BELUGINA, Z.T.

Vitreous body as a means of prophylaxis and therapy in acute radiation sickness. Vop.radiobiol. 2:378-388 '57. (MIRA 12:6)

1. Sotrudnik TSentral'nogo nauchno-issledovatel'skogo rentgeno-radiologicheskogo instituta Ministerstva zdravookhraneniya SSSR.
(VITREOUS HUMOR) (RADIATION SICKNESS)

FUNSHTEYN, L.V.; BELUGINA, Z.T. (Leningrad)

Atypical manifestations of myeloid leukemia. Arkh.pat. 20 no.11:62-65 '58. (MIRA 12:8)

1. Iz TSentral'nogo nauchno-issledovatel'skogo rentgeno-radiologicheskogo instituta (dir. - prof.M.N.Pobedinskiy).
(LEUKEMIA) (MARROW--TUMORS)

MOZHAROVA, Ye.N.; BELUGINA, Z.T.; VASIL'YEVA, Ye.I.; KOZYRINA, Z.N.; KUCHEROVA, I.D.; OPRYSHKO, N.G.; SHESHINA, G.A.

Radiation therapy of nontumorous diseases and prospects for its evolution. Med. rad. 7 no.9:12-16 S '62. (MIRA 17:8)

1. Iz radioterapevticheskogo otdeleniya (zav. Ye.N. Mozharova) TSentral'nogo nauchno-issledovatel'skogo instituta meditsinskoy radiologii Ministerstva zdravookhraneniya SSSR.

MOZHAROVA, Ye.N.; BELUGINA, Z.T.

Comparative data on the therapeutic value of various methods of radiation therapy of polycythemia vera and the sequelae of this treatment. Probl. gemat. i perel. krovi no.10:27-32 '62. (MIRA 17:12)

1. Iz radioterapevticheskoy kliniki (zav. Ye.N. Mozharova) TSentral'nogo nauchno-issledovatel'skogo instituta meditsinskoy radiologii (direktor - Ye.I. Voroh'yev) Ministerstva zdravookhraneniya SSSR.

BELUGINA, Z.T.; KHACHKURUZOVA, E.S.

Dynamics of the hematopoietic activity of the gastric contents and the secretory activity of the stomach in radiophosphorus treatment of polycythemia vera. Med. rad. 8 no.7:34-38 Jl '63. (MIRA 17:1)

1. Iz radioterapevticheskogo otdeleniya (zav. - kand. med. nauk Ye.N. Mozharova) TSentral'nogo nauchno-issledovatel'skogo instituta meditsinskoy radiologii (dir. Ye.I. Vorob'yev) Ministerstva zdravookhraneniya SSSR.

LAPCHENKOV, V.I.; BELUGINA, Z.T.

Methodology for the determination of P^{32} in the marrow of the long tubular bones of polycythemia patients according to the irhibiting irradiation in the extremities. Med. rad. 8 no.11:13-20 N '63. (MIRA 17:12)

1. Iz laboratorii izotopnykh metodov issledovaniya (rukovoditel' - I.S. Osipov) i radioterapevticheskogo otdeleniya kliniki (zav. - Ye.N. Mozharova) TSentral'nogo nauchno-issledovatel'skogo instituta meditsinskoy radiologii (direktor Ye.I. Vorob'yev) Ministerstva zdravookhraneniya SSSR.

BELUK, S.; BONTEMPS, A.

Economic problems in designing factories. p. 77.
MATERIALY BUDOWLANE, Warszawa. Vol. 11, no. 3, Mar. 1956.

SOURCE: East European Acession List (EEAL) Library of Congress
Vol. 5, no. 8, August 1956.

BELUKHA, A.A.; SIDORENKO, I.S.

Corrosion of benzene distillation columns. Koks i khim. no.2:33-37 '61. (MIRA 14:2)

1. Krivorozhskiy metallurgicheskiy zavod.
(Plate towers—Corrosion) (Benzene)

IVANOV, Ye.B.; BELUKHA, A.A.; MUCHNIK, D.A.

Quality of coke as determined by its content in the 40-25 mm class. Koks i khim. no.3:29-31 '61. (MIRA 14:4)

1. Krivorozhskiy metallurgicheskiy zavod.
(Coke)

BRUK, A.S.; LEYBOVICH, R.Ye.; IVANOV, Ye.B.; SMUL'SON, A.S.; BELUKHA, A.A.; MUCHNIK, D.A.; FARTUSHNAYA, R.M.; Prinimali uchastiye: KUTEVOY, P.M.; GOL'DBERG, P.Ya.; NECHAYEVA, A.P.; KUBYSHKINA, L.I.; SHEYKHET, A.M.; VASIL'CHENKO, S.I.; BARASH, D.A.; KARPOVA, K.K.; KHODANKOV, A.T.

Effect of temperature changes in the control heating flues on the quality of the metallurgical coke. Koks i khim. no.7:26-27 '63. (MIRA 16:8)

1. Dnspropetrovskiy metallurgicheskiy institut (for Bruk, Leybovich, Kutevoy, Gol'dberg, Nechayeva, Kubyshkina, Sheykhet). 2. Krivorozhskiy metallurgicheskiy zavod (for Ivanov, Smul'son, Belukha, Muchnik, Fartushnaya, Vasil'chenko, Barash, Karpova, Khodankov).

(Coke ovens) (Coke--Testing)

IVANOV, Ye.B.; SMUL'SON, A.S.; BELUKHA, A.A.; MUCHNIK, D.A.; KAL'CHENKO, V.I.

Predicting the size of coke. Koks i khim. no.10:14-19 '62.
(MIRA 16:9)

1. Krivorozhskiy metallurgicheskiy zavod.
(Coke)

BELUKHA, A.A.; SIDORENKO, I.S.

Operation of enameled pipes in the coke and coal chemicals production. Koks i khim. no.2:52-54 '64. (MIRA 17:4)

1. Krivorozhskiy metallurgicheskiy zavod.

BELUKHA, Nikolay Timofeyevich; KOPACHINSKIY, I.V., ekon. retsenzent; NOVIK, A.M., red.izd-va; ROZUM, T.I., tekhn.red.

[Accounting in automotive transportation units] Uchet v avtotransportnykh khoziaistvakh. Kiev, Gostekhizdat USSR, 1963. 318 p. (MIRA 17:2)

BELUKHA, N.T.

Accounting is a means for economic control. Mashinostroenie no.5892-94 S-O '64 (MIRA 18:2)

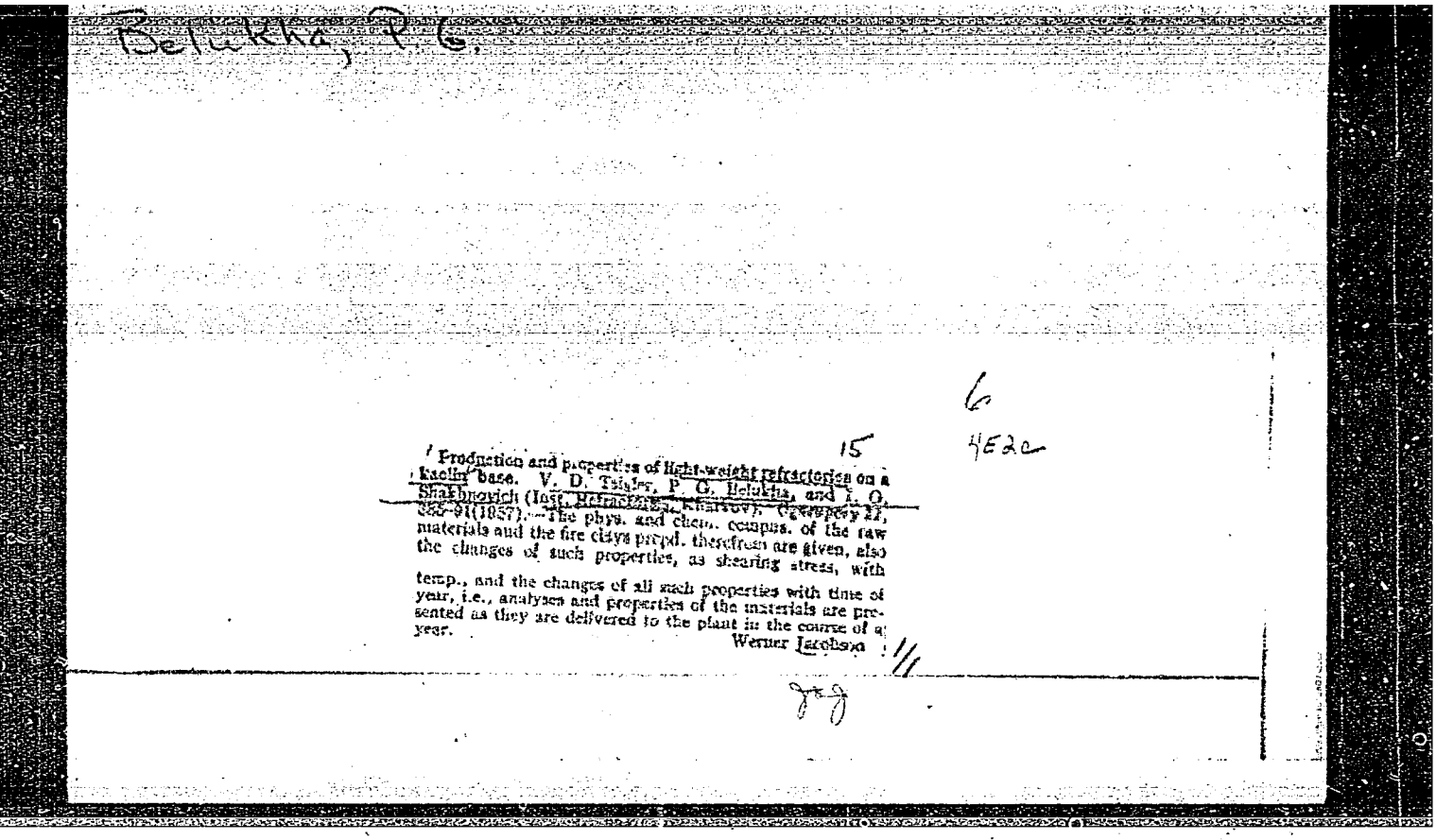
BELUKHA, N.T.

Efficient organization of accounting at metallurgical plants.
Met. i gornorud. prom. no.6:3-4 N-D '64.
(MIRA 18:3)

DYGALO, M.I.; BELUKHA, P.G.; SHAKHNOVICH, I.Q.

Semidry compression method for the manufacture of kaolin products and their properties. Ogneupory 22 no.5:199-202 '57. (MLRA 10:6)

1. Khar'kovskiy institut ogneuporov (for Dygalo). 2. Shamotnyy zavod im. Voroshilova (for Belukha and Shakhnovich)
(Kaolin) (Refractory industry)



Belukha, P. G.

15

6

4E2c

Production and properties of light-weight refractories on a kaolin base. V. D. Tsiglev, P. G. Belukha, and I. O. Shakhnovich (Inst. Refractories, Khar'kov). Ogneupory 22, 585-91(1957).—The phys. and chem. compns. of the raw materials and the fire clays prepd. therefrom are given, also the changes of such properties, as shearing stress, with temp., and the changes of all such properties with time of year, i.e., analyses and properties of the materials are presented as they are delivered to the plant in the course of a year.

Werner Jacobson

BELOKHA, P. G.

131-1-2/14

AUTHORS: Tsigler, V. D., Belukha, P. G., Shakhnovich, I. G.

TITLE: The Influence of Certain Technological Factors Upon the Properties of Light Refractory Kaolin Products (Vliyaniye nekotorykh tekhnologicheskikh faktorov na svoystva kaolinovykh legkovesnykh ogneuporov)

PERIODICAL: Ogneupory, 1958, Nr 1, pp. 5 - 11 (USSR)

ABSTRACT: 1.) The influence of a burnable addition upon the refractoriness and ceramic properties of light kadin products. Foundry coke and thermoanthracite in the piece were used as burnable admixtures. Laboratory tests and chemical analysis showed that by addition of a burnable addtion the content of Al_2O_3 is decreased and that of Fe_2O_3 is increased (see table). The refractoriness correspondingly also decreases. Table 1 gives the ceramic properties of the burned test samples.
2.) The influence of the pressure altitude, the lean degree and the moisture content of the masses. The layer consisted of kaolin of the place of finding Vladimir of the type ВЛ-1, fireproof clay of the same kaolin with water absorption up to 5,4 %, as well as anthracite with a 9,2 % content of ashes. The granulation of these materials is given in table 2. The volumetric weight of the mass under different conditions is given in figure 1. Figure 2 shows

Card 1/3

The Influence of Certain Technological Factors Upon the Properties of Light Refractory Kaolin Products

the dependence of the resistance of rupture of light kaolin products on pressure effect, lean degree and moisture content and figure 3 shows the same for the volumetric weight.

3.) The influence of the varieties of the lean admixture and its composition of grain upon the ceramic properties of light kaolin products. For this purpose a series of laboratory tests was performed with different layers. The compositions of layers and the ceramic properties of the products are given in table 4.

4.) The influence of the binding and mineralizing additions upon the refractoriness and the ceramic properties of the light kaolin products. The composition of layers and the properties of the light test samples are to be seen in table 5.

5.) The modification of the resistance to rupture and pressure of light kaolin raw material in the process of its heating is represented in figure 4. The tests are performed by A. A. Yeltysheva (reference 1).

Conclusions:

a) The refractoriness of the light kaolin products depends on the content of ashes of the burnable admixture used.

b) Their volumetric weight depends on the combustible addition.

Card 2/3 c) The resistance to pressure and rupture of these products de-

The Influence of Certain Technological Factors Upon the Properties of Light Refractory Kaolin Products

pends on the moisture content of the masses, the lean degree of the layer by fireproof clay, their composition of grain, the introduction of a sintering admixture, the amount of pressure applied, the final temperature of burning and the duration of burning at this temperature. There are 4 figures, 6 tables, and 6 references, 4 of which are Slavic, and 1 English.

ASSOCIATION: Institute for Refractory Products, Khar'kov (Khar'kovskiy institut ogneuporov)
Factory for Fireproof Clay imeni Voroshilov (Shamotnyy zavod im. Voroshilova)

AVAILABLE: Library of Congress
1. Refractory materials 2. Ceramics

BELUKHA, Nikolay Andreyevich; SINYAKOV, Yu.I., red.; LEVONEVSKAYA, L.G., tekhn. red.

[Fulfilling seven-year plan in five years] Semiletku - za piat' let. Leningrad, Lenizdat, 1959. 23 p. (MIRA 15:5)

1. Sekretar' Petrogradskogo rayonnogo komiteta Kommunisticheskoy partii Sovetskogo Soyuza (Belukha).
(Leningrad--Socialist competition)

S/131/60/000/04/01/015
B015/B008

AUTHOR: Belukha, P.G.

TITLE: Short Oil-heated Tunnel Kiln for Firing Kaolin Products

PERIODICAL: Ogneupory, 1960, No. 4, pp. 145-152

TEXT: In the paper under review, the author describes such a tunnel kiln put into operation at the Veliko-Anadol'skiy shamotnyy zavod (Veliko-Anadol'skiy Chamotte Works) in June, 1959, with an annual production of 40,000 t of kaolin refractories. This kiln construction was designed by the Ukrainskiy nauchno-issledovatel'skiy institut ogneuporov (UNIIO) (Ukrainian Scientific Research Institute of Refractories (UNIIO)), the design of a short kiln of the Vsesoyuznyy institut ogneuporov (VIO) (All-Union Institute of Refractories (VIO)) serving as a basis. The kiln is 60 m long and the drying plant 18 m. The scheme of the kiln is shown in Fig. 1. The fuel oil (mazut) is stored in 3 underground tanks of 50 t each, at a distance of 100 m each from the tunnel kiln. It is burned by means of 10 atomizers of the system Stal'proyekt (Fig. 2). The necessary compressed air is supplied by 2 blowers of the types VVD-8 and VVD-9. The secondary air is supplied by a blower of the type Sirokko N 6 1/2.

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Short Oil-heated Tunnel Kiln for Firing Kaolin Products

S/131/60/000/04/01/015
B015/B008

The kiln lining consists of Dinas bricks in the high-temperature zone and of firebricks in the low-temperature zone. Kaolin products of a weight of up to 10 kg a piece, pressed in the plastic and semidry state, are fired in this kiln. The charge compositions are listed in table 1. The charging of the kiln is shown in Fig. 3. The temperatures in individual kiln parts are listed in table 2 and the pressure in table 3. The tunnel kiln is operated by 3 laborers. Its daily output (24 hours) is 100 t. The burner ducts are shown in Fig. 4, and the points at which the kiln temperatures are measured by means of optical pyrometers in Figs 5 and 6. The kiln temperatures at certain points of the kiln are compiled in tables 4-6, and the course of temperature in the kiln during firing in Fig. 7. The author finally states that the short tunnel kilns may be operated with fuel oil when using burners of a suitable construction, which simplifies the automation of the kilns. The ease and simplicity of kiln control with a small labor supply will make it possible to improve the quality of the refractories, to lower the production costs, and to increase productivity. There are 8 figures and 7 tables.

ASSOCIATION: Veliko-Anadol'skiy shamotnyy zavod (Veliko-Anadol'skiy Chamotte Works)

Card 2/2

TSIGLER, V.D.; BELUKHA, P.G.

Experimental calcination of lightweight kaolin brick in short tunnel kilns. Ogneupory 25 no.12:545-549 '60. (MIRA 14:1)

1. Ukrainskiy nauchno-issledovatel'skiy institut ogneuporov (for Tsigler).
2. Veliko-Anadol'skiy shamotnyy zavod (for Belukha).
(Kaolin) (Firebrick)

BELUKHA, Pavel Grigor'yevich; SELENKOV, Fedor Stepanovich

[Tables for the calculation of mold sizes for the manufacture of refractory products] Tablitsy dlia vychisleniia razmerov form ogneupornykh izdelii. Moskva, Izd-vo Metallurgiia, 1964. 288 p. (MIRA 17:5)

BELUKHA, P.G.; SHAKHNOVICH, I.G.; PRIMACHENKO, V.V.

Firing of Vladimir kaolin in rotary kilns. Ogneupory 29 no.4: 148-151 '64. (MIRA 17:4)

1. Veliko-Anadol'skiy shamotnyy zavod.

SLAVNIN, A.I.; DMITRIYEVA, I.N.; DEGTYAREVA, N.A.; TAREYEVA, V.Ya.; BELUKHA, U.K.; USMANOV, I.U.

Resochin in the treatment of lupus erythematosus. Izv. AN Uz. SSR. Ser. med. no.2:45-49 '59. (MIRA 12:7)

1. Uzbekskiy nauchno-issledovatel'skiy kozhno-venerologicheskiy institut.
(LUPUS) (QUINOLINE)

BELUKHA, U.K.

Photodermatoses. Med. zhur. Uzb. no.5:38-40 My '61. (MIRA 14:6)

1. Iz Uzbekskogo nauchno-issledovatel'skogo kozhno-venerologicheskogo instituta (direktor - dotsent V.N.Matveyev).
(SKIN--DISEASES)

BELUKHA, U.K., mladshiy nauchnyy sotrudnik

Oxygen therapy in some skin diseases. Med. zhur. Uzb. no.9:31 S '61. (MIRA 15:2)

1. Iz Uzbekistanskogo nauchno-issledovatel'skogo kozhno-venerologicheskogo instituta (direktor - dotsent V.N.Matveyev).
(OXYGEN THERAPY) (SKIN--DISEASES)

DIMITRIYEVA, I.N., nauchnyy sotrudnik; BELUKHA, U.K., nauchnyy sotrudnik

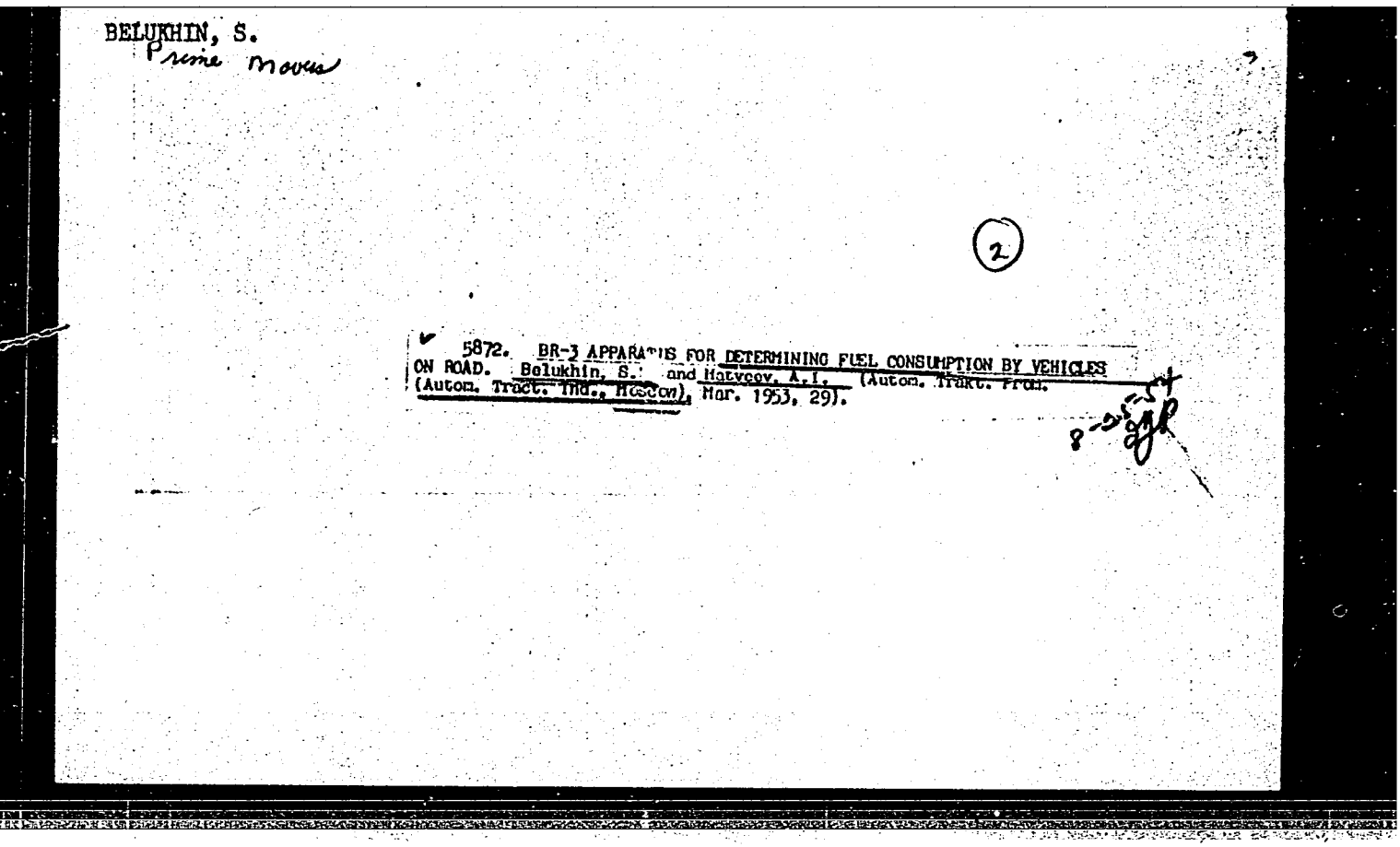
Comparative data on and late results of treating lupus erythematosus with resochin, aminoquinol and other substances. Vest.derm. i ven. no.1:23-30 '62. (MIRA 15:1)

1. Iz Uzbekskogo nauchno-issledovatel'skogo kozhno-rentgenologicheskogo instituta (dir. - dotsent V.N. Matveyev).
(LUPUS ERYTHEMATOSUS) (QUINOLINE)

BELUKHA, U.K.

Liver function and vitamin metabolism in the late cutaneous-bullous form of porphyria. Vest.derm. i ven. 38 no.5:20-27 My '64. (MIRA 18:12)

1. Uzbekskiy nauchno-issledovatel'skiy kozhno-venerologicheskiy institut (dir. - dotsent V.N.Matveyev). Submitted March 9, 1963.



BELUKHIN, S.
Prime Movers

(2)

5872. BR-3 APPARATUS FOR DETERMINING FUEL CONSUMPTION BY VEHICLES ON ROAD. Belukhin, S. and Matveev, A.I. (Avtom. Traktor. Prom. (Autom. Tract. Ind., Moscow), Mar. 1953, 29).

8-25-54 GGP

KAPLAN, G.Sh.; BELUKHIN, V.G.; NAYMARK, Yu.Yu.

Determination of the optimum geometry of a cutting tool securing chip breaking. Trudy Stud. nauch. ob-va LIEI no.3: 39-48 '59. (MIRA 16:10)

TSUBERBILLER, Ye.A.; BELUKHINA, G.V.

Abatement of dry winds under the influence of forest belts. Trudy TSIP no.41:48-55 '55. (MLRA 9:1)
(Windbreaks, shelterbelts, etc.) (Meteorology, Agricultural)

BELUKHINA, G.V.

Relation between values of meteorological elements in the psychrometric booth and the upper extremities of plants during days of hot winds. Trudy TSIP no.41:72-82 '55. (MLRA 9:1)
(Hygrometry) (Winds) (Meteorology, Agricultural)

BELUKHINA, G.V.

TSUBERBILLER, Ye.A.; BELUKHINA, G.V.

Method for an agrometeorological evaluation of droughts in irrigation agricultural regions. Trudy TSIP no.47:65-73 '56. (MLRA 10:2)

(Droughts)

USSR/Cultivated Plants - Grains. M-2

Abs Jour : Ref Zhur - Biol., No 7, 1958, 29684

Author : Belukhina, G.V.

Inst : Central Forecasting Institute.

Title : The Phytoclimate of Summer Wheat Under Irrigational Conditions in the European Territory of the USSR.

Orig Pub : Tr. Tsentr. in-ta prognozov, 1957, vyp. 53, 105-141.

Abstract : The results are given of research into the agrometeorological conditions on the irrigated fields of Sarativskaya, Krymskaya (Dzhankaya), Chkalovskaya (Buzuluk), Rostovskaya Oblasts and at the Khakasskaya Agrometeorological Station in Krasnoyarskiy Kray in 1952-1955. A single method was used in all field observations. A study was made of soil water conditions, plant development and harvesting besides. The heat balance of the irrigated field's active

Card 1/3

Abs Jour : Ref Zhur - Biol., No 7, 1958, 29684

respectively. The wind velocity at the level of the height of the plants was reduced by 2-3 times the value registered by the weather vane. The substantial decrease in the harmful action of dry winds under the influence of irrigation is demonstrated.
The bibliography lists 25 titles.

Card 3/3

BELUKHINA, G.V.

Phytoclimatic conditions for the cultivation of corn in Moscow Province. Trudy TSIP no.88:3-14 '59. (MIRA 12:8)
(Moscow Province--Corn (Maize)) (Crops and climate)

BELUKHINA, G.V.

Evaporation and temperature conditions of the air in corn fields. Trudy TSIP no.131:30-41 '63. (MIRA 16:9)

CHIRKOV, Yu.I.; BELUKHINA, G.V.

Calculating the moisture supply of corn fields in various climatic zones of the U.S.S.R. Trudy TSIP no.131:3-12 '63. (MIRA 16:9)

BELUKHICHEV.

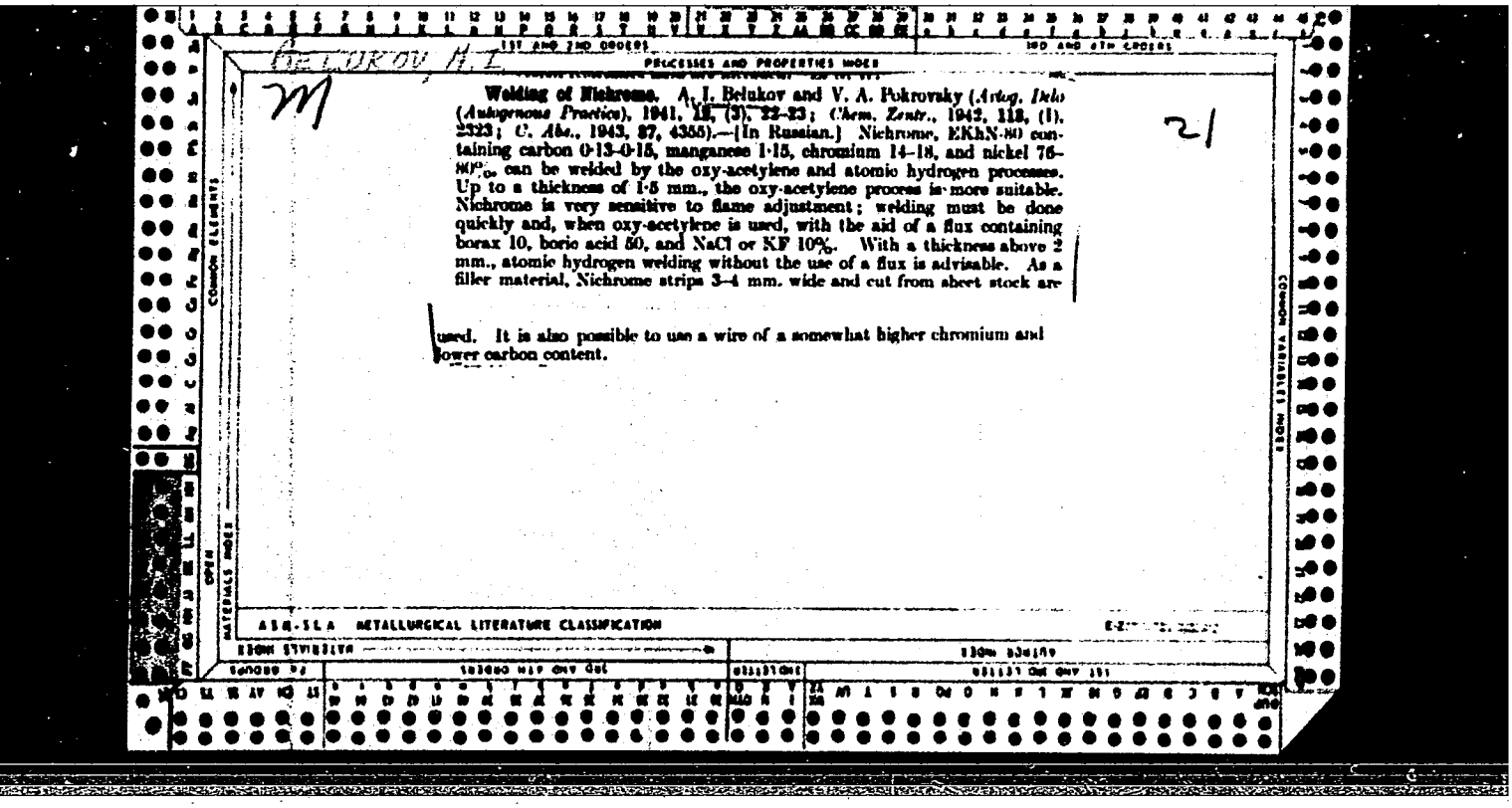
Filter on the fuel atomizer of the "Shkoda" engine. Mech. transp. 19 no.10:56 O '60. (MIRA 13:11)

1. Konstruktor Krasnoyarskogo sudoremontnogo zavoda.
(Filters and filtration)

BELUKHOV, L.

Achievements of air transportation in Bulgaira. Grazhd.av. 19 no.7:28 Jl '62. (MIRA 15:8)

1. Nachal'nik Upravleniya vozdushnogo transporta Bolgarskoy Narodnoy Respubliki.
(Bulgaria--Aeronautics, Commercial)



BELOKOV, A. I.

M

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PROCESSES AND PROPERTIES INDEX

Welding of Nichrome. A. I. Belukov and V. A. Pokrovsky (*Avtog. Delo* (*Autogenous Practice*), 1941, 12, (5), 22–23; *Chem. Zentr.*, 1942, 113, (1), 2323; *C. Abs.*, 1943, 37, 4355).—(In Russian.) Nichrome, EKhN-80 containing carbon 0·13–0·15, manganese 1·15, chromium 14–18, and nickel 76–80%, can be welded by the oxy-acetylene and atomic hydrogen processes. Up to a thickness of 1·5 mm., the oxy-acetylene process is more suitable. Nichrome is very sensitive to flame adjustment; welding must be done quickly and, when oxy-acetylene is used, with the aid of a flux containing borax 10, boric acid 50, and NaCl or KF 10%. With a thickness above 2 mm., atomic hydrogen welding without the use of a flux is advisable. As a filler material, Nichrome strips 3–4 mm. wide and cut from sheet stock are used. It is also possible to use a wire of a somewhat higher chromium and lower carbon content.

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION

BELUS, Stefan

Instruments made in the department for automation, measurement and control of the Slovnaft National Enterprise. Ropa a uhlie 5 no.4:126 Ap '63.

BELUSA, N.

Distr: 4E2c(j)

Kinetics of the crystallization process of low-pressure polyethylene.] J. Majer, J. Belusa, and I. Lanikova (Macromolecular Research Institute, Brno, Czechoslovakia). *Kunststoff-Rundschau* 7, 39–44(1960).—On analyzing the crystn. isothermal curve of low-pressure polyethylene according to the procedure of Avrami (*CA* 35, 3137[1]) and Morgan (*CA* 48, 13270b), the authors found that the crystn. is dependent on 2 competitive processes: formation of the nuclei and growth of the spherolites. The melting conditions were 8 min. at 180° and the crystn. temperature range 120–7.6°. The value of the velocity constant k_0 changes in the range order of 1×10^{-2} to 1×10^{-14}. At temps. below 120° the primary crystn. cannot be followed any more by the dilatometric method. The comparison of several theoretical relations has shown the equivalence of vol. and wt. portions of the cryst. phase; the Mandelkern equation, however, gives lower values for k_0. According to the Kantorowitz criterion, in low-pressure polyethylene an apparent induction period is probably involved and must not be excluded in computing the k_0 and n values. The activation energy computed from the temp. dependence of time parameter is of the same order, however higher than in high-pressure polyethylene. Only the right-side portion of the curve from the max. of total crystn. velocity was studied.

L. A. Helwich

5

1-9-J (NB)

BELUSA, M.

Complications of blood transfusions in childhood. Cesk. pediat. 16 no.7/8:728-731 Jl-Ag '61.

1. I detska klinika lekarske fakulty v Brne, prednosta prof. dr. Zdenek Brunecky.

(BLOOD TRANSFUSION complications)

2

CZECHOSLOVAKIA

SABACKY, J., MD; BELUSA, M., MD.

First Children's Clinic UJEvP (I. detska klinika UJEvP), Brno (for both)

Prague, Prakticky lekar, No 11, 1963, pp 414-417

"Clinical Experience with Kanamycin."

BELUSA, M.

Syndrome of hemolytic anemia, thrombopenia and nephropathy. Cesk. pediat. 19 no.2:181-185 F'64.

1. I. detska klinika lekarske fakulty UJEvP v Brne; prednosta: prof.dr.Zd.Brunecky.

BELUSA, Miroslav; FEIT, Josef

Hypochromic hypersideremic anemia with hemochromatosis. Cesk. pediat. 16 no.5:442-446 My '61.

1. I detska klinika lekarske fakulty v Brne, prednosta prof. MUDr. Z. Brunecky Patologickoanatomicky ustav lekarske fakulty v Brne, prednosta prof. MUDr. J. Svejda.

(HEMOCHROMATOSIS in inf & child)
(ANEMIA HYPOCHROMIC in inf & child)

CECH, Miroslav; BELUSA, Miroslav

Interrelations of fetal hemoglobin and the acetylphenylhydrazine test in infants. Cesk pediat 17 no.2:130-135 F '62.

1. I detska klinika v Brne, prednosta prof. dr. Z. Brunecky.

(HEMOGLOBIN chem) (FETUS blood)
(PHENYLHYDRAZINE pharmacol)

USSR / Human and Animal Morphology (Normal and Pathological. Nervous System. S-4

Abs Jour: Ref Zhur-Biol., No 17, 1958, 79072.

Author : Nikolau, Sh. G., Belush, Laurian.
Inst : Not given.
Title : On a Special Type of Terminal Nerve Bodies Found in the Thicker Skin Muscle in Rats.

Orig Pub: Zh. med. nauk. Akad. RNR, 1956, 1, No 2, 97-103.

Abstract: By the method of impregnation according to de Castro, encapsulated nerve endings - nerve corpuscles (NC) of an egglike-form are found in the muscle layer of the hyperdermis of rats. The long axis of the NC is often declined and forms an obtuse angle with the surface of the muscular layer. Large diameter of NC is 100-300 μ; small 50-100 μ. Usually, NC are completely immersed in the thickness of the muscle

Card 1/2

BELUSH, L.

RUMANIA/Pharmacology, Toxicology. Analeptics U03

Abs Jour : Ref Zhur - Biol., No 4, 1958, No 17564

Author : Blumenthal M., Fellner M., Belush L., Georghiu I.
Inst : Not Given
Title : The Treatment with Sodium Bromide and Caffeine of Some Dermatosis, Accompanied by Itching

Orig Pub : Probl.terap., 1957, 6, 67-76

Abstract : Thirty two patients, afflicted with dermatosis (type of eczema), accompanied by itching, received daily for 2-3 weeks subcutaneously caffeine in 0.02-0.03 g doses. As a result of the treatment there was a decrease in itching in the patients. The treatment had little effect on skin injuries. When 39 patients received only NaBr (1-2 intravenous injections of 10 ml of a 10% solution daily for 2-3 weeks) 50 patients were completely cured, in addition to a decrease in itching. 61 patients obtained the best effect when caffeine and NaBr were administered simultaneously. Only 14 patients were not cured.

Card : 1/1

L 10482-66 EWP(1)/EWT(m) IJP(c)

ACC NR: AP6003546 SOURCE CODE: RU/0011/65/009/001/0028/0031

AUTHOR: Teodorescu, I.--Teodoresku, I. (Engineer); Belusica, I.--Belushika, I. (Engineer); Macovei, M.--Makovey, M. (Engineer)

61
B

ORG: none

TITLE: Automatic tuning of the resonant system of a U-120 cyclotron 11

SOURCE: Automatica si electronica, v. 9, no. 1, 1965, 28-31

TOPIC TAGS: vibration, cyclotron, automatic control, automatic control system

ABSTRACT: The authors report on the testing of a system aimed at the stabilization of the automatic tuning for the resonant system of a U-120 cyclotron. The device was tested both on a model simulating the cyclotron and in the actual cyclotron, and was found to stabilize the frequency of local oscillations. Orig. art. has: 5 figures, 22 formulas. [JPRS]

SUB CODE: 13, 20 / SUBM DATE: none / ORIG REF: 002 / SOV REF: 001

HW

Card 1/1 UDC: 621.318.381: 538.551.21

BELUSOV, A.P.

Characteristics of the natural emulsifying film in cream. Izv.vys. ucheb.zav.pishch.tekh. no.4:57-63 '58. (MIRA 11:11)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut maslodel'noy i syrodel'noy promyshlennosti, Fiziko-khimicheskaya laboratoriya. (Cream)

BELUSOV, A.S., kand.med.nauk (Moskva)

Secretory and evacuatory function of the stomach in healthy subjects on a regular diet. Klin.med. 37 no.10:73-79 O '59. (MIRA 13:2)

1. Iz 2-y kafedry terapii (zaveduyushchiy - prof. B.Ye. Votchal) TSentral'nogo instituta usovershenstvovaniya vrachey.
(STOMACH physiol.)

BELUSOVA, Z. S.

Dissertation defended for the degree of Candidate of Sciences in the Institute of History (1962)

"Franco-Soviet Relations and the Problem of French Security (From the Franco-Soviet Pact on Mutual Assistance of 1935 in Munich)."

Vestnik Akad. Nauk, No. 4, 1963, pp 119-145

BELUSZKY, Pal, dr.

The activity area of Mateszalka. Foldrajzi ert 12 no.2:201-223 '63.

BELUSZKY, Pal

Geographical work of Istvan Nyiry. Borsod szemle 5 no.4: 411-420 '61.

BELUSZKY, Pal, dr.

In commemoration of Mihaly Katona (b.1764). Foldr kozl 12 no.4: 363-364 '64.

BELUSZKY, Pal, dr.

Commercial centers in Szabolcs-Szatmar County. Foldrajzi ert 13 no.2:179-204 '64.

BELUSZKY, Pal, dr.

"Power demand and its long-range planning" by Gyorgy Cukor, Marton Sagi. Reviewed by Pal Beluszky. Foldr kozl 12 no.4:359-360 '64.

"Guide to Hungarian and international literature on scientific work" by Janos Szentmihalyi, Miklos Vertesy. Reviewed by Pal Beluszky. Ibid.:360-361

BELUTSKIY, V. P.

BELUTSKIY, V. P. "On the diagnosis of blood flow from the ovaries", Sbornik nauch. trudov Khabar. voyen. gospitalya, III, Khabarovsk, 1948, p. 136-41.

SO: U-4393, 19 August 53, (Letopis 'Zhurnal 'nykh Statey', No.22, 1949).

BEDRINTSEV, K.N., kand.ekonom.nauk; KORZHENEVSKIY, N.L., doktor geograf. nauk; KOROVIN, Ye.P., doktor biolog.nauk; SHUVALOV, S.A., kand. geologo-mineral.nauk; YAKHONTOV, V.V., prof.; BELUZHEV, A.G.; GERKUZEN, S.Kh.; PAL'MIN,B.A.; KLEYNENBERG, G.Ye.; BARANOVSKIY, M.D.; DOROSHEV, N.T., mladshiy nauchnyy sotrudnik; SCHASTNEV, N.V.; TSAPENKO, N.G.; BABAKHODZHAYEV, A.Kh., red.; SUKHANOV, P.P., tekhn.red. (MIRA 13:7)

[Uzbekistan; economic-geographical features] Uzbekistan; ekonomiko-geograficheskaia kharakteristika. Tashkent, 1950. 302 p.

1. Akademiya nauk Uzbekskoy SSR, Tashkent. Institut ekonomiki. 2. Chlen-korrespondent AN Uzbekskoy SSR (for Korzhenevskiy). 3. Deystvitel'nyy chlen AN Uzbekskoy SSR (for Korovin). 4. Institut ekonomiki AN Uzbekskoy SSR (for Doroshev).

(Uzbekistan--Economic conditions)

L 23500-66 EWP(j)/EWT(m)/T RM/WW

ACC NR: AP6010204 (A) SOURCE CODE: UR/0201/66/000/001/0090/0094

AUTHOR: Bely, U. A.; Sawkin, V. G.

35
B

ORG: Division of the Mechanics of Polymers, AN BelSSR (Otdel mekhaniki polimerov AN BSSR)

TITLE: The effect of technological treatment parameters on the performance characteristics of polymers

SOURCE: AN BSSR. Vestsi. Seryya fizika-tekhnichnykh navuk, no. 1, 1966, 90-94

TOPIC TAGS: polymer, polycaprolactam, heat treatment, polymer structure

ABSTRACT: The authors investigated the effect of temperature and pressure on the supramolecular structure and some physical and mechanical properties of polycaprolactam. Changes in pressure from 200 to 1000 kg/cm^2 did not affect the supramolecular structure or the mechanical or physical properties of the polymer. Raising the temperature from 220 to 300 C favors the formation of larger supramolecular structures, while the spherulites become less uniform with more frequently encountered defects. This sharply decreases the strength

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ACC NR: AP6010204

of the polymer. At higher temperatures the differences in the strengths and deformabilities of polycaprolactams with different supramoleuclar structures are leveled. Orig. art. has: 4 figures. [VS]

SUB CODE: 11/ SUBM DATE: 30Nov65/ ORIG REF: 010/ OTH REF: 002

Card 2/2

ACC NR: AP6010496 (A) SOURCE CODE: UR/0201/65/000/003/0078/0081

AUTHOR: Bely, U.A.; Sawkin, V.H.

ORG: none

TITLE: Physicomechanical properties of polycaprolactam as affected by vacuum treatment of the melt

SOURCE: AN BSSR. Vestsi. Seryya fizika-tekhnichnykh navuk, no. 3, 1965, 78-81

TOPIC TAGS: polyamide, nylon, solid mechanical property, vacuum technology, polycaprolactam, capron

ABSTRACT: A series of designs for a vacuum-melting cylinder has been worked out at the Department of Polymer Mechanics, Academy of Sciences BSSR. The effect of vacuum on the physicomechanical properties of polycaprolactam products is studied. The installation used in the tests consists of the LPG-62 press, with a special attachment for producing vacuum in the melting cylinder. Technical data are given for the materials and equipment used. Emphasis is placed on the negative effect of moisture and high temperatures in the initial material on the physicomechanical properties of the finished product. On the other hand, vacuum treatment significantly increases (10-20%) the strength of the

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ACC NR: AP6010496

final products. Throughout the entire production process the temperature of the material should be kept as low as possible. Orig. art. has: 2 figures.

SUB CODE: 11, 14/ SUBM DATE: none

Card 2/2

L 04649-67 EWP(j)/EWT(m)/T RM/DJ

ACC NR: AP6024007 SOURCE CODE: UR/0201/66/000/002/0111/0118

48
B

AUTHOR: Bely, U. A.; KUPCHYNAW, B. I.

ORG: Division of Polymer Mechanics, AN BSSR (Otdel mekhaniki polimerov AN BSSR)

TITLE: Investigation of the influence of the temperature on the operating ability of metal-polymer sliding friction bearings

SOURCE: AN BSSR. Vestsi. Seryya fizika-tekhnichnykh navuk, no. 2, 1966, 111-118

TOPIC TAGS: antifriction bearing, bearing material, polyamide, friction coefficient, temperature dependence, MAST-1 friction machine, Belarus' tractor

ABSTRACT: The authors investigated the influence of the temperature on the friction coefficient of polyamides subjected to artificial heating. The tests were made on the MAST-1 friction machine. Mathematical reduction of the experimental data yielded an empirical plot of the friction coefficient of the polyamides against the temperature. The functional temperature dependence of the friction coefficient shows that even relatively slight increase of the temperature in the friction zone causes an appreciable increase in the friction coefficient. An analysis of the influence of the temperature in the friction zone on the friction coefficient of polyamides has led to a redesigned sliding friction bearing with a rotating polyamide bushing, having an increased load ability, improved heat transfer, and greater wear resistance (Fig. 1). The bearings are to be used in the "Belarus'" tractor and other agricultural machinery. Orig. art. has: 4 figures, 3 formulas, and 1 table.

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L 01649-67

ACC NR: AP6024007

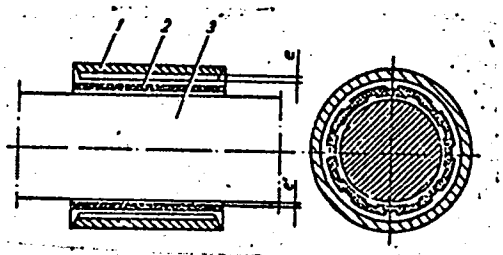

Fig. 1. Diagram of design of sliding friction bearing

SUB CODE: 13/ SUBM DATE: 02Feb66/ ORIG REF: 004

kh

Card 2/2

VAL'SKIY, Ye.G., inzh.; YUKHIMETS, A.A., inzh.; TARASENKO, V.O., inzh.; BELYABLIN, G.F., inzh.

Gas furnace for a secondary smelting cast iron. Mashinostroenie no.5:68-70 S-O '65. (MIRA 18:9)

ARGUTIN, Yu., inzh.; OGUSHEVICH, M., inzh.; BELYACHENKO, V., inzh.

Mechanization of labor-consuming operations in the maintenance of motor vehicles. Avt.transp. 42 no.1:17-21 Ja '64. (MIRA 17:2)

S/193/60/000/012/014/018
A004/A001

AUTHOR: Belyachkov, A. I.

TITLE: Oxide Chrome-Plating

PERIODICAL: Byulleten' tekhniko-ekonomicheskoy informatsii, 1960, No. 12, pp.57-58.

TEXT: The author reports on investigations and tests carried out by a team of engineers of a mechanical engineering plant in the field of oxide chrome-plating. The immediate deposition of oxide-chromium on steel not only resulted in positive results as to corrosion resistance, but cut down the costs and increased the productivity of the process. Compared to a cadmium layer of 20-30μ, the components are now coated with oxide-chromium of 5-7μ thickness, while the duration of the process was halved. The hardness of the oxide-chromium plating amounts to 60 - 64 R_c on a steel basis and 57 R_c on aluminum alloys. Oxide-chromium can be successfully deposited on flat components, while internal adjacent surfaces and deep cavities cannot be coated. For the coating of complex-profiled parts it is necessary to introduce additional anodes. For complex parts where additional anodes can only be used with difficulty, combined coatings are recommended, which consist of a cadmium layer 10-15μ thick and a 5 - 7μ oxide-chromium coat. To

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Oxide Chrome-Plating

increase the corrosion resistance of the oxide-chromium layer it is necessary to apply a fine layer of gun oil or commercial vaseline. The electrolyte for oxide-chromium plating is composed of 250 - 300 g/liter chromic anhydride and 1 - 3 g/liter potassium ferrocyanide. Plating is effected at 15 - 25°C at a current density of 20 - 80 amp/dm^2. The oxide-chromium deposits are of dark-gray or black color and possess a low porosity. The bath tubs for oxide-chromium plating are made of sheet steel and lined with vinylplastics. An electrolyte temperature exceeding 25°C has a negatve effect on the plating process, the oxide-chromium deposit changes in color, the density of the deposit decreases and the thickness of the plating is reduced. The optimum plating temperature is 15 - 20°C, and to maintain this temperature the electrolyte should be cooled during the plating process by a water jacket or a coil pipe.

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88666

S/193/61/000/001/002/008
A005/A001

18.7400A

AUTHOR: Belyachkov, A.I.

TITLE: Hard Anodizing of Aluminum and Its Alloys

PERIODICAL: Byul. Tekhn.-ekon. inform., 1961, No. 1, pp. 20 - 21

TEXT: The hard anodizing was introduced into mechanical engineering for producing friction-resistant components of anodized aluminum or its alloys instead of steel or, especially, stainless steel, which decreased the weight of components by about 50%. Moreover, the manufacture of components such as valves, cores, clutches, cylinders, shafts etc. made of aluminum alloys decreased the production time and made it possible to replace bronze, brass, and copper. The hard anodizing is conducted in a sulfuric acid electrolyte cooled down to a temperature below 0°C; a dense oxide coating of aluminum oxide forms on the component surface, having 90 micron in thickness and hardness of 300-380 kg/mm^2. The heat arising in the metal - electrolyte interface is withdrawn by mixing the electrolyte with cold air of +2 - -10°C supplied into the zone of the components to be anodized; the cooling of the hard anodizing bath is performed by conditioning compressors. The alloys В-95 (V-95), АК-6 (AK-6), АМГ (AMG), АК-4-1 (AK-4-1), АЛ-9 (AL-9),

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S/193/61/000/001/002/008
A005/A001

Hard Anodizing of Aluminum and Its Alloys

САП(SAP), and Д-16 (D-16) (plated), are subjected to hard anodizing; the latter alloy in non-plated state poorly undergoes the anodizing. The choice of the anodizing conditions for each lot of components and the maximum elimination of heat from the metal - oxide coating interface are required, dependent on the content percentage of admixtures, especially copper; burn may occur instantly, if a slight overheating arises at any point. The thickness of the anodic coating, depends on the anodizing duration as well as on the nature of the alloy subjected to hard anodizing; the best anodic coating of the greatest thickness was obtained with the alloy V-95 being the most suited alloy for friction resistant components. The outfit and reliable contacts are of importance in hard anodizing; a poor contact leads to local overheating and burn at the contact point. The hard anodizing tank is manufactured of steel sheet lined at its inner side by acid-resisting substances such as vinyl plastics, diabase. A refrigerant compressor system cooles the electrolyte by a lead coil pipe mounted immediately within the tank. The hard anodizing process is power-supplied from a 110 v generator. The preparations of the components to both hard and ordinary anodizing in sulfuric acid are similar. After being hard anodized, the components are washed in cold water and dried. The sulfuric acid concentration for hard anodizing is 200-300 g/l; the cathodes are of lead. Different conditions are needed for different

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S/193/61/000/001/002/008
A005/A001

Hard Anodizing of Aluminum and Its Alloys

alloys; the tanks must be charged with components of the same alloy. The temperature of the stirring air must never be higher than that of the electrolyte. Hard anodizing protects successfully the metals from corrosion.

Card 3/3

14(5) SOV/92-58-8-22/36

AUTHOR: Belyachkov, A.P., Engineer

TITLE: Treatment of Spindle Oil in a Combined Mixer (Ochistka veretennogo masla v kombinirovannoy meshalke)

PERIODICAL: Neftyanik, 1958, Nr 8, pp 25-26 (USSR)

ABSTRACT: The author states that in 1957 a group of engineers and technicians of the Groznyy refinery introduced the treatment of the 3V spindle oil in one combined mixer of a sulfuric acid treating plant. Before their proposal was put into effect, the treatment of spindle oil was performed in two units in accordance with the flow chart shown in Fig. 1. In 1957 the sulfuric acid treating plant conducted tests using only one mixer. For this purpose the mixer was equipped with an additional steam distributor. The author describes how the process is carried out and shows it in a flow chart of Fig. 2. The process carried out in one combined mixer takes 18 hours and permits the refinery to realize a saving of about 300,000 rubles per year.

ASSOCIATION: Groznenskiy neftepererabatyvayushchiy zavod (The Groznyy Refinery)

Card 1/1

SAFONOV, N.A., inzhener; BELYACHKOV, S.M.

Attachment for the stump-pulling crane to overcome frozen ground on hydropeat fields. Torf.prom.33 no.6:36 '56. (MLRA 9:10)

1.Torfopredpriyatiye Chistoye.
(Cranes, derricks, etc.) (Frozen ground)

BELYAEV, A.D., MALOGOLOVETS, V.G.

Effective cross section of electron capture by negative iron ions in germanium. Fiz. tver. tela 5 no.10:3043-3046 O '63. (MIRA 16:11)

1. Institut poluprovodnikov, AN UkrSSR, Kiyev.

ZELIKMAN, Abram Naumovich; KRYN, Ol'ga Yefimovna; SAMSONOV, Grigoriy Valentinovich; BELYAEVSKAYA, L.V., red.

[Metallurgy of rare metals] Metallurgiia redkikh metallov. Izd.2., perer. i dop. Moskva, Izd-vo "Metallurgiia," 1964. 568 p. (MIRA 18:1)

L 60212-65 EWT(m)/EWP(v)/EWP(t)/EWP(h)/EWP(l) Pf-4

ACCESSION NR: AP5019094 UR/0286/65/000/012/0112/0112

AUTHORS: Abramov, A. K.; Belyagin, V. S. 44

36
B

TITLE: An automatic brake of a normally locked type. Class 47, No. 172163

SOURCE: Byulleten' izobreteniy i tovarnykh znakov, no. 12, 1965, 112

TOPIC TAGS: mechanical engineering, arresting gear, automatic control

ABSTRACT: This Author Certificate presents an automatic brake of a normally locked type. The brake contains two semiclutches, one of which also constitutes the brake drum. To increase the ease of regulating the braking moment, to increase the braking force, and to simplify the construction, the semiclutch with the brake drum contains a protrusion at its center, while its disk carries rigidly fixed pins which enter the recesses formed in the second semiclutch.

ASSOCIATION: Spetsial'noye konstruktorskoye byuro elektromashinostroyeniya (Special Construction Bureau of Electrical Machine Construction) 44

SUBMITTED: 16Dec63 ENCL: 00 SUB CODE: IE

NO REF SOV: 000 OTHER: 000

Card 1/1

DELYAK, A.A.

Microcrystalloscopic reactions on nitrates and nitrites
Zhur anal. khim., 7, no. 1, 1952

Belyak, A. Ya

BELYAK, A.Ya.; VEKSLER, V.I.; KANUNNIKOV, V.N.; CHERENKOV, P.A.; YABLOKOV, B.N.

Special features of the 280 Mev synchrotron operated by the Institute of Physics, U.S.S.R. Academy of Sciences. Atom.energ.supplement no.4:57-72 '57. (MIRA 10:10)

(Synchrotron)

L 4235-66 EWT(m)/EPA(w)-2/EWA(m)-2 IJP(c) GS

ACCESSION NR: AT5007977 S/0000/64/000/000/1056/1060

AUTHOR: Belovintsev, K. A.; Belyak, A. Ya.; Vorontsov, S. B.; Cherenkov, P. A.

TITLE: Strong-current microtron-injector

SOURCE: International Conference on High Energy Accelerators. Dubna, 1963. Trudy. Moscow, Atomizdat, 1964, 1056-1060

TOPIC TAGS: low energy accelerator, magnetron, electron beam

ABSTRACT: By analyzing the characteristics of various low-energy accelerators (Van-de-Graaf generator, cascade generator, pulse transformer, microtron, linear accelerator, etc.) from the viewpoint of their utilization as an injector for the synchrotron, the authors found the application of the microtron for this purpose very promising. The determining motives of their selection were the simplicity of design and construction, high monoenergetic character, good geometric beam parameters, ease of output of a large part of the accelerated electrons, and compactness of this accelerator. In order to experimentally verify the theoretical assumptions, and also to study new possibilities, mainly concerned with the enhancement of the intensity, a 7-Mev microtron was erected and put into operation (October 1961) in the Photomeson Processes Laboratory, Physics Institute im. P. N.

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L 4235-66

ACCESSION NR: AT5007977 D

Lebedev, Academy of Sciences SSSR. The present report discusses the principal characteristics of the microtron. This accelerator was described in detail in another work (Belovintsev, K. A., Belyak, A. Ya., Gromov, A. M., Moroz, Ye. M., Cherenkov, P. A. *Atomnaya energiya* 14, 359 (1963)). The magnet of the microtron (total weight of the iron and windings--2 tons) ensures the creation of homogeneous (not worse than 0.3%) field in the circular region 50 cm in diameter for a gap of 12 cm between the pole terminals 60 cm in diameter. The maximum value of the homogeneous field in the gap is 4000 oersteds. The magnet's power supply is stabilized with an accuracy of 0.05%, and the power consumed in the operational state (around 1000 oersteds) amounts to 450 watts. The magnet poles are the covering of the vacuum chamber, realized in the form of a brass ring with nine soldered outlet pipes. The vacuum exhaust system consists of a mechanical fore-vacuum and para-oil pumps. A vacuum of 10^{-6} mm of mercury in the chamber's working volume is reached in 1.3 hours after it is attached. The microtron high-frequency system includes the following elements: (a) magnetron generator of 10 cm range operating in the pulse state at a frequency of repetition 50 or 100 hertz and pulse duration of 3 microseconds; (b) waveguide track with cross-section 72 × 44 mm operating in the fundamental wave mode H_{01}; (c) plane cylindrical resonator in which oscillations of

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L 4235-66
ACCESSION NR: AT5007977 4

the type E_{010} are excited (Kapitsa, S. P.; Bykov, V. P.; Melekhin, V. N. *ZhETF* 41, 368 1961)). Works on the study and improvement of the characteristics of the microtron as a strong-current injector are continuing. Especially interesting is the study of the possibility of the microtron as an injector of positrons for various storage devices (Belovintsev, K. A.; Denisov, F. P. *Atomnaya energiya* (in print)). "In conclusion the authors thank their associates at the Photomeson Laboratory, A. M. Gromov, A. V. Borisov, and V. S. Malofeyev, for their participation in the individual experiments and developments." Orig. art. has: 5 figures.

ASSOCIATION: Fizicheskiy institut imeni P. N. Lebedeva AN SSSR (Physics Institute, AN SSSR)

SUBMITTED: 26May64 ENCL: 00 SUB CODE: NP,

NO REF SOV: 004 OTHER: 000

beh
Card 3/3

S/089/63/014/004/003/019
A066/A126

AUTHORS: Belovintsev, K.A., Belyak, A.Ya., Gromov, A.M., Moroz, Ye.M., Cherenkov, P.A.

TITLE: A 6.5 Mev microtron for electron injection into a synchrotron

PERIODICAL: Atomnaya energiya, v. 14, no. 4, 1963, 359 - 363

TEXT: It is first pointed out that the relatively high intensity of the electron beam attained in conventional microtrons, the simple design of the device, the escape of a relatively large amount of electrons from the accelerator, the great similarity of the electron energies, the small divergence angle of the electrons, and other facts indicate that the microtron may also serve as a synchrotron injector. These assumptions were checked by the authors on the 280 Mev synchrotron of the Fizicheskiy institut im. P.N. Lebedeva AN SSSR (Institute of Physics imeni P.N. Lebedev, AS USSR) with the aid of their 6.5 Mev microtron. The number of electrons retained during acceleration when a magnetron is used as a synchrotron injector is estimated at about $2.5 \cdot 10^{10}$. It is thus proved that modern accelerators of this type are very efficient already now, and further de-

A 6.5 Mev microtron for electron injection ....

velopment will make magnetrons even more suitable for this purpose. The magnetic poles and the sheets are made of Ст.3 (St.3) steel. The magnetic poles are 600 mm in diameter, and the diameter of the operating area is 500 mm approximately. The magnet requires 450 w, and the supply of energy is stabilized with an error of about 0.03%. The pressure in the chamber is about $2 \cdot 10^{-6}$ mm Hg. There are 3 figures.

SUBMITTED: June 27, 1962

Card 2/2

APPROVED FOR RELEASE: 06/06/2000 CIA-RDP86-00513R000204520015-2"

L 11297-63 EWT(m)/BDS/ES(w)-2--AFFTC/ASD/ESD-3/SSD--Pab-4--DM

ACCESSION NR: AP3003978 S/0089/63/015/001/0062/0062

AUTHOR: Belovintsev, K. A.; Belyak, A. Ya.; Gridasov, V. I.; Cherenkov, P. A.

TITLE: On new possibilities of increasing the efficiency of a microtron

SOURCE: Atomnaya energiya, v. 15, no. 1, 1963, 62

TOPIC TAGS: microtron, ferrite isolator, magnetron, automatic bias

ABSTRACT: A ferrite isolator, serving as a matching and decoupling element between a magnetron oscillator and an accelerating resonator was substituted for the conventional water-load system and the phase shifter in a microtron. As a result of this improvement, the power loss in the microtron waveguide was reduced, microtron efficiency was increased by a factor of approximately two and the stability of the h-f channel was increased markedly due to decoupling between the magnetron oscillator and the load. Through reduction of waveguide length and the number of joints in the waveguide it was possible to make the system hermetic, thus increasing considerably its electric strength. Since the ferrite isolator functions simultaneously as a matching element, attenuator, and phase shifter, the adjustment procedure and control of the microtron were considerably simplified.

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L 11297-63
ACCESSION NR: AP3003978

A further increase in efficiency can be obtained by increasing coefficient k, which is the ratio of the number of electrons in the beam to the number of injected electrons. The k can be increased by applying a positive bias to the microtron injected cathode. Smooth adjustment of the bias is effected by changing the internal resistance of the high-voltage triode located between the microtron cathode and the ground. It was shown in experiments, that k is a linear function of the positive bias in the first approximation. The value of the linearity coefficient depends on the dimensions of the resonator injector aperture and on the location of the cathode. Thus, it was possible to increase k by 10% at a positive bias of approximately 2—3 kv, and to increase the pulsed current of accelerated electrons in the microtron up to approximately 110 mamp at an energy of 6.5 Mev. Orig. art. has: 1 formula.

ASSOCIATION: Fizicheskiy institut im. P. N. Lebedeva, AN SSSR (Physics Institute, AN SSSR)

SUBMITTED: 25Oct62 DATE ACQ: 08Aug63 ENCL: 00

SUB CODE: SD NO REF SOV: 002 OTHER: 000

Card 2/2

L 46158-65 ENT(m)/EPA(w)-2/EWA(m)-2 Pt-7/Pab-10 IJP(c) OS

ACCESSION NR: AT5007923 S/0000/64/000/000/0355/0357

AUTHOR: Ado, Yu. M.; Belovintsev, K. A.; Belyak, A. Ya.; Bessonov, Ye. G.; Dem'yanovskiy, O. B.; Skorik, V. A.; Cherenkov, P. A.; Shirchenko, V. S.

50
49
B+1

TITLE: Storage of particles in a synchrotron 19

SOURCE: International Conference on High Energy Accelerators. Dubna, 1963. Trudy. Moscow, Atomizdat, 1964, 355-357

TOPIC TAGS: high energy accelerator, charged particle beam, particle physics, synchrotron

ABSTRACT: Synchrotron-type accelerators of several 100 Mev and higher can be employed for particle storage [Yu. M. Ado, "Atomnaya Energiya, 12, 54 (1962)]. In the case of simultaneous storage of electrons and positrons in an accelerator, one can obtain colliding electron-positron beams. In order for a synchrotron to operate in the storage state, the constant component of the driving magnetic field must be larger than the amplitude of the variable component. In particular, if the variable component is a sinusoidal function of time, the driving magnetic field B must have a specified shape. In this case, the accelerating hf potential is step-shaped,

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ACCESSION NR: AT5007923

i.e. remains switched on continuously in contrast to the synchrotron's operation in the usual state. The injection of particles is effected at moments of time t_1, t_2, t_3,..., which correspond to intersections of the ascending curve H-versus-t with the constant ordinate H_1. The particles captured in the synchrotron state of the storage device, which are accelerated during the rising portion of the magnetic field H and slowed down when the magnetic field is decreasing, remain in the accelerator chamber for a period that is determined mainly by the scattering processes and by the bremsstrahlung on the atoms of the residual gas. During each period of the driving magnetic field H close to maximum H there exists considerable radiation damping of the amplitudes of betatron and synchrotron oscillations. As a result, the phase volume occupied by the particles decreases. This permits the onset of amplitude modulation of the specified hf-potential without loss of the particles captured earlier. In this case, the injection of particles will proceed into the phase space between the separatrices which are defined by the amplitudes of hf-potential U (maximum step value) and $U - \Delta U$ (modulation decrement due to H being less than H_1 for the brief periods just before t_1, t_2, t_3,...). The admissible depth of modulation ΔH is larger the larger the magnitude of radiation damping of the oscillations. The effectiveness of the injection into the synchrotron state of storage during onset of amplitude modulation of the hf-potential is ten times the effectiveness of injection directly into the steady-state separatrix. In the case

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of particle storage in a synchrotron, injection is effected into the variable magnetic field during the low energy of the injected particles which is typical for the given accelerator. Consequently the problem of particle injection is essentially simplified in comparison with injection into storage rings. Moreover, the small injection energy simplifies the problem of obtaining positrons. These properties permit attainment of a comparatively high rate of storage and thus a lowering of the requirements made on the degree of vacuum. To verify the possibility in principle of realizing the method of particle storage in a synchrotron, experiments were carried out on a 280-Mev synchrotron under specific conditions of particle energy (170 Mev for maximum H and 7 Mev for minimum H), amplitude U of hf-potential (1.8 kv), modulation depth ΔU (0.36 kv), rate of growth of driving magnetic field at moment of injection ($1.5 \cdot 10^5$ oersteds/sec), pressure of residual gas in vacuum chamber ($5 \cdot 10^{-6}$ mm/Hg). The source of electrons is an 8-Mev microtron [K. A. Belovintsev, A. Ya. Belyak, A. N. Gromov, Ye. M. Moroz, P. A. Cherenkov, "Atomnaya Energiya, 14, 359 (1963)]. Finally as shown by tests conducted on electron storage in a synchrotron, it is possible to carry out simultaneous storage of both electrons and positrons in quantities sufficient for setting up experiments on colliding beams if the pressure in the vacuum chamber is lowered to 10^{-8} mm/Hg and the conditions for particle capture are suitably improved. Orig. art. has 4 figures.

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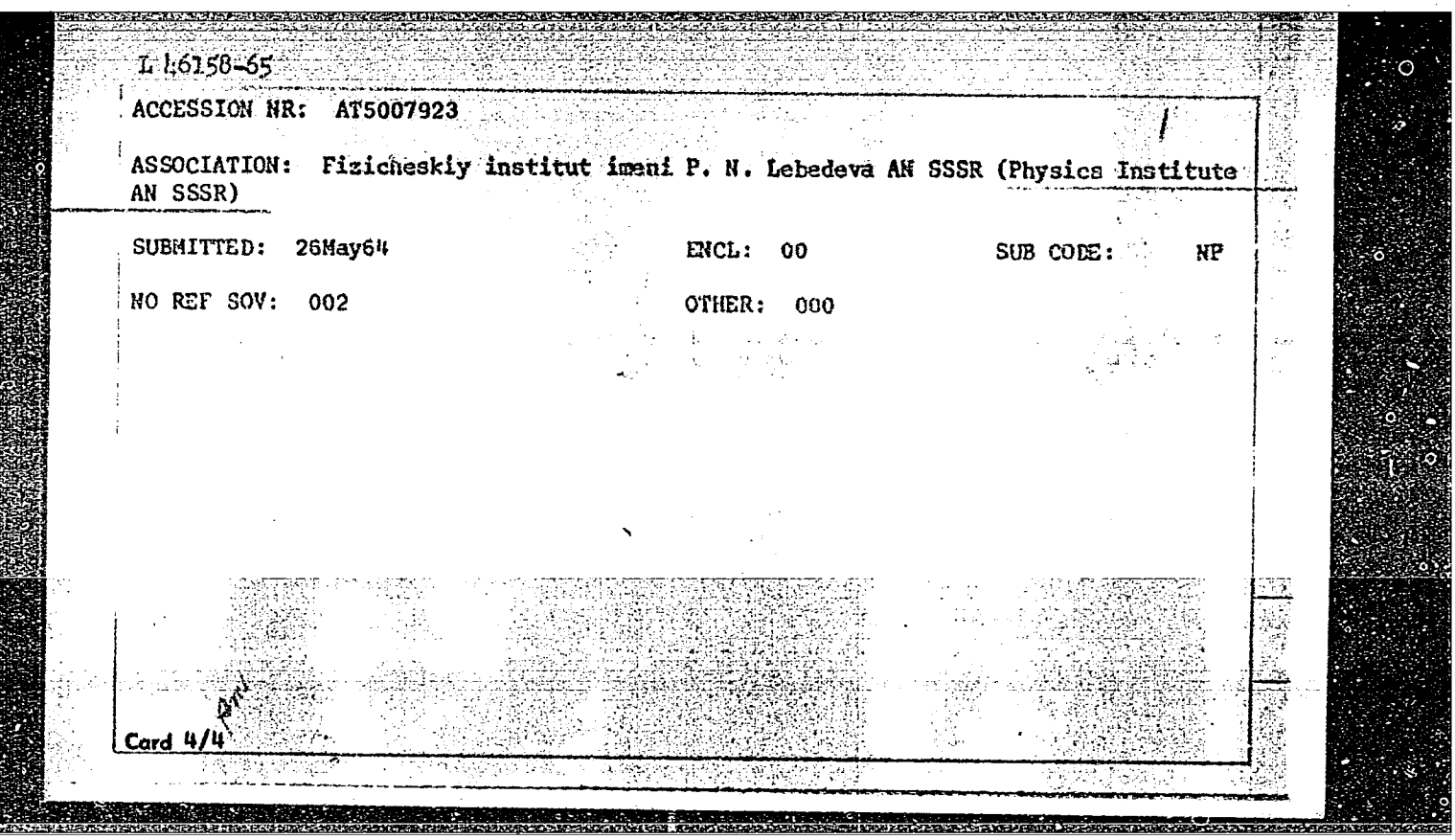

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ASSOCIATION: Fizicheskiy institut imeni P. N. Lebedeva AN SSSR (Physics Institute AN SSSR)

SUBMITTED: 26May64 ENCL: 00 SUB CODE: NP

NO REF SOV: 002 OTHER: 000

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ACC NR: AT6031762 SOURCE CODE: UR/3092/66/000/004/0123/0135

AUTHOR: Belyak, A. Ya.; Gusev, O. A.; Nechayev, A. G.; Rezchikova, N. S. 43 B+1

ORG: none

TITLE: Controlling the magnetic field derivative during injection into a synchrotron

SOURCE: Moscow. Nauchno-issledovatel'skiy institut elektrofizicheskoy apparatury. Elektrofizicheskaya apparatura, no. 4, 1966, 123-135

TOPIC TAGS: synchrotron, magnetic field intensity, magnetic field stabilization

ABSTRACT: The physical basis for controlling the magnetic field derivative, the method for controlling this derivative, the variation in this derivative as a function of circuit parameters, the selection of circuit parameters, and the methods of stabilizing the derivative are established and verified experimentally by means of a model. The model consisted of a charging network, a discharging network and a system for stabilizing the voltage of the storage capacitor. The model was tested both in the stationary and transient state. The results of the experiment showed that in order to obtain a discharge current pulse with an amplitude of 210 amp, the maximum for the model, the storage capacitor must be charged to a voltage of 2500 v while the voltage of the charging transformer reaches a value of 220 v. A stable operation of the system was obtained by varying the damping resistance in the range from 40 to 400 ohms when the

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model was powered by line voltage. Oscillograms of the transient process show that after the circuit is turned on, a steady state is established after 7-8 periods. The stabilization system becomes active during the 6th period. The results of the investigation showed that the equations derived and used to compute the circuit parameters of the model are valid. Orig. art. has: 7 figures, 18 formulas.

SUB CODE: 20/ SUBM DATE: none/ ORIG REF: 003/ OTH REF: 004

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BELYAK, B.I.

Using deposits of sewer water in vegetable growing
Sad i og. No. 8, 1952

BELYAK, B. I.

BELYAK, B. I. -- "The Use of Waste Waters and Their Sediment for Fruit Crops under Conditions of the Left-Bank Forest-Steppe Region of the Ukrainian SSR." Min Higher Education Ukrainian SSR. Khar'kov Order of Labor Red Banner Agricultural Inst imeni V. V. Dokuchayev. Khar'kov, 1955. (Dissertation for the Degree of Candidate in Agricultural Sciences).

So.: Knizhnaya Letopis', No. 2, 1956.

M

Country : USSR
Category: Cultivated Plants. Potatoes. Vegetables. Cucurbits.

Abs Jour: RZhBiol., No 22, 1958, No 100301

Author : Belyak, B.I.
Inst : Ukrainian Sci. Res. Inst. for Vegetable and Potato Cultivation.
Title : The Influence of Run-Off Waters on the Yield of Early Cabbage on Irrigated Fields.

Orig Pub: Nauchn. tr. Ukr. n.-i. in-t ovoshchevodstva i kartofelya, 1957, 4, 17-26

Abstract: In 1950-1952, in the experiments at "Polya orosheniya" Sovkhoz in Khar'kovskaya Oblast' on heavy and medium weakly-saline chernozems on plots of 102.6 square meters with four

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