Magnesite Bricks for Checkerworks of Regenerators in Open-hearth Furnaces

S/131/60/000/09/02/010
B015/B011

UNIIO (Test Plant UNIIO). Table 1 shows the characteristics of magnesite products before their utilization, and table 2 after utilization, with part of them used in the unburned state. In gas regenerator checkerworks, these bricks showed good stability, and no important differences were found between burned and unburned products. With a view to conducting comprehensive operational tests, a set of 120 tons of burned and unburned small size bricks 182 x 150 x 65 mm large was produced under the supervision of A. S. Frenkel' at the Panteleymonovskiy zavod im. K. Marksa (Panteleymonovskiy Works imeni K. Marx) in accordance with the standards of the test plant UNIIO and in compliance with specifications laid down by the Panteleymonovskiy Works. The usual magnesite powder, the grain size of which is specified in table 3, was used for the purpose. Table 4 describes the raw masses and the weight by volume of brick clays, and table 5 shows the properties exhibited by the experimental sets. After 345 melts in the gas regenerator of a 370-ton open-hearth furnace, both unburned and burned magnesite bricks were in good condition (Figs. 4 and 5). Table 6 shows the indices of the furnace performance with magnesite and fire-clay checkerworks. Tables 7 and 8 show the chemical composition of the bricks after their use, as well as the

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Magnesite Bricks for Checkerworks of Regenerators in Open-hearth Furnaces

S/131/60/000/05/02/016
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results of the petrographic analyses conducted by M. Ye. Drizherus. No difference was found between burned and unburned bricks (Fig. 6). It is stated in conclusion that metallurgical magnesite powder products with low iron-oxide contents do not loosen up in gas regenerator checkerworks of open-hearth furnaces and exhibit high stability. Also checkerworks of burned and unburned bricks in gas regenerators of 370-ton furnaces, for which the oxygen technique was used, exhibited high stability. There are 6 figures, 6 tables, and 1 Soviet reference.

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S/131/60/000/06/02/012
B015/B007

AUTHORS: Antonov, G. I., Minkovich, B. D., Shvartser, M. A., Shakhov, G. S., Semenov, I. N., Khil'ko, M. M., Molchanova, M. I.

TITLE: Production and Practical Testing of Burned and Unburned Small-size Forsterite Bricks

PERIODICAL: Ogneupory, 1960, No. 6, pp. 244-251

TEXT: A. S. Frenkel', Ukrainskiy nauchno-issledovatel'skiy institut ogneuporov (Ukrainian Scientific Research Institute of Fireproof Materials) recommended measures for the purpose of increasing the production of refractory regenerator forsterite bricks as well as for the simultaneous reduction of their actual costs. This may be brought about by using unburned small-size bricks. For the purpose of checking these measures, the Panteleymonovskiy ogneupornyy zavod (Panteleymonovka Works of Fireproof Materials) together with the Ukrainian Scientific Research Institute of Fireproof Materials in 1957 produced industrial batches of burned and unburned small-size forsterite bricks. S. B. Vinokur, N. S. Mitrokhina, and B. A.

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Production and Practical Testing of Burned and Unburned Small-size Forsterite Bricks

S/131/60/000/06/02/012
B015/B007

Faynerman (Footnote p. 245) took part in this work. The chemical composition of the ground powders may be seen from Table 1, the characteristics of the pastes and blanks from Table 2, and the properties of the burned and unburned products from Table 3. The burned small-size forsterite bricks corresponded to UMTU 5127-55 (ChMTU 5127-55) and were not inferior to bricks of normal size. Fig. 1 shows the checkerwork of a regenerator made from small-size bricks. Experiments with these bricks were carried out at the zavod im. Kirova (Works imeni Kirov). The characteristics and mineralogical composition of the burned small-size forsterite bricks after their use are given in Tables 4 and 5. Table 6 shows the results of a furnace campaign, and Fig. 2 the temperature course of the regenerator. Figs. 3 and 4 show unburned forsterite bricks after being used, and Table 6 and Fig. 5 show the operational conditions of furnaces. Tables 7 and 8 give the characteristics and the mineralogical composition of unburned small-size forsterite bricks after use. Petrographical investigations were carried out by L. I. Karyakin (Ref. 2). By way of a summary, the authors declare that burned small-size bricks are in no way inferior to standard-size bricks. By the use of 50-60% of unburned bricks in furnace construction, the production of refractory forsterite bricks for generators may

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Production and Practical Testing of Burned and Unburned Small-size Forsterite Bricks

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be increased and their actual costs may be reduced by roughly 25%. There are 5 figures, and 8 tables.

ASSOCIATION: Ukrainskiy nauchno-issledovatel'skiy institut ogneuporov (Ukrainian Scientific Research Institute of Fireproof Materials) Antonov, G. I., Minkovich, B. D.; Panteleymonovskiy ogneupornyy zavod im. K. Marksa (Panteleymonovka Works of Fireproof Materials imeni K. Marx) Shvartser, M. A., Shakhov, G. S., Semenov, I. N.; Makeyevskiy metallurgicheskiy zavod im. Kirova (Makeyevka Metallurgical Plant imeni Kirov) Khil'ko, M. M., Molchanova, M. I.)

Card 3/3

ANTONOV, G. I., KHALEMSKIY, S.F., KAL'NOY, Ye.L, POLYAKOV, V.F.

Using unfired forsterite bricks in small-capacity furnaces.
Metallurg 5 no.7:17-20 Jl '60. (MIRA 13:7)

1. Ukrainskiy institut ogneuporov i zavod im. Malysheva.
(Open-hearth furnaces)
(Firebrick)

BERMAN, Sh.M.; YAN'SHINA, M.P.; SHAPOVALOV, V.S.; Prinimali uchastiye: KOVAL'CHUK, Ye.I.; PLOSHENKO, Ye.A.; POPOV, G.I.; SHKAPIN, V.G.; ANTONOV, G.Y.; KOVTUN, A.M.

Service conditions and processes of the wear of basic refractories in the bulkheads of open-hearth furnace front walls. Sbor.nauch. trud. UNIIO no.5:181-201 '61. (MIRA 15:12)

1. Ukrainskiy nauchno-issledovatel'skiy institut ogneuporov (for Antonov, Kovtun).
(Open-hearth furnaces--Design and construction)
(Firebrick--Testing)

ANTONOV, G.I., inzh.; BERMAN, SH.M., inzh.

Efficient design of regenerator checkerwork. Stal' 21 no.5:413-414 My '61. (MIRA 14:5)

1. Ukrainskiy nauchno-issledovatel'skiy institut ogneuporov.
(Open-hearth furnaces--Design and construction)

BERMAN, Sh.M.; YAN'SHINA, A.P.; ANTONOV, G.I.; PLOSHCHENKO, Ye.A.; SHAKHOV, N.A.; MOVLYAVA, A.P.

Testing non-fired forsterite brick in the checkered brickwork of air regenerators of 500-ton open-hearth furnaces. Ogneupory 26 no.6:272-273 '61. (MIRA 14:7)

1. Ukrainskiy nauchno-issledovatel'skiy institut ogneuporov (for Berman, Yan'shina, Antonov). 2. Alchevskiy metallurgicheskiy zavod (for Ploshchenko, Shakhov, Movlyava).
(Forsterite) (Open-hearth furnaces)

VINOKUR, S.B.; MIKHAYLETS, I.D.; ANTONOV, G.I.; KOSOGOLOV, V.V.; MINKOVICH, B.D.

Manufacture of magnesite-chrome brick for the dome of an open-hearth furnace with insulation. Ogneupory 26 no.8: 351-354 '61. (MIRA 14:9)

1. Panteleymonovskiy ogneupornyy zavod im. K. Marksa (for Vinokur, Mikhaylets). 2. Ukrainskiy nauchno-issledovatel'skiy institut ogneuporov (for Antonov, Kosogolov, Minkovich).
(Firebrick) (Open-hearth furnaces)

KHIL'KO, M.M., inzh.; ANTONOV, G.I., inzh.

Results of using forsterite checkers in open-hearth furnaces operating with oxygen. Met. i gornorud. prom. no.6:31-34 N-D '62. (MIRA 17:8)

1. Makeyevskiy metallurgicheskiy zavod im. Kirova (for Khil'ko).
2. Ukrainskiy nauchno-issledovatel'skiy institut ogneuporov (for Antonov).

ANTONOV, G.I.; HERMAN, Sh.M.; PLOSHCHENKO, Ye.A.; DRYAPIK, Ye.P.; SHAKHOV, N.A.; NAYDEK, V.L.

Gas flow distribution in regenerators of 500-ton open-hearth furnaces. Stal' 22 no.4:306-309 Ap '62. (MIRA 15:5)
(Open-hearth furnaces) (Gas flow)

KHIL'KO, M.M.; ANTONOV, O.I.

Use of forsterite checkers in high capacity open-hearth furnaces operating with oxygen. Ogneupory 27 no.3:141 '62. (MIRA 15:3)

1. Makeyevskiy metallurgicheskiy zavod imeni Kirova (for Khil'ko).
2. Ukrainskiy nauchno-issledovatel'skiy institut ogneuporov (for Antonov).
(Open-hearth furnaces) (Forsterite)

ANTONOV, G.I.; KHIL'KO, M.M.

Use of unfired checker refractories. Met. i gornorud. prom. no.3:37-40 My-Je '62. (MIRA 15:9)

1. Ukrainskiy institut ogneuporov (for Antonov). 2. Metallurgicheskiy zavod imeni Kirova (for Khil'ko).
(Refractory materials)
(Open-hearth furnaces--Design and construction)

FRENKEL', A.S.; SHNUKLER, K.M.; ANTONOV, G.I.; MINKOVICH, B.D.; SHAPOVALOV, V.S.

Use of synthetic forsterite brick for the checkerwork in open-hearth furnace gas regenerators. Sbor.nauch.trud. UNIIO no.5:168-180 '61. (MIRA 15:12)
(Firebrick) (Open-hearth furnaces—Design and construction)

ANTONOV, O. I., insh.; SHEYKO, I. I., insh.; KHALEMSKIY, S. F., insh.; KAL'NOY, Ye. L., insh.

Using 50 mm. facing bricks in open-hearth furnaces in foundries. Mashinostroenie no.5:42-43 S-O '62. (MIRA 16:1)

1. Ukrainskiy institut ogneuporov i Zavod im. Malysheva.

(Open hearth furnaces—Equipment and supplies)

ANTONOV, G.I.; BABENYSHEV, M.A.; BEHMAN, Sh.M.; SHAPOVALOV, E.V.

Useful life of the checkerwork in 600-ton open-hearth furnaces. Met. i gornorud. prom. no.3:32-34 My-Je '63. (MIRA 17:1)

ANTONOV, G.I.; BERMAN, Sh.M.; NOSOCCLOV, V.V.; SHEYKO, I.I.; KAL'NOY, Ye.L.; KHALEMSKIY, S.F.

Present state and prospects for the development of refractory linings in foundry open-hearth furnaces. Lit. proizv. no.6: 19-21 Je '63. (MIRA 16:7)

(Open-hearth furnaces--Design and construction)
(Refractory materials)

MINKOVICH, B.D.; ANTONOV, G.I.; KOSOGOLOV, V.V.; KOTIK, P.L.

Manufacture of dense magnesite-chromite refractories. Ogneupory 28 no.7:305-311 '63. (MIRA 16:9)

1. Ukrainskiy nauchno-issledovatel'skiy institut ogneuporov (for Minkovich, Antonov, Kosogolov). 2. Nikitovskiy dolomitnyy kombinat (for Kotik).

ANTONOV, G.I.; BERMAN, Sh.M.

Service life of refractories during intensified steel production in open-hearth furnaces. Stal' 24 no.1:25-27 Ja '64. (MIRA 17:2)

1. Ukrainskiy nauchno-issledovatel'skiy institut ogneuporov.

ANTONOV, G.I.; KOSOGOLOV, V.V.; NEDOSVITIY, V.P.; VINOGRADOV, N.I.; KHIL'KO, M.M.; MOLCHANOVA, M.I.

New design of ribbed arches with reinforced supports. Metallurg 9 no.2:18-21 F '64. (MIRA 17:3)

1. Ukrainskiy institut ogneuporov i Makeyevskiy metallurgicheskiy zavod.

ANTONOV, G.I., inzh.; BERMAN, Sh.M., inzh.

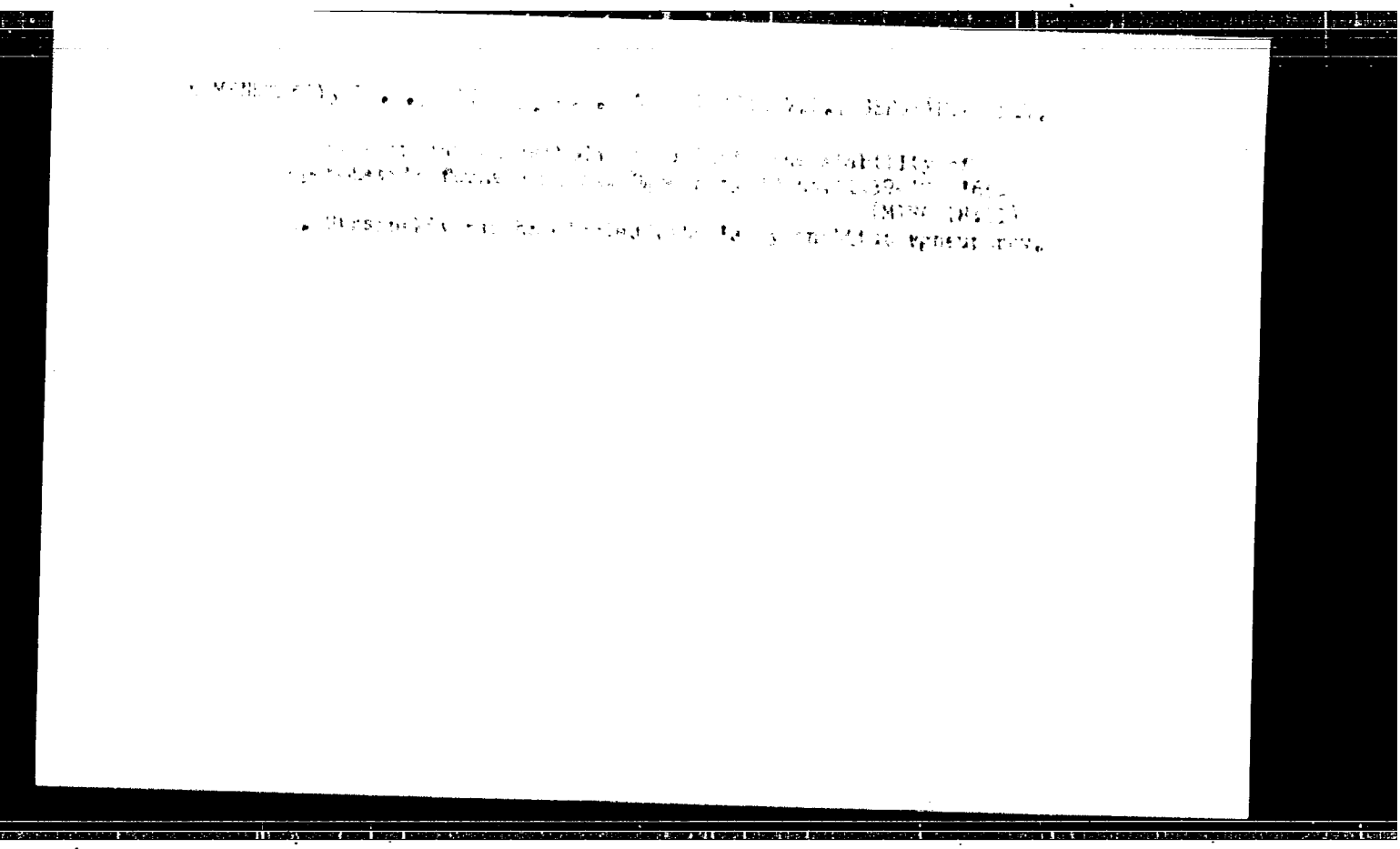
Selecting an efficient type of refractory material for lining open-hearth furnace regenerators. Stal' 24 no.10:893-895 O '64. (MIRA 17:12)

1. Ukrainskiy nauchno-issledovatel'skiy institut ogneuporov.

ANTONOV, G.I., [illegible] G.Z., MINKOVICH, B.D., PROKUDIN, V.Yu.

Stabilized dolomite brick in the checkerwork of an open hearth furnace. Ogneupory 30 no.9:21-25 '65. (MIRA 18:9)

1. Ukrainskiy nauchno-issledovatel'skiy institut ogneuporov.



[redacted], A.I., [redacted], G.I.

Stand for the study of heat exchange properties of refractory materials. Ogneupory 30 no.12:13-16 '65.

(MIRA 18:12)

1. Ukrainskiy nauchno-issledovatel'skiy institut ogneuporov.

ACC NR: AP6029974 SOURCE CODE: UR/0413/66/000/015/0166/0166

AUTHORS: Frenkel', A. S.; Antonov, G. I.; Berman, Sh. M.; Shapovalov, V. S.; Arkhipova, B. D.; Kovalina, F. S.

ORG: none

TITLE: A method for producing basic refractory products. Class 80, No. 181693 [announced by Ukrainian Scientific Research Institute of Refractories (Ukrainskiy nauchno-issledovatel'skiy institut ogneuporov)]

SOURCE: Izobret prom obraz tov zn, no. 15, 1966, 166

TOPIC TAGS: refractory product, refractory compound, powder metal, powder metallurgy, magnesite, magnesium compound

ABSTRACT: This Author Certificate presents a method for producing basic refractory products from pressed powder containing magnesite by forming this powder. To produce a consistently uniform volume of the products, molded materials such as magnesite, spinels, and forsterite are introduced into the pressing powder. Their amount is 20--70% of the pressed powder by weight. The products may be fired in an oxidizing medium at a temperature of 1750--1800°.

SUB CODE: 13/11/ SUBM DATE: 22Jun64

Card 1/1 UDC: 666.763.002.2

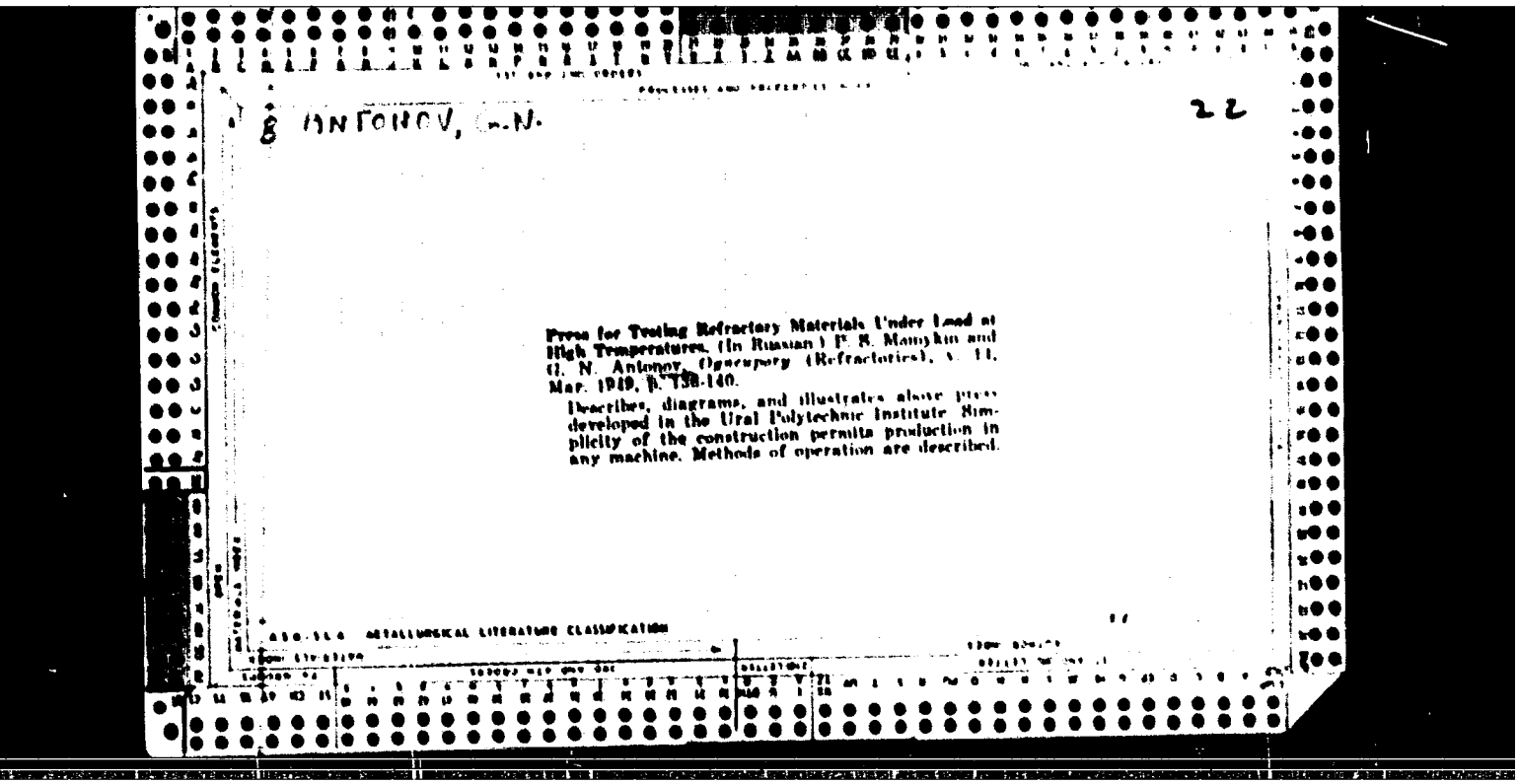
ANTONOV, G.K.; ALTUF'YEVA, A.M., redaktor; KONYASHINA, A., tekhnicheskiy redaktor.

[Fire truck with a carbonic acid extinguisher] Pozharnyi avtomobil' uglekislotnogo tusheniia. Moskva, Izd-vo Ministerstva kommunal'nogo khoziaistva RSFSR, 1955. 19 p. (MLRA 8:10)
(Carbon dioxide) (Fire extinction--Chemical systems)

MAMYKIN, P.S.; ANTONOV, G.N.; KASHCHEYEV, I.D.

New method of determining the slag resistance of refractory materials. Ogneupory 30 no.1:37-42 '65. (MIRA 18:3)

1. Ural'skiy politekhnicheskiy institut im. S.M.Kirova.



ANTONOV, G.N.

22

Press for Testing Refractory Materials Under Load at High Temperatures. (In Russian.) P. S. Mamykin and G. N. Antonov. Ogneupory (Refractories), v. 11, Mar. 1949, p. 138-140.

Describes, diagrams, and illustrates above press developed in the Ural Polytechnic Institute. Simplicity of the construction permits production in any machine. Methods of operation are described.

ASD-SLA METALLURGICAL LITERATURE CLASSIFICATION

L 1984-66 EWA(s)-2/EWT(l)/EWT(m)/EPF(n)-2/EWA(d)/T/EWP(t)/EWP(z)/EWP(b)/EWA(c)
IJP(c) JD/JG/GO
ACCESSION NR: AP5021093 UR/0056/65/049/002/0367/0372

AUTHOR: Tomashpol'skiy, Yu. Ya.; Venevtsev, Yu. N.; Antonov, G. N.

TITLE: Ferroelectric-magnetic materials in the system $PbFe_{2/3}W_{1/3}O_3$--Pb_2YbNbO_6

SOURCE: Zhurnal eksperimental'noy i teoreticheskoy fiziki, v. 49, no. 2, 1965, 376-372

TOPIC TAGS: ferroelectric material, antiferromagnetic material, lead containing alloy, iron containing alloy, tungsten containing alloy, niobium containing alloy, solid solution

ABSTRACT: New ferroelectric-magnetic materials with perovskite structure were prepared in polycrystalline form by firing the oxides WO_3, Fe_2O_3, Nb_2O_5, and Yb_2O_3 and the carbonate $PbCO_3$ at 700--1000C for 1--7 hours. The techniques used for the crystal-structure measurements at high temperatures and for the phase measurements were described by the authors earlier (FTT v. 6, 2998, 1964 and Zav. lab. no. 9, 1112, 1961). The dielectric measurements were made by a standard bridge method, and the magnetic measurements by the Faraday method. The tests showed that several solid solutions are formed in the $PbFe_{2/3}W_{1/3}O_3$--Pb_2YbNbO_6 system, some of which combine ferroelectric or antiferroelectric properties with ferrimagnetic ones over a relatively wide range of concentrations and temperatures. Some results were ob-

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L 1984-66

ACCESSION NR: AP5021093

tained, which indicated a coupling between the electric and magnetic dipole structures in the investigated compositions. The results may be of use in microwave technology. "The authors thank G. S. Zhdanov for discussing the results and B. A. Strukov for help." Orig. art. has: 6 figures.

ASSOCIATION: Fiziko-khimicheskiy institut im. L. Ya. Karpova (Physicochemical Institute) 44,55

SUBMITTED: 30Jan65 ENCL: 00 SUB CODE: SS, MM

NR REF SOV: 010 OTHER: 001

Card 2/2 DP

ACC NR: AP6032958 SOURCE CODE: UR/0363/66/002/010/1905/1905

AUTHOR: Fedulov, S. A.; Tatarov, Z. I.; Shklover, L. P.; Sergeyeva, N. I.; Antonov, G. N.; Gurevich, M. Z.

ORG: none

TITLE: Growing $NaLa(MoO_4)_2$ single crystals

SOURCE: AN SSSR. Izvestiya. Neorganicheskiye materialy, v. 2, no. 10. 1966, 1905

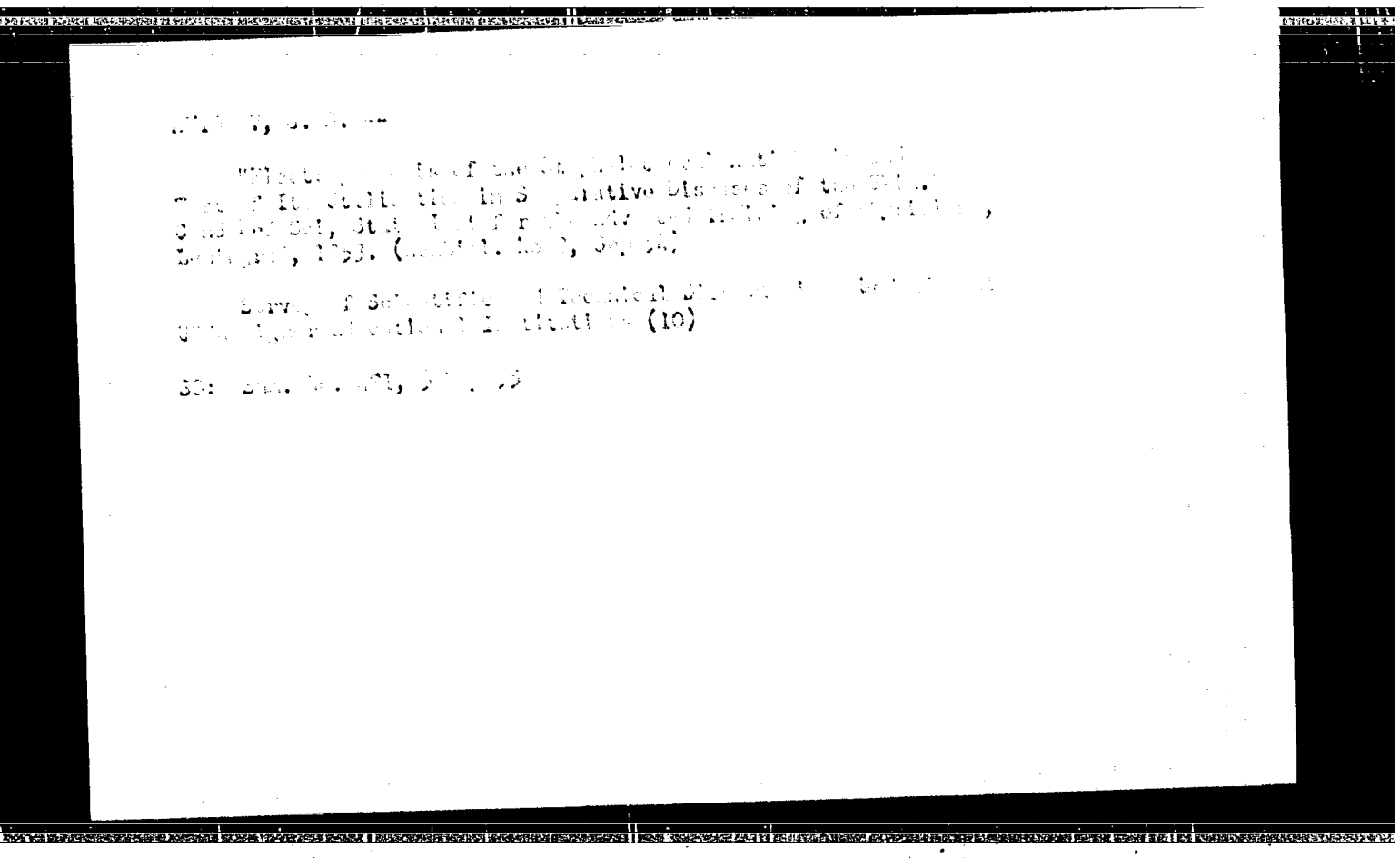
TOPIC TAGS: single crystal growth, molybdate, lanthanum compound, sodium compound, laser effect, laser optic material

ABSTRACT: $NaLa(MoO_4)_2$ single crystals were grown by Czochralski technique in a high-frequency crystallizer in view of the laser effect, previously reported in Western literature, in certain $M^IM^{III}(M^{VI}O_4)_2$ type compounds, where M^I is an alkali metal, M^{III} a rare-earth element and M^{VI} is W or Mo. The starting material $NaLa(MoO_4)_2 \cdot 2H_2O$ was synthesized by precipitation reaction of sodium molybdate and lanthanum nitrate in solution. Pure $NaLa(MoO_4)_2$ with MP = 1163C and scheelite structure was obtained by calcining the hydrated product at 900C. The crystals up to 60 mm long and up to 12 mm in diameter were grown from pure $NaLa(MoO_4)_2$ melt. The laser effect at a fairly low generation threshold was observed at room temperature in $NaLa(MoO_4)_2$ single crystals activated with 1 at% Nd. The generation threshold may be significantly decreased in the optically more perfect crystals. Orig. art. has: 1 figure. [JK]

SUB CODE: 20/ SUBM DATE: 04Nov65/ CRIG REF: 001/ OTH REF: 005/ ATD PRESS: 5096

UDC: 548.55

Card 1/1



ANTONOV, G.S.

Dynamics of phagocytosis in staphylodera during treatment by electrophoresis of staphylococcal antiphagin. Vop.kur.fizioter. i lech. fiz.kul't. 21 no.4:88-92 O-D '56. (MLRA 9:12)

1. Iz Leningradskogo nauchno-issledovatel'skogo instituta fizioterapii i kurortologii
(PHAGOCYTOSIS) (STAPHYLOCOCCUS) (ELECTROPHORESIS)

LYKO, Yu.M.; ANTONOV, G.S.

Short-term tempering of steel. Sbor. nauch. trud. Fiz.-tekh.inst. AN BSSR no.7:161-167 '61. (MIRA 15:7)
(Steel--Heat treatment)

ANTONOV, Gleb Vasil'yevich; OVCHAROV, Fedor Filaktovich; KOMAR, M.A., red.

[Repair of the magnetic circuits of transformers] Remont magnitoprovodov transformatorov. Moskva, Energiia, 1965. 215 p. (Transformatory, no.14) (MIRA 18:3)

STANCIU, B.; CONTIU, Ion, sef de brigada; MIRICA, Ion, maistru; ANTONOV, Haralambie, ing.

Pride in being a front-ranker. Constr Buc 16 no. 740:3 14 March 1964.

ANTONOV, I.

"Metallographic methods for determining the quality of alloys."

p. 38 (Ratsionalizatsiia, Vol. 7, no. 11, Oct. 1957, Sofiia, Bulgaria.)

Monthly Index of East European Accessions (EEAI) LC, Vol. 7, No. 6, June 1958.

ANTONOV, I.

For modern maintenance and repair facilities. Grazhd.av. 17 no.5:4-5 My '60. (MIRA 13:7)

1. Glavnyy inzhener Glavnogo upravleniya Grazhdanskogo vozdushnogo flota.

(Aeronautics)

ANTONOV, I.

Designers at work. Pozh.delo 7 no.5:4 My '61. (MIRA 14:5)
(Fire departments—Equipment and supplies)

ANTONOV, I.

Conference on toxoplasmosis. Zdrav.Bel. 7 no.8:70-71 Ag '61. (MIRA 15:2)

(TOXOPLASMOSIS--CONGRESSES)

ANTONOV, Ivan, inzh.; POPOV, Tono, inzh

Some results from the operation of mazut-fueled boilers in the "Sofiia" Thermoelectric Plant. Elektroenergiia 15 no.8:3-9 Mr '64

ANTONOV, Ivan, inzh.

Results from the mixed combustion in the TP-170-1 boilers of the "Sofiya" Thermoelectric Plant. Elektroenergiia 15 no.11:15-16 N '64.

MARUY.KIY, A.; ANTONOV, I.

Once more about slabs without reinforcement. Avt.dor. 27 no.11:21 N '64. (MIRA 18:4)

[redacted], I. P.

Regulation of tension by the power loading of distribution transformers. Moskva, Gos. energ. izd-vo, 1941. (Mic 51-506) Collation of the original: 45 p.

Microfilm AC-117

ANTONOV, I. A.

p. 2

AUTHOR: Yevseyev, A. A., Engineer SOV/ 105-58-7-21/32

TITLE: Conference on Developmental Problems of the Production of Transformers in the USSR (Soveshchaniye po voprosam razvitiya otechestvennogo transformatorostroyeniya)

PERIODICAL: Elektrichentvo, 1958, Nr 7, pp. 82 - 93 (USSR)

ABSTRACT: The conference took place from March 5th to March 6th, 1958, in Moscow. It was called by State Scientific Technical Committee Attached to the Council of Ministers of the USSR (Gosudarstvennyy nauchno-tekhnicheskiy komitet Soveta Ministrov SSSR) together with the Gosplan USSR (Gosplan SSSR). This conference was attended by: scientists and engineers from Moscow, Leningrad, Kiyev, Khar'kov, Sverdlovsk, Alma-Ata, and other cities, representatives of the Sovnarkhozes, the Technical Office Attached to the Ministry of Electric Power Plants, of the Building Authorities RSFSR, of the Gosstroy USSR, of the Committee of Standards, of the Electric Installation Organisations, and by the co-workers of the transformer works Moscow, Zaporozh'ye, "Uralelektroapparat", Armelektrozavod, as well as by the All Union Scientific Research-and Planning Institutes VEI, VTI, GIDEP, VNIIChermet, VNIIE,MEI and

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others. The representatives of organisations which have transformers in operation were invited as well. Professor I.A. Syromyatnikov (GNTK SSSR) opened the conference and pointed out the shortcomings and objectives in the production of transformers. The Deputy Chief Constructor A.M. Chertin, Moscow Transformer Works imeni Kuybyshev (Moskovskiy transformatornyy zavod im. Kuybysheva) reported on the working out of plans for the new series of the 110 kW transformers in the case of which the total losses are lower by 30%, and the idling losses by 40% - 50%, compared with the GOST 401-41. In 1959 these transformers will be put in operation to a large degree. Chief Engineer I.A.Antonov, Zaporozh'ye Transformer Works (Zaporozhskiy transformatornyy zavod) reported on the new series of transformers with a power of 560 - 5600 kVA at 10 and 35 kV, 7,5 - 31,5 MVA at 35 kV, 90 - 240 MVA at 110 kV, 90 - 240 MVA at 220 kV, 15 - 60 MVA at 150 kV and on the series of autotransformers 220/110/HH with 120 - 300 MVA for monophase units and 180 - 450 MVA for three-phase units. Chief Engineer A.N.Dolgov (Trust "Tsentroelektroset'stroy" MES) spoke about practical experience gained in assembling transformers and autotransformers with high power

ANTONOV, Ivan Andreyevich; SIDEL'NIKOVA, Z., red.; NEMYTOV, V., tekhn. red.

[Great movement] Bol'shoe techenie. Orel, Orlovskoe knizhnoe izd-vo, 1960. 15 p. (MIRA 14:12)
(Poultry)

SOV/112-59-5-9430

Translation from: Referativnyy zhurnal. Elektrotekhnika, 1959, Nr 5, p 139 (USSR)

AUTHOR: Antonov, I. A.

TITLE: I. A. Vyshnegradskiy's Detailed Diagrams for an Indirect Control System With a Rigid Feedback

PERIODICAL: Tr. Omskogo mashinostroit. in-ta, 1958, Nr 7, pp 25-35

ABSTRACT: A system of indirect control whose behavior can be described by an equation of the 4th order is studied. On the basis of Neumark's D-partition and Bulgakov's discrimination curve, a construction of Vyshnegradskiy's detailed diagrams is presented. An analysis of the diagrams results in the generalizations convenient for practical purposes and in selecting the optimum parameters from the stability criterion. Dimensionless parameters are used in the solution. In the above treatment, the direct-control system is a particular case of the indirect-control system when the servomotor time decreases indefinitely. Twenty illustrations. Bibliography: 15 items.

I. Ya. S.

Card 1/1

05492

AUTHOR: Antonov, I.A. SOV/141-2-2-17/22

TITLE: The Detailed Diagrams of I.A. Vyshnegradskiy and the Choice of Optimum Parameters in a Typical Indirect-control System

PERIODICAL: Izvestiya vysshikh uchebnykh zavedeniy, Radiofizika, 1959, Vol 2, Nr 2, pp 292 - 305 (USSR)

ABSTRACT: The influence of various design parameters on the functioning of a direct-control system was first established by I.A. Vyshnegradskiy for a third-order system. Detailed Vyshnegradskiy diagrams were given in a number of works (Refs 1-4). In the following, an attempt is made to apply the Vyshnegradskiy diagrams to a system of the fourth order. The basic equations of a system of indirect control for the case of switching off the load are:

$$T_a\varphi' = -\mu - 1(t) ;$$

$$T_r^2\eta'' + T_k\eta' + \delta\eta = \varphi ; \qquad (1) .$$

$$T_s\mu' + \mu = \eta$$

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The Detailed Diagrams of I.A. Vyshnegradskiy and the Choice of Optimum Parameters in a Typical Indirect-control System

By adopting $t = \delta T_a \tau$ and the notation of Eqs (2), the Laplace representation of the controlled quantity is given by Eq (3). The characteristic equation of the system is:

$$D(p) = srp^4 + (r + ks)p^3 + (k + s)p^2 + p + 1 = 0 \quad (4) .$$

This contains three design parameters. The parametric equations of the stability boundaries for $s = const$ are given by Eqs (5), where $p = \pm j\omega$. The family of the stability regions for the plane of the parameter k and r for various values of s (which represents the velocity of the servomotor) is illustrated in Figure 1. The construction of the Vyshnegradskiy diagrams requires the knowledge of the so-called discriminant curve, where Eq (4) contains a double real root, $p_{1,2} = -\gamma$. The discriminant is expressed by Eqs (6). The branches of the discriminant and the boundary curve for four basic cases are shown in Figures 2. Apart from the discriminant curves it is

The Detailed Diagrams of I.A. Vyshnegradskiy and the Choice of Optimum Parameters in a Typical Indirect-control System

necessary to know the curves where α = const; α represents the stability margin of the system. By substituting $p = \alpha \pm j\omega$ into Eq (4), the parametric equations for the curve of a constant margin of stability are given by Eqs (10). In these equations, $z = \alpha^2 + \omega^2$ and γ is regarded as a free parameter. A set of α-curves for fixed $s > 1/2$ is constructed in Figure 3. These represent the Vyshnegradskiy diagrams. A case when $s = 9/32$ $(1/4 < s < 1/2)$ is represented by the α-curves in the Vyshnegradskiy diagram in Figure 4. The Vyshnegradskiy diagram for $s = 3/16$ is given in Figure 5. The case of $s < 1/8$ is illustrated in the diagram of Figure 6. On the basis of the diagrams for the above four typical cases, it is possible to investigate the transients of the system for any values of the design parameters. The choice of optimum parameters for the system requires the knowledge of the root characteristics which represent the curves of α, ω and γ as a function

The Detailed Diagrams of I.A. Vyshnegradskiy and the Choice of Optimum Parameters in a Typical Indirect-control System

of the control parameter k at fixed values of two design parameters. On the basis of Eqs (4), the parametric formulae for $\alpha(k)$ are given by Eqs (19), while $\omega(k)$ is expressed by Eq (20). The curve $\gamma(k)$ can be evaluated from Eq (21). The above equations were employed to evaluate the characteristics for the four typical cases; the appropriate curves are shown in Figures 7, 8 and 9. On the basis of the root characteristics, it was possible to determine the transients for five fixed values of s. This was done under the assumption that the control process is completed when the deflection deviates by $\pm$ 5% from the steady-state value. Figure 10 shows a family of curves representing the transient time as a function of the control parameter k. A curve showing the optimum transient time for s = const. is given in Figure 11; the figure also shows a region where the transient time does not deviate by more than 20% from its optimum value. Figure 12 shows the dependence of the optimum transient

The Detailed Diagrams of I.A. Vyshnegradskiy and the Choice of Optimum Parameters in a Typical Indirect-control System

time on the design parameter, r , for a fixed a . By plotting a family of such curves, it is possible to establish the influence of the parameter s on the minimum value of the optimum transient time. An appropriate graph illustrating this is shown in Figure 13. From the graphs shown, it is concluded that:
1) the quality of the control process (as regards its speed) is improved by reducing the parameter r (Figure 12);
2) the minimum transient time decreases when s is reduced to about 0.25; further reduction of s has no significant effect.
There are 14 figures and 13 Soviet references.

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05492

SOV/141-2-2-17/22

The Detailed Diagrams of I.A. Vyshnegradskiy and the Choice of Optimum Parameters in a Typical Indirect-control System

ASSOCIATION: Omskiy mashinostroitel'nyy institut
(Omsk Machine-building Institute)

SUBMITTED: December 23, 1958

Card 6/6

ANTONOV, I. A., Cand Phys-Math Sci -- (diss) "Detailed diagrams of I. A. Vyshnegradskiy and selection of optimal parameters of typical systems of indirect control." Omsk, 1960. 17 pp; with graphs; (Moscow State Univ im M. V. Lomonosov, Mechanics-Mathematics Faculty); 150 copies; price not given; (KL, 19-60, 129)

ANTONOV, Ivan Aleksandrovich; BEREZINA, Mariya Nikitichna; SIROTYUK, A.K., retsenzent; KULIKOVA, T.I., retsenzent; SHUMAGINA, V.I., red.

[Technology of the manufacture of men's coats] Tekhnologiia izgotovleniia muzhskikh pal'to. Moskva, Legkaia industriia, 1965. 203 p. (MIRA 18:9)

ANTONOV, I. A.

FA 153T63

USSR/Engineering - Welding Soldering Nov 49

"New Apparatus for Welding Aluminum Conductors and for Soldering," I. A. Antonov, Engr, 2 1/2 pp

"Avtogen Delo" No 11

Shows diagrams and pictures of the apparatus (including fuel tank, oxygen tank, and torch with two interchangeable nozzles). Each nozzle has 19 jets with diameters of 0.8 mm in one nozzle and 0.65 mm in the other. In soldering, nozzle with larger jets is used with silver or brass solder.

153T63

USSR/Engineering - Welding (Contd) Nov 49

Gives amounts of benzene, kerosene, and oxygen consumed as fuel for different oxygen and fuel pressures.

153T63

ANTONOV, I. A.

USSR/Metallurgy - Welding, Torch Cables Mar 50

"Installation for Welding Aluminum Wires and Cables," I. A. Antonov, Engr, 4 pp

"Elek Stants" No 3

Describes installation in detail. Consists essentially of torch which burns kerosene or gasoline, combustion being assisted by oxygen blast. Special attachments are provided which can be clamped to wire and prevent molten metal running away. Series production of whole equipment is being done by Glavkislorod, Min of Chem Ind.

161T92

ANTONOV, I.A., inzhener.

Rapid automatic gas welding of thin-walled tubes. Vest.mash. 33 no.10:81-84 O '53. (MLRA 6:10)
(Oxyacetylene welding and cutting)

ANTONOV, I. A.

USSR/ Engineering - Machine construction

Card : 1/1

Authors : Antonov, I.A., Eng.; Kurlovich, Yu. V.; Eng.; & Shukhman, D. Ya, Eng.

Title : New gas-cutting machine with remote-controlled copying device

Periodical : Vest. Mash. 34/5, 78 - 80, May 1954

Abstract : This new gas-cutting machine, with remote-controlled duplicating device, is especially practical in heavy-machine construction and in ship building. Its design makes it possible to use smaller and cheaper patterns. The new machine was developed by the Institute of Autogenous Working of Metals. It cuts parts out of sheet steel 5-200 mm thick and has six cutters. The scale with relation to the pattern is 5:1.

Institution : ....

Submitted : ....

ASINOVSKAYA, O.A., inzhener.; LOTSMANOV, S.N., kandidat tekhnicheskikh nauk, dotsent, redaktor.; ANTONOV, I.A., inzhener, redaktor.; POPOVA, S.M., tekhnicheskiy redaktor.

[Flame brazing of metals.] Gazoplamennaia paika metallov. Moskva, Gos. nauchno-tekhn. izd-vo khim. lit-ry, 1955. 70 p. (Moscow. Vsesoiuznyi nauchno-issledovatel'skii institut avtogennoi obrabotki metallov. Rukovodiashchie materialy, no.7) (MLRA 9:11)
(Brazing)

ANTONOV, I.A., inzhener

New models of equipment and apparatus for gas-flame machining of metals. Svar. proizv. no.1:8-11 Ja '55. (MLRA 8:9)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut avtogennoy obrabotki metallov. (Oxyacetylene welding and cutting)

ANTONOV, I.A.

Technology of automatic gas cutting of thin-walled 1Kh18N9T steel pipe. Trudy VNIIAvtogen no.3:36-82 '55. (MIRA 11:12)
(Pipe, Steel--Welding) (Gas welding and cutting)

ANTONOV, I.A., kand.tekhn.nauk; ANTOSHIN, Ye.V., insh.; ASINOVSKAYA, O.A., insh.; VASIL'YEV, K.V., kand.tekhn.nauk; GUZOV, S.G., insh.; DEYKUN, V.K., insh.; ZAYTSEVA, V.P., insh.; KAZHEKOV, P.P., insh.; KARAN, Yu.B., insh.; KOLTUNOV, P.S., kand.tekhn.nauk; KOROVIN, A.I., insh.; KRZHECHKOVSKIY, A.K., insh.; KUZNETSOVA, Ye.I., insh.; MATVEYEV, N.N., tekhnik; MOROZOV, M.Ye., insh.; NEKRASOV, Yu.I., insh.; NECHAYEV, V.D., kand.tekhn.nauk; NINBURG, A.K., kand.tekhn.nauk; SPEKTOR, O.Sh., insh.; STRIZHEVSKIY, I.I., kand.khim.nauk; TESMENITSKIY, D.I., insh.; KHROMOVA, TS.S., insh.; TSEUNEL', A.K., Insh.; SHASHKOV, A.N., kand. tekhn.nauk, dots.; SHEELECHNIK, M.M., insh.; SHUKHMAN, D.Ya., insh.; EDEL'SON, A.M., insh.; VOLODIN, V.A., red.; UVAROVA, A.F., tekhn.red.

[Machines and apparatuses designed by the All-Union Institute of Autogenous Working of Metals] Mashiny i apparty konstruktsii VNIIAvtogen. Moskva, Gos.nauchno-tekhn.izd-vo mashinostroitel'noi lit-ry, 1957. 173 p. (Moscow. Vsesoiuznyi nauchno-issledovatel'skii institut avtogennoi obrabotki metallov, no.9)
(Gas welding and cutting--Equipment and supplies)

137-58-1-1002

Translation from Referativnyy zhurnal, Metallurgiya, 1958, Nr 1, p 141 (USSR)

AUTHOR: Antonov, I. A.

TITLE: Calculations for In-line Torches Without Injector (Raschet lineynykh bezinzhektornykh gorelok)

PERIODICAL: Tr. Vses. n.-i. in-ta avtogen. obrabotki metallov, 1957, Nr 4, pp 97-114

ABSTRACT: We are informed that in automatic gas welding of thin-walled pipe, boiler shells, and cylinders with straight seams it is desirable that multiple-nozzle in-line torches (IT) be employed as the source of heat. It is stated that the IT of modern design for welding thin-walled items consist of two or more identical sections with a total of 200-250 nozzles. The maximum acetylene consumption is 40-50 m^3/hr. When multiple-section IT are employed, welding speed increases. A design for a non-injector-type IT is examined, as are the calculation procedure for the dimensions of the working ducts and the spacing and number of nozzles for the IT. A nomogram expressing the relationship between the calculated parameters of the tips of the heating and welding sections of multiple-

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137-58-1-1002

Calculations for In-line Torches Without Injector

flame IT is proposed. A method and example of calculation for IT design is presented.

1. Gas welding--Automation 2. Gas welding--Equipment 3. Gas welding --Mathematical analysis A.Ts.

Card 2/2

BYKOV, V.V.; TROFIMOV, A.A.; ANTONOV, I.A., kand.tekhn.nauk, red.; MEZHOVA, V.A., red.izd-va; UVAROVA, A.F., tekhn.red.

[Repair of equipment for gas welding and cutting] Remont apparatury dlia gazovoi svarki i rezki. Moskva, Gos.nauchno-tekhn. izd-vo mashinostroit. lit-ry. Part 1. [Torches and cutters] Gorelki i rezaki. 1958. 198 p. (Moscow. Vsesoiuznyi nauchno-issledovatel'skii institut avtogennoi obrabotki metallov. Spravochnye materialy po gazoplamennoi obrabotke metallov, no.13) (MIRA 12:2)
(Gas welding and cutting--Equipment and supplies)
(Industrial equipment--Maintenance and repair)

135-58-8-19/20

AUTHOR: Strel'tsova, Ye. K., Head of the Technical Information Section

TITLE: The Sverdlovsk Regional Conference on Gas-Flame Metal Working and Electric-Gas Processes (Sverdlovskoye oblastnoye soveshchaniye po gazoplamennoy obrabotke metallov i elektrogazovym protsessam)

PERIODICAL: Svarochnoye proizvodstvo, 1958, Nr 8, pp 46 - 47 (USSR)

ABSTRACT: A regional Conference on work done in the field of gas-flame metal working and electric-gas processes was convened at Sverdlovsk from May 14 - 16 by VNIIAvtogen, together with the welding section of the Sverdlovsk NTO section of Mashprom, the Ural House of Engineering and the Technical Administration of the Sverdlovsk sovnarkhoz. About 200 representatives from Sverdlovsk enterprises and other Ural and Siberian sovnarkhozes were present. The Conference was opened by S. I. Likhaylov, Candidate of Technical Sciences, with an introductory report on problems relating to the improvement of gas-flame working of metals and new efficient processes connected with industrial reorganization. The Conference then heard the following reports: I.A. Antonov, Candidate of Technical Sciences, on the state of gas-flame working in the USSR and

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The Sverdlovsk Regional Conference on Gas-Flame Metal Working and Electric-Gas Processes

abroad; S. G. Guzov, Engineer, on new machines and equipment for oxygen cutting; I. V. Spashkov, engineer, on the application of gas-flame metal working at Uralmashzavod; I. S. Shapiro, engineer, on new methods of metal cutting; Yu. A. Maslov, engineer, on air-arc metal cutting; G. V. Chepushtanov, engineer, on work done in the field of gas-flame metal working at Uralkhimmashzavod; V. K. Deykun, engineer, on a "UGV" device for hardening small-module gears; G. V. Proskuryakov on manual and machine oxygen cutting; G. A. Asinovskaya, engineer, on automation of gas-flux welding; B. V. Konopka, engineer, on oxygen-flux and oxygen-sand cutting; Ye. V. Antoshin, engineer, on plastic, ceramic and metal coating; V. V. Bykov, chief

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technologist on new equipment produced by the first Moscow Autogenous Plant; V. Ye. Kuryshev on new generator and kerosene-cutter designs. The Conference decided to take measures to develop gas-flame metal working.

ASSOCIATION: VNIIAvtogen

1. Welding--Conference

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I. A. Antonov

PHASE I BOOK EXPLOITATION SOV/4243

Vsesoyuznyy nauchno-issledovatel'skiy institut avtogennoy obrabotki metallov

Plamennaya poverkhnostnaya zakalka (Flame Hardening) Moscow, Mashgiz, 1959. 110 p. (Series: Spravochnyye materialy po gazoplamennoy obrabotke metallov, vyp. 17) Errata slip inserted. 5,000 copies printed.

Compiler: A. I. Korovin, Engineer; Ed.: I. A. Antonov, Candidate of Technical Sciences; Tech. Ed.: A. F. Uvarova; Managing Ed. for Literature on Heavy Machine Building (Mashgiz): S. Ya. Golovin, Engineer.

PURPOSE: This book is intended for technical personnel in welding departments, technicians, foremen, and setup men. It may be useful to operators working in the flame-hardening process and also to designers of flame-hardening equipment.

COVERAGE: A brief description of Soviet apparatus used in the flame hardening of metals is given. Basic information

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on methods and regimes of the process is presented and means for inspecting the process are described. Safety rules are also included. This booklet is based on published literature, experience gained at various industrial plants and scientific research institutes, as well as on the work of VNIIAVTOGEN. No personalities are mentioned. There are 20 references, all Soviet.

TABLE OF CONTENTS:

18(5,7), 25(5) SOV/125-59-5-13/16

AUTHOR: None Given

TITLE: Scientific-Technical Conference on Questions of Welding Engineering

PERIODICAL: Avtomaticheskaya svarka, 1959, Vol 12, Nr 5 (74) pp 95-96 (USSR)

ABSTRACT: The scientific-technical conference on question of welding engineering convened in Khar'kov from March 11-13, 1959. The following organizations convened in the conference: The Scientific-Technical State Committee of the Council of Ministers of the UkrSSR, the Khar'kov Sovnarkhoz, the Institute of Electric Welding imeni Ye.O. Patona of the Academy of Sciences of the UkrSSR, the Kiyev and Khar'kov oblast administrative NTO of the machine industry. After the introduction of the Chairman of GNTK UkrSSR, G.V. Kostenko, the conference heard the report of Academician AS UkrSSR, B.Ye. Paton "On the Reintroduction and production of Welding Engineering". After that, the following reports were heard at the conference: Member of Gos Plan UkrSSR

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D.I. Polyakov on establishing materials and engineering bases in the republic for the development of welding. Vice Chairman of Sovnarkhoz V.N. Yakovlev on the introduction of welding engineering in the enterprises of the Dnepropetrovsk economic administrative area. Chief of Technical Administration of the Khar'kov Sovnarkhoz I.I. Kuzubov on the introduction of progressive welding engineering in the enterprises of the Sovnarkhoz. Comrade Ratnikov on successes of the [illegible] Metal Construction Factory in introducing welding engineering. Candidate of Technical Sciences I.I. Frumin (Institute of Electric Welding imeni Ye.O. Paton) on new works on automatic welding. Chief of Welding Department of the Novo-Kramatorskiy Machine Factory V.K. Yaryomenko on the use of "electric Slag" welding in heavy machine building. Candidate of Technical Sciences Yu. A. Yurchenko spoke on ceramic flux for welding. Chief of Welding Department of Khar'kov Turbine Factory, S.I. German on the use of radioelectric welding in carbon dioxide. Candi-

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date of Technical Sciences P.I. Sevbo on new equipment for welding, worked out by the Institute of Electric Welding imeni Ye.O. Paton. Candidate of Technical Sciences V.K. Lebedev (Institute of Electric Welding imeni Ye.O. Paton) on new works on point-welding. Engineer I.V. Zarchik on new welding equipment, worked out by VNIIESO. Vice Director of the Institute of VNII Avtogen, Candidate of Technical Sciences I.A. Antonov on recent achievements in the gas flame treatment of metals. Candidate of Technical Sciences V.F. Kazakov (Chair of Technology of Metals at Moscow Institute of the Meat and Milk Production) on a new method of vacuum diffusion welding.

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BYKOV, V.V.; ANTONOV, I.A., kand.tekhn.nauk, red.; UVAROVA, A.F., tekhn.red.

[Repair of equipment for gas welding and cutting] Moskva, Gos. nauchno-tekhn. izd-vo mashinostr. lit-ry. Pt.2 [Valves, ramps and regulators] Ventili, rampy i reduktory. 1960. 146 p. (Spravochnye materialy po gazoplamennoi obrabotki metallov, no.19) (MIRA 13:6)
(Gas welding and cutting--Equipment and supplies)