

GUZIKOWSKI, J.

Instructions for industrial physicians on the minimum standards in mining industry. Med. pracy 4 no.2:139-158 1953. (GLML 24:5)

1. Of the Department of Methods and Organization (Director--Prof. B. Nowakowski, M. D.) of the Institute of Industrial Medicine in Rokitnice.

GUZIKOWSKI, K.

Now we do not bake bread at home in Wierzchoslawice. p. 7; ROLNIK
SPOLDZIELCA. (Centrala Rolnicza Spoldzielni "Samopomoc Chlopska")
Warszawa; Vol. 8, no. 18, May 1955.

SOURCE: East European Accessions List (EEAL), Library of Congress,
Vol. 4, No. 12, December 1955.

KULIYEV, Israfil Piri-ogly, prof., doktor tekhn.nauk; GUZIN, I.S.,
nauchnyy red.; KOMAROVA, T.F., red.; SAVCHENKO, Ye.V., tekhn.red.

[Petroleum marine deposits in Azerbaijan] Morskaya neft' Azer-
baidzhana. Moskva, Izd-vo "Znanie," 1961. 27 p. (Vsesoyuznoe
obshchestvo po rasprostraneniю politicheskikh i nauchnykh znaniy.
Ser.4, Tekhnika, no.2) (MIRA 14:1)
(Azerbaijan--Oil well drilling, Submarine)

G. UZIN, P. L.

✓ 5230 Diffusion in Iron-Chromium Alloys. (Digest of "In-
fluence of Chromium on the Self-Diffusion of Iron", by P. L. Uzin,
Guan; Doklady akademii nauk S.S.S.R., v. 109, 1955, p. 118.
U. S. Atomic Energy Commission, v. 89, Feb. 1956, p. 120, 121.
Self-diffusion coefficients were determined using radioactive ^{59}Fe
as a tracer.

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/APR

[Handwritten signatures and initials]

GUAN, I. L., et al

"Investigating mobility of carbon atoms and inter-atomic interaction in alloys by radio-active indicator method," a paper presented at the International Conference on Radioisotopes in Scientific Research, Paris, 9-20 Sep 57

GUZINA, Bosko, ing.; PCPOVIC, Velizar, ing.

Hydrologic analysis and investigations of stream sources in the vicinity of Niksic. Vodoprivreda Jug 2 no.4/5:63-70 '59. (EEAI 9:10)

1. Energoprojekt, Beograd, Carice Milice 2.
(Montenegro--Water)

GUZINA, D.

STEFANOVIC, S.; MILOSAVLJEVIC, A.; RUVIDIC, R.; BALOG, B.; GUZINA, D.;
FILIPOVIC, D.

Osteomyeloreticulosis; myeloid metaplasia of the spleen;
myelofibrosis. Lijec. vjes. 78 no.3-4:124-131 Mar-Apr 56.

1. Iz I, III i IV Interne Klinike Medicinskog Fakulteta u
Beogradu.

(ANEMIA, LEUKOERYTHROBLASTIC, case reports
osteosclerosis myelofibrosis (Ser))

STEFANOVIC,S.; MILOSAVLJEVIC,A.; STEFANOVIC,R.; VUKOTIC,D.; PASTRAKULJIC,
N.; PERISIC,V.; GUZINA,D.; ROLOVIC,Z.

Clinical significance of the determination of coagulation
factors. Acta med. iugosl. 13 no.2:164-196 '60.

1. Clinique Medicale A de la Faculte de Medecine de Belgrade
et Centre de la transfusion sanguine de Belgrade.
(BLOOD COAGUIATION)

GUZINA, D.; PANTELIC, M.; MILOSAVLJEVIC, A.; BUGARSKI, M.; ZIVKOVIC, S.;
JONAS, S.; NESKOVIC, B.

Use of radioactive iodine in the treatment of hyperthyroidism. Prim.
radioaktiv. izotop. 2 no.3:69-72 D '61.

1. Onkoloski institut Medicinskog fakulteta u Beogradu Upravnik: Prof.
dr. Marija Visnjic-Frajnd.

(IODINE ISOTOPES THERAPEUTIC) (HYPERTHYROIDISM)

x

MILOSAVLJEVIC, A.; NESKOVIC, B.; BUGARSKI, M.; PANTELIC, M.; GUZINA, D.

Irradiation of myelofibrosis with radioactive iron.
Bul sc Youg 7 no.1/2:12 F-Ap '62.

1. Onkoloski institut Medicinskog fakulteta, Beograd.

*

MILOSAVLJEVIC, Aleksije; GUZINA, Doka; PANTELIC, Mladomir;
BUGARSKI, Miodrag; NESKOVIC, Blagoje

Measurement of blood volume in polycythemia. Srpski arh. celok.
lek. 90 no.4:421-428 Ap '62.

1. Onkoloski institut Medicinskog fakulteta Univerziteta u
Beogradu Upravnik: prof. dr. Marija Vianic-Frajnd.

GUZINA, Djoko; MILOSAVLJEVIC, Aleksije; PANSELIC, Mladimir; BUGARSKI, Miodrag.

Studier on the blood, erythrocytes, plasma volume and survival of erythrocytes in splenomegalic forms of liver cirrosis. Srpski arh. celok. lek. 92 no 9:869-877 S'64.

1 Onkoloski institut Medicinskog fakulteta Univerziteta u Beogradu (Direktor: prof. dr Marija Visnjic-Frajnd).

MILOSAVLJEVIC, Aleksije; PANTELIC, Mladomir; RUGARSKI, Miodrag;
GUZINA, Doko

Criteria for the evaluation of congestive spleen diseases
using radioactive chromium (Cr-51). Srpski arh. celok. lek.
92 no.12:1165-1174 D '64.

1. Onkoloski institut Medicinskog fakulteta Univerziteta u
Beogradu (Direktor: prof. dr. Marija Visnjic-Frajnd) Interno
oddeljenje za primenu radioaktivnih izotopa (Nacelnik: dr.
Aleksije Milosavljevic).

GUZINA, Nemanja, dipl. inz.

Some observations made during the visit to some breweries in
Czechoslovakia. Kem ino 13 no. 6:421-422 Je '64.

1. Sarajevo Brewery, Sarajevo.

GUZINMAN, L.M.

Method of obtaining plastic prostheses with a smooth surface.
Stomatologia no.4:62 JI-Ag '55. (MLRA 8:10)

1. Iz polikliniki g. Kemerovo (glavnyy vrach A.I.Timofeyev)
(DENTAL PROSTHESIS)

GUZINSKIY, D.Ya.; VASKAN, G.K., nauchnyy sotr.; POLIKARPOV, V.P.; FITOVA, L.;
red.; ZHEMANYAN, N., tekhn. red.

[Orchards on the Dniester terraces; development of fruit culture on
the "Put' k kommunizmu" Collective Farm in Dubossary District] Sady
na terrasakh Dnestra; iz opyta razvitiia sadovodstva kolkhoza "Put' k
kommunizmu" Dubossarskogo raiona. Kishinev, Gos. izd-vo "Kartia mol-
doveniaske," 1961. 59 p. (MIRA 14:7)

1. Predsedatel' kolkhoza "Put' k kommunizmu" Dubossarskogo rayona (for
Guzinskiy). 2. Nauchno-issledovatel'skiy institut sadovodstva, vino-
gradarstva i vinodeliya (for Vaskan, Polikarpov)
(Dubossary District—Fruit culture)

GUZIORSKI, Jerzy, mgr., inż.; WIELGUSIEWICZ, Wladyslaw, mgr., inż.

Development trends of the combined heat and electric power economy
in the domestic industry. Energetyka przem 9 no.11:384-387 '61.

1. Biuro Studiow Komitetu Elektryfikacji Polski, Polska Akademia
Nauk, Dzial w Gliwicach.

GUZIUR, Oswald, mgr inz.

Requests concerning vinidur tubes for electric installations.
Wiad elektrotechn 28 no.3:68-70 Mr '61.

1. Zaklady Wytworcze Osprzetu Sieciowego, Kostuchna.

GUZIUR, Oswald, mgr inz.

Electric installations in vinidur tubes. Wiad elektrotechn
28 no.5:139-141 My '61.

L 04148-67 EWT(1)/EWT(m)/EWP(t)/ETI IJP(c) JD
ACC NR: AP6026672 SOURCE CODE: UR/0181/66/008/008/2293/2299

AUTHOR: Peka, G. P.; Guzly, A. S.

43
B

ORG: Kiev State University im. T. G. Shevchenko (Kiyevskiy gosudarstvennyy universitet)

TITLE: Investigation of the surface levels on cuprous oxide by the field effect and luminescent field effect methods

SOURCE: Fizika tverdogo tela, v. 8, no. 8, 1966, 2293-2299

TOPIC TAGS: cuprous oxide, electron structure, luminescent crystal, CRYSTAL SURFACE

ABSTRACT: A method is proposed for determining the parameters of surface levels from the dependence of the luminous intensity of a semiconductor on the band bending near its surface. Measurements of the field effect and luminescent field effect are performed at sinusoidal voltage and a frequency of 140 cps on Cu₂O crystals. The measurements reveal the existence of a system of fast (intrinsic time $\tau < 10^{-3}$ sec) levels at the Cu₂O surface, the relaxation times of which vary over a wide range. A direct effect of the degree of population of the surface levels on the luminous intensity of Cu₂O is also observed. The values of the energy position of a surface level determined by both methods are found to be in excellent agreement. Orig. art. has: 6 figures, 1 table, and 4 formulas.

SUB CODE: 20/ SUBM DATE: 05Nov65/ ORIG REF: 007/ OTH REF: 003
Card, 1/1 *tdh*

GUZIY, F.Ye.; SEMENOV, M.V.; SOYFER, V.M.

New design of electrode holder heads for arc furnaces. Metallurg 5
no.5:20-21 My '60. (MIRA 14:3)

1. Khar'kovskiy zavod tyazhelogo elektromashinostroyeniya
(Electric furnaces—Equipment and supplies)

LEYDERMAN, M.I.; GUZIY, F.Ye.

Cooling of ETMK-2700/10 electric furnace transformers. Energ. i elektrotekh. prom. no.1:64-67 Ja-Mr '63. (MIRA 16:5)

1. Khar'kovskiy zavod "Elektrotyazhmash" imeni V.I.Lenina.
(Electric transformers--Cooling)
(Electric furnaces--Equipment and supplies)

GUZIYEV, I.S.

Rare alkali basaltoid rocks. Zap. Vses. min. ob-va 93 no.3:
367-369 '64. (MIRA 18:3)

1. Kamchatskoye geologicheskoye upravleniye, Petropavlovsk-
Kamchatskiy.

VUL, A.I.; GUZKO, A.G.

Engineering office of the Alma-Ata post office. Vest. sviazi 21
no.4:15 Ap '61. (MIRA 14:6)

1. Nachal'nik laboratorii Alma-Atinskogo pochtamta (for Vul).
2. Nachal'nik tekhnicheskogo kabineta Alma-Atinskogo pochtamta
(for Guzko).

(Alma-Ata--Post service)

GUZMAN, A.A., inzhener.

More attention to efficiency promoters and inventors engaged in
consumers' cooperatives. Izobr. v SSSR 1 no.4:39-42 0 '56.
(MLRA 10:3)
(Materials handling) (Cooperative societies)

GUZMAN, A.A.

Section of Odintsovo (Dnieper-Moscow) interglacial sediments
near Khmel'niki, Znamensk District Smolensk Province. Mat.
po geol.i pol.iskop.tsentr.raion.evrop.chasti SSSR no.5:136-
138 '62. (MIRA 16:6)
(Khmel'niki region (Smelensk Province)--Palyunology)

GUZMAN, A.^A; MITROPOL'SKIY, A.

Organize skillfully the introduction of vending machines. Sov.
torg. no.1:15-20 Ja '59. (MIRA 12:2)
(Vending machines)

GUZMAN, A. A. MITROPOL'SKIY, A.

Let's improve and modernize vending machines. Sov. torg 33 no.10:8-11
0 '59.

(MIRA 13:1)

(Vending machines)

GUZMAN, A.A; KURKIN, S.; MITROPOL'SKIY, A.

How to use vending machines for copybooks and pencils correctly.
Sov. torg. 33 no.11:47-52 N '59. (MIRA 13:2)
(Vending machines)

GUZMAN, Abram Aronovich; KURKIN, Sergey Ivanovich; LYUDSKOV, B.P., red.;
MAMONTOVA, N.N., tekhn.red.

[Assembling, operating, and repairing vending machines] Montazh,
tekhnicheskoe obsluzhivanie i tekushchii remont torgovykh avto-
matov. Moskva, Gos.izd-vo torg.lit-ry, 1960. 131 p.

(MIRA 13:12)

(Vending machines)

GUZMAN, A.A.; KANTOROVICH, V.I.

Performance testing of FAK-0,7, FAK-1,1, and FAK-1,5 refrigerating machinery units. *Enol.tekh.* 38 no.2:38-40 Mr-Ap '61. (MIRA 14:3)

L. Nauchno-issledovatel'skiy institut trgovli i obshchestvennogo pitaniya.

(Refrigeration and refrigerating machinery)

GUZMAN, A.G.

Almond-shaped diabases of the Middle and Lower Devonian
volcanogenic sedimentary iron-bearing strata in the Kalguty
River basin of the southeastern Altai. Izv. Alt. otd. Geog. ob-va
SSSR no.5:33-35 '65. (MIRA 18:12)

1. Sibirskiy nauchno-issledovatel'skiy institut geologii,
geofiziki i mineral'nogo syr'ya, Novosibirsk.

SAAKOV, Bogdan Artashesovich, doktor med. nauk; GUZMAN, F.A.,
red.; NARINSKAYA, A.L., tekhn. red.

[Mechanisms of the general complications in thermal
injuries] Mekhanizmy obshchikh oslozhnenii termicheskikh
travm. Kiev, Gosmedizdat USSR, 1963. 290 p.

(MIRA 17:3)

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1. GUZMAN, G.^A; NOSKOV, M.
2. USSR (600)
4. Cotton Growing
7. Chief tasks of cotton workers.
Khlopkovodstvo no. 8, 1952

9. Monthly List of Russian Accessions, Library of Congress, January 1953, Unclassified.

GUZMAN, G.A.

State standards are a weapon in the fight for a high quality of
cotton. Tekst. prom. 18 no. 7:14-16 J1 '58. (MIRA 11:7)
(Cotton--Standards)

GUZMAN, I. I.
ca

Properties of Chromanil steel. I. I. Guzman and N. F. Maurakh. *Armirovannyye Stali* 1940, No. 10, 45-9. Tests were made with steel contg. C 0.20-0.30, Si 0.9-1.2, Mn 0.8-1.1 and Cr 0.8-1.1%. Sheets and tubes of this type can be used in airplane construction especially for parts requiring a yield point of 65-90 kg./sq. mm. (after normalization) or up to 140 kg./sq. mm. (after hardening and tempering). The compn. should be C 0.22-0.28, Si 0.9-1.2, Mn 0.8-1.1, S 0.030, P 0.030 and Cr 0.8-1.1%. Temp. of hardening and annealing should be 800 ± 10° and temp. of normalization at 900 ± 10°. Rods of this steel should not be used. After hardening and tempering at 250-375° it has the lowest impact toughness and elongation. B. Z. Kamich

ASB-SLA METALLURGICAL LITERATURE CLASSIFICATION

GUZMAN, I. I., Engr. Cand. Tech. Sci.

Dissertation: "High-Strength Steels for Aircraft Building." All-Union Sci Res Inst
of Aviation Materials, 30 Jul 47.

SO: Vechernyaya Moskva, Jul, 1947 (Project #17836)

Shelton, R. E. (engr)

Dissertation: "Purification of air, liquid air, and liquid oxygen in air-separating apparatus by the removal of carbon dioxide." Cand Tech Sci, Moscow Institute of Chemical Machine Building, 2 Jul 54. (Voennoyazykaizdat, Moscow, 23 Jun 54)

See: OMA 918, 23 Dec 1954

ROCHEV, N.N., glav. red.; VAVILOV, P.P., red.; VERTEL', E.I., red.; GORELIK, A.I., red.; GUZMAN, I.S., red.; KUZNETSOV, G.N., red.; MEDVEDEV, G.A., red.; MODYANOV, Ya.V., red.; PANTELEYEVA, A.A., red.; POLYAKOV, V.V., red.; POPOV, S.A., red.; POPOVA, S.M., red.; RAYEVSKIY, S.S., red.; RUDAKOV, S.V., red.; SYUTKIN, A.F., red.; USOV, A.I., red.; USTINOVA, I.K., red.; SHKIL', P.T., red.; CHEBYKIN, N.P., red.; MEZENTSEV, S.A., red.; MOROZOV, V.S., red.; OPLESNIN, I.I., tekhn. red.

[Forty years of the Komi A.S.S.R., 1921-1961; studies on the cultural and economic development of the Komi Republic]40 let Komi ASSR, 1921-1961; ocherki o razviti i ekonomiki i kul'tury Komi Respubliki. Syktyvkar, Komi knizhnoe izd-vo, 1961. 154 p. (MIRA 14:11)
(Komi A.S.S.R.—Economic conditions) (Komi A.S.S.R.—Culture)

GUZMAN, I.S., kand. tekhn. nauk

Oxygen and acceleration of the open-hearth smelting process.
Stal' 24 no.5:412-413 My '64. (MIRA 17:12)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut kislородnogo mashinostroyeniya.

GUZMAN, I.S., kand. tekhn. nauk; KOSTRITSKIY, V.Ya.

Present state of oxygen machinery manufacture in foreign countries. Trudy VNIIMASH no.8:201 '64.

(MIRA 17:10

15(2)

307/156-59-1-17/54

AUTHOR:

Guzman, I. Ya.

TITLE:

The Peculiarities of the Structure and the Properties of Foam Ceramics on the Basis of Pure Oxides Al_2O_3 and BeO (Osobennosti stroeniya i svoystv penokeramiki na osnove chistykh okislev Al_2O_3 i BeO)

PERIODICAL:

Nauchnyye doklady vysshey shkoly. Khimiya i khimicheskaya tekhnologiya, 1959, Nr 1, pp 181 - 185 (U.S.R)

ABSTRACT:

Foam ceramics have essential advantages over the customary method of adding combustible organic substances on the production of porous ceramics. An investigation is made into foam masses of rosin soap with suspensions of highly refractory powdered oxides. The foam mass thus forms a three-phase system (solid oxide, liquid, and air). Specific gravity and porosity depend on the ratio of these phases (Diagram). On firing a peculiar cell structure is formed which closely surrounds the air pores. At high temperatures diffusion processes leading to re-crystallization occur in the crystal lattice. This re-crystallization is the more intensive the finer the material

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The Peculiarities of the Structure and the Properties of Foam Ceramics on the Basis of Pure Oxides Al_2O_3 and BeO

has been powdered, i.e. the larger the surface is. In the same way, this re-crystallization is favored by such defects in the crystal lattice as arise on the preceding thermal treatment of the oxides, but also on the addition of substances that form solid solutions (TiO_2 in Al_2O_3 ; CaO in BeO). On firing a growth of the crystals takes place, as well as an agglomeration in thin layers. The hardening of the body is accompanied by a shrinkage in volume. Diagrams show the continuous course of shrinkage with rising temperatures, as well as the sharp turn in the curve when adding TiO_2 or CaO. The honeycomb-shaped macro-structure and the micro-structure of the pore shells consisting of crystals are clearly discernible under the microscope. The physical data listed in tables (gas permeability, heat resistance, specific gravity, deformation under stress, etc) prove the valuable properties of foam beryllium and foam cerundum. There are 4 figures, 2 tables, and 4 references, 3 of which are Soviet.

Card 2/3

The Peculiarities of the Structure and the Properties of Foam Ceramics on the Basis of Pure Oxides Al_2O_3 and BeO SOV/156-59-1-17/54

ASSOCIATION: Kafedra keraniki i ogneporov Moskovskogo khimiko-tekhnologicheskogo instituta im. D. I. Mendeleyeva (Chair of Ceramics and Refractories of the Moscow Institute of Chemical Technology imeni D. I. Mendelejev)

SUBMITTED: September 6, 1958

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15(2)

AUTHORS: Guzman, I. Ya., Poluboyarinov, D. N. SOV/131-59-2-6/16

TITLE: Light Aluminum Oxide Refractories (Legkovesnyye ognepory iz okisi alyuminiya)

PERIODICAL: Ognepory, 1959, Nr 2, pp 71-79 (USSR)

ABSTRACT: At the beginning Pirogov, Abbi, and Reyngart are mentioned who have dealt with this problem already earlier. The authors of the present paper investigated the production possibilities of pure light corundum products of high porosity, sufficient strength, and volumetric stability at high temperatures. For this purpose they used technical alumina of the G-2 mark which had been burnt before at temperatures of 1450 and 1600°. In order to increase the crystal growth 1-2% of TiO₂ were added to the alumina. The dispersion of alumina is mentioned in table 1. Furthermore, the production of samples from foam material and of a mass of burning out additions is described in detail. The dependence of the specific weight of the foam mass on the suspension humidity and the amount of foam is represented in figures 1 and 2. The change of the strength of the blank during the burning process may be seen from table 2. In figure 3 the linear change in the

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Light Aluminum Oxide Refractories

SOV/131-59-2-6/16

course of burning of foam mass samples from alumina which had been burnt before and in figure 4 the dependence of the breaking strength under pressure on the specific weight is represented. In tables 3 and 5 the properties of light foam mass products are given at various conditions, and in table 4 the coefficients of thermal conductivity of various corundum materials are mentioned. The linear changes of foam mass samples in burning are represented in figure 5. The properties of light products with burning out additions may be seen from table 6. Figures 6, 7, and 10 show the macrostructure and figures 8 and 9 the microstructure of light foam products as given by B. V. Ivanov. Conclusions: pure light corundum materials with a wide range of specific weights can be produced from alumina by the foam method. Products of pre-burnt alumina show the best qualities. The light corundum blank shows little strength as well as a high shrinkage in drying and burning and should be burnt at 1700 - 1750° .

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Light Aluminum Oxide Refractories

SOV/131-59-2-6/16

By adding 1 - 2% of TiO_2 the burning temperature can be reduced to 1550° . The light corundum-foam product may serve as heat-insulating material up to 1750° . There are 6 figures, 6 tables, and 11 references, 8 of which are Soviet.

ASSOCIATION: Khimiko-tehnologicheskii institut im. Mendeleyeva
(Chemico-Technological Institute imeni Mendeleyev)

Card 3/3

GUZMAN, I. Ya., Cand Tech Sci -- (diss) "Heat insulation of high-refractory ceramics from Al_2O_3 , BeO and ZrO_2 . (Technology, structure, and properties)." Moscow, 1960. 23 pp; 2 pages of illustration; (Ministry of Higher and Secondary Specialist Education RSFSR, Moscow Order of Lenin Chemical Technology Inst im D. I. Mendelejev); 180 copies; price not given; (KL, 17-60, 152)

POLUBOYARINOV, D.N.; ADUSHKIN, L.Ye.; GUZMAN, I.Ya.; ZAYONTS, R.M.

Some properties of porous cordierite ceramic. Ogneupory. 26
no.8:370-372 '61. (MIRA 14:9)

1. Khimiko-tekhnologicheskii institut im. Mendeleeva (for
Poluboyarinov, Adushkin, Guzman). 2. Nauchno-issledovatel'skiy
institut stroitel'noy keramiki (for Zayonts).
(Cordierite) (Refractory materials)

POLYBOYARINOV, D.N.; GUZMAN, I.Ya.; NISHANOVA, I.Ya.

Structure and certain properties of porous, ZrO_2 -base ceramics.
Trudy MKHTI no.37:166-179 '62. (MIRA 16:12)

GUZMAN, I.Ya.; POLUBOYARINOV, D.N.; Prinimali uchastiye: KOMISSAROVA,
N.M.; MOROZOVA, V.S.

Some properties of porous ceramics made of beryllium oxide.
Ogneupory 27 no.10:457-462 '62. (MIRA 15:9)

1. Khimiko-tekhnologicheskij institut im. Mendelejeva.
(Refractory materials) (Beryllium oxide)

GUZMAN, I.Yü.; MOROZOVA, V.S.

Foamed carborundum and its properties. Ogneupory 28 no.12:
558-561 '63. (MIRA 16:12)

1. Khimiko-tekhnologicheskii institut im. D.I. Mendeleeva.

ACCESSION NR: AP4029227

S/0131/64/000/004/0182/0185

AUTHOR: Guzman, I. Ya.; Komissarova, N. M.; Krutikova, I. M.; Stepanov, M. A.

TITLE: Sintering and some properties of CaF_2 ceramics

SOURCE: Ogneupory*, no. 4, 1964, 182-185

ABSTRACT: Calcium fluoride has found wide use in various regions of technology as an active flux. Recently, calcium fluoride has begun to be used as a construction and shielding material for conducting a number of high-temperature chemico-metallurgical processes in fluorine-containing media. The authors bring to light processes of sintering as well as some properties of ceramics based on calcium fluoride. Characteristics of the initial materials are given in a table. Characteristics of ceramics from commercial calcium fluoride and the characteristics of ceramics from pure calcium fluoride are presented in tables which depict their properties at different temperature ranges. The composition in properties of grain structure samples of commercial calcium fluoride are given. Testing of calcium fluoride ceramics for corrosion resistance was conducted in a fluorine medium (concentration 92-97%) at a temperature of 750°C for 16 hours. The evaluation was conducted by visual and weight methods, as well as by stability change during the testing. The rate of corrosion of laboratory and industrial samples was from 5.5 to $19 \text{ g/m}^2/\text{hr}$;

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ACCESSION NR: AP4029227

during testing the stability increased. The obtained results attest to the fact that in a fluorine medium, at 750°C, calcium fluoride ceramics are completely stable and maintain their stability. Therefore, parts can be recommended for service under such conditions as refractory lining material, filters, etc. Orig. art. has: 4 tables.

ASSOCIATION: Khimiko-tekhnologicheskii institut im. D. I. Mendaleyeva (Chemico-technological Institute)

SUBMITTED: 00

DATE ACQ: 28Apr64

ENCL: 00

SUB CODE: ML

NO REF SOV: 000

OTHER: 005

Card 2/2

ACCESSION NR: AP4040466

S/0131/64/000/006/0281/0284

AUTHOR: Guzman, I. Ya.; Serova, G. A.

TITLE: Porous magnesium oxide refractories

SOURCE: Ogneupory*, no. 6, 1964, 281-284

TOPIC TAGS: magnesium oxide, magnesia, magnesia refractory, periclase refractory, porous refractory, combustible additive method, periclase

ABSTRACT: The valuable technical characteristics of magnesium oxide prompted the study of the physical properties of porous magnesium oxide products as compared with the properties of dense magnesium oxide refractories. A relatively strong, permeable, and highly refractory material was obtained with technical grade magnesium oxide (98.5% MgO), with 30—60% porosity. The properties of the porous products can be controlled over a wide range by varying the grain size of the filler, the filler to binder ratio, content and

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ACCESSION NR: AP4040466

size composition of the combustible additive (petroleum coke). Highly refractory, highly permeable (to gases), porous materials were obtained with periclase by the method of combustible additives. The low thermal conductivity of periclase-based ceramics makes possible their use as high-temperature heat insulators, in the absence of heavy loads and sudden temperature changes; they could be used as filters in corrosive media where basic refractories are required. Orig. art. has: 4 tables and 1 figure.

ASSOCIATION: Khimiko-tekhnologicheskii institut im. D. I. Mendeleeva
(Chemicochemical Institute)

SUBMITTED: 00

DATE ACQ: 06Jul64

ENCL: 00

SUB CODE: MM

NO REF SOV: 005

OTHER: 000

Card 2/2

L 54792-65

EWP(e)/EWT(m)/I WH

ACCESSION NR: AP5013511

UR/0131/65/000/005/0041/0046
666.76+546.201

AUTHOR: Guzman, I. Ya.; Tunakova, Ye. I.

TITLE: Bond formation during firing of refractories based on silicon carbide

SOURCE: Ogneupory, no. 5, 1965, 41-46

TOPIC TAGS: silicon, carborundum, refractory material, silicon carbide

ABSTRACT: The authors studied the chemical changes which take place during calcining of masses made up of Si+CSi in nitrogen and in carbon charges. The variables in this study were temperature and the composition of the carbon charge. The test specimens were made up of grade M-14 carborundum (~98% SiC, average particle diameter 14 μ) and grade KR-0 silicon (~99% Si, average particle diameter 2 μ). The SiC/Si weight ratios which were studied were: 100:0; 80:20; 60:40; 40:60; 20:80; 0:100. Samples with a diameter and height of ~25 mm were pressed under a pressure of 1,000 kg/cm². The specimens were roasted in charges of three types: 1) coke (petroleum coke with an ash content of approximately 4%); 2) a mixture of 50% coke

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and 50% quartz sand; 3) a mixture of 50% coke, 40% quartz sand and 10% elemental silicon. Roasting was done in three temperature ranges: 1300-1350, 1450-1500, and 1650-1700°C. Provision was made for ten hours holding at 1300-1350°C, i.e. at a temperature somewhat lower than the melting point of silicon, and for two hours holding at the final temperature. The properties of calcined samples with a composition of 40% Si and 60% SiC [apparent density (volumetric weight) of the raw material was 1.58 g/cm³] as a function of the roasting temperature and the composition of the carbon charge are given in table 1 of the Enclosure. The changes in chemical composition of a sample based on 60% Si and 40% SiC as a function of roasting temperature in a coke charge are given in fig. 1 of the Enclosure. It was found that the bond formation during roasting of silicon and of a mixture of silicon carbide with silicon in carbon charges is caused by reactions of silicon with the gaseous phase--basically with CO and N₂. The interaction results in a considerable change of weight--up to ~67% in the case of full reaction of silicon. It is a simple matter to determine the change in weight during roasting and this should be done to control calcining of refractories of this type. Bond formation takes place mainly in the 1100-1450°C range, β-SiC being the main compound which is formed. Silicon hydroxynitride Si₂ON or Si₂ON₂ is also formed as well as a certain amount of cristobalite. In a pure carbon charge above 1500°C the bond begins to dissociate

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due to interaction of SiC and residual silicon with CO to form silicon monoxide. This reaction is accompanied by losses of weight in the specimens and an increase in their porosity together with losses in strength. When articles made of a mixture of SiC with Si are being roasted in a pure carbon charge, the temperature should not be raised above 1450°C. When quartz sand and/or silicon are added to the carbon charge, the mechanism of bond formation is not changed but dissociation is prevented. Therefore it is recommended that quartz sand be added to the charge. In chemical analysis of refractories of this type and in estimating the quantity of silicon nitride from the nitrogen content, it should be kept in mind that the nitride is in the form of hydroxynitride (Si_2ON or Si_2ON_2). Orig. art. has: 5 figures, 3 tables.

ASSOCIATION: Moskovskiy khimiko-tekhnologicheskii institut im. D. I. Mendeleeva (Moscow Institute of Chemical Technology)

SUBMITTED: 00

ENCL: 02

SUB CODE: MT

NO REF SOV: 004

OTHER: 004

Card 3/5

L 27425-66 EWP(e)/ENT(m)/EIC(f)/EWG(m)/T JD/JG/AT/WH

ACC NR: AP6017671

SOURCE CODE: UR/0083/65/010/005/0571/0578

AUTHOR: Guzman, I. Ya. (Candidate of technical sciences)

ORG: none

TITLE: Porous technical ceramics made of high-refractory oxides and carbides

SOURCE: Vsesoyuznoye khimicheskoye obshchestvo. Zhurnal, v. 10, no. 5, 1965, 571-578

TOPIC TAGS: refractory oxide, carbide, alumina, vacuum furnace, silicon carbide, ceramic material, heat insulation

ABSTRACT: Heat-insulating refractory materials are widely used in heat equipment of different branches of technology. Chamotte and dinas lightweights are highly effective heat-insulating materials; however, due to their moderate refractoriness (1610-1750°C) they cannot be used at temperatures higher than 1400-1500°C. A somewhat higher operating temperature (up to 1500-1600°C) is afforded by the use of high-alumina lightweight refractories, made of natural and artificially high-alumina raw materials, and also the principal heat-insulating refractories based on magnesia raw materials. These types of articles, in several cases, do not meet the growing requirements placed on heat-insulating and heat-protective materials for high-temperature vacuum furnaces, rocket equipment, etc. Therefore, during the postwar years numerous

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UDC: 661.01

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ACC NR: AP6017671

studies have been made on the development of technology, on the study of structure and properties of porous technical ceramics based on pure high-refractory oxides and carbides of silicon. There are many methods of making ceramic materials porous. Three methods in general are applied in obtaining high-refractory heat-insulating materials for porous end products: introduction of calcined additives with low ash content; addition to suspensions of ceramic materials of foaming agents or individual prepared foam; gas formation through chemical reactions. Selection of the method of porous product manufacture depends on the porosity required and the desired structure. To obtain materials with a 30% porosity, usually compositions based on sintered granular narrow-fractionated filler bound by a high-dispersion component of the same chemical composition are used. The porosity can be increased somewhat by replacement of the sintered filler grains with porous granules. Materials with a porosity up to 50-60% are obtained by the method of introduction and subsequent combustion of calcined additives. The highest porosity, all the way to 85-90%, is attainable only when the foaming method or gas formation through chemical reactions is used.

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Estimation of the effectiveness of lightweight refractories is based on the fact that their low specific weight sharply reduces heat conductivity and heat capacity of the lining, its weight, reduces losses owing to radiation and accumulation of heat along the walls of the heat equipment, which affords fuel economies of up to 40-60% in periodically operating furnaces, and up to 15-20% in continuously operating furnaces. Accelerated heating and cooling of furnaces lined with lightweight refractories speed up their turnover, facilitate temperature control, reduce cost of construction, and lowers capital investments. Orig. art. has: 8 tables and 1 formula. JPRS

SUB CODE: 11, 13 / SUBM DATE: none / ORIG REF: 043 / OTH REF: 031

Card 3/3 20

ACC NR: AT6036926

SOURCE CODE: UR/0000/66/000/000/00/0/0053

AUTHORS: Poluboyarinov, D. N.; Guzman, I. Ya.

ORG: none

TITLE: Fundamentals of technology of porous refractory ceramics, its structure and properties

SOURCE: Nauchno-tehnicheskoye obshchestvo chernoy metallurgii. Moskovskoye pravleniye. Vysokoogneupornyye materialy (Highly refractory materials). Moscow, Izd-vo Metallurgiya, 1966, 40-53

TOPIC TAGS: porous foam ceramics, oxide ceramic, ceramic material, refractory product

ABSTRACT: Preparation of porous, highly refractory ceramic materials based on Al_2O_3 , BeO, ZrO_2 , MgO, SiO_2 , SiC, and $MgO \cdot 2Al_2O_3 \cdot SiO_2$ was studied. Structure and properties as well as the effect of various technological parameters upon the formation of these materials were investigated. To maintain the high purity of each oxide, the porosity was produced by either of two methods: 1) introduction and subsequent removal by roasting of low-ash organic compounds; 2) formation of gas bubbles in the wet phase by mechanical means. Petroleum coke with ash content $\sim 2\%$ was employed in the first case, and resin soap containing 1% of joiner's glue served to

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create a stable, fine foam with cells of 0.2--0.6 mm in the second case. A correlation was found between the structures of the produced porous ceramics and properties such as: volumetric mass, intrinsic porosity, coefficient of gaseous penetration, coefficient of thermal expansion, compressibility, number of thermal cycles, etc. Commercial and industrial applications of these materials are discussed. Orig. art. has: 4 tables.

SUB CODE: 11/ SUBM DATE: 02Nov65/ ORIG REF: 001

Card 2/2

ACC NR: AT6036930

SOURCE CODE: UR/0000/66/000/000/0082/0091

AUTHORS: Nishanova, I. Ye.; Popil'skiy, R. Ya.; Guzman, I. Ya.

ORG: none

TITLE: Manufacture of quartz glass articles by using methods employed in ceramics technology

SOURCE: Nauchno-tekhnicheskoye obshchestvo chernoy metallurgii. Moskovskoye pravleniye. Vysokoogneupornyye materialy (Highly refractory materials). Moscow, Izd-vo Metallurgiya, 1966, 82-91

TOPIC TAGS: quartz, glass, oxide ceramic, ceramic pressing, ceramic technology

ABSTRACT: The possibility of obtaining articles made of quartz glass by employing ceramic methods was investigated. The investigation is an extension of the work of I. Fleming (Am. Cer. Soc. Bull., 1961, 40, No. 12, 748--750). The initial material consisted of 99.44% SiO₂. The material was pulverized and had a specific surface area of 40 000 cm²/g. The specific surface area was determined after the method of D. S. Sominskiy and G. S. Khodakov (Nauchnyye soobshcheniya VNIINSMA; 1957, No. 29). The powder was compressed at a pressure of 800 kg/cm² and was fired at 1150--1350C. The porosity, shrinkage, density, and strength limit of the specimens were determined. The experimental results are summarized in graphs and tables

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(see Fig. 1). It was found that the quality of the specimens depended on the grain

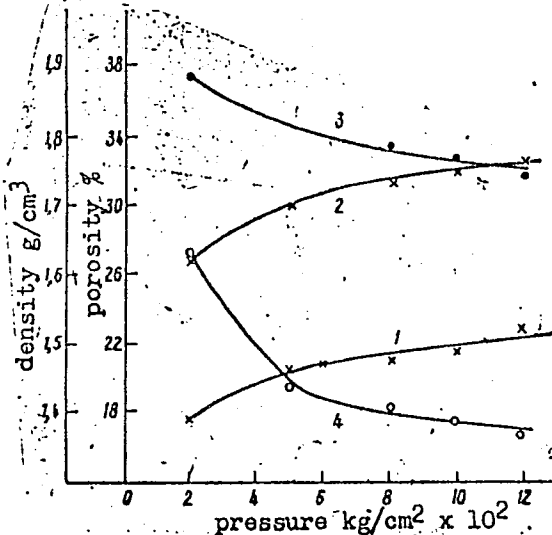


Fig. 1. Change in density of specimens as a function of the compression stress. 1 - density before firing; 2 - density after firing; 3 - porosity before firing; 4 - porosity after firing

size of the initial powder. Best results were obtained using very fine powders of micron diameters. It is concluded that quartz glass objects may be manufactured using ceramics technology methods. Orig. art. has: 5 tables and 2 graphs.

SUB CODE: 11, 13 SUBM DATE: 02Nov65/ ORIG REF: 007/ OTH REF: 007

Card 2/2

SOURCE CODE: UR/0000/66/000/000/0153/0158

ACC NR: AT6036937

AUTHORS: Guzman, I. Ya.; Pankratova, V. S.; Makarova, T. S.; Vinogradova, L. V.; Logacheva, N. S.

ORG: none

TITLE: The influence of some technological parameters on the manufacture and properties of cellular carborundum light-weight refractories

SOURCE: Nauchno-tekhnicheskoye obshchestvo chernoy metallurgii. Moskovskoye pravleniye. Vysokoogneupornyye materialy (Highly refractory materials). Moscow, Izd-vo Metallurgiya, 1966, 153-158

TOPIC TAGS: carborundum, silicon carbide, silicon, refractory product

ABSTRACT: A method for obtaining light-weight, cellular carborundum refractories made of β -SiC, Si_2ON_2 , and SiO_2 is described. This investigation supplements the results of I. Ya. Guzman and V. S. Morozova (Ogneupory, 1963, No. 12, 558). The method consists of the adding an intimate mixture of SiC + Si to an aqueous HCl solution and of subsequent firing in carbon-containing media in a CO + N₂ atmosphere. The effects of the silicon composition and grain size of the mixture, pH of suspension, and the firing temperature on the properties of the finished product were investigated. The experimental results are tabulated. It was found that the best results were

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obtained at pH 3--4, a moisture content of suspension of 40%, and an Si content of 40%. The optimum firing temperature was found to be 1300--1400C. On the basis of the above results, a pilot project for the manufacture of refractory bricks has been initiated at the Podolsk Refractories Plant. Orig. art. has: 5 tables.

SUB CODE: 11/

SUBM DATE: 02Nov65/

ORIG REF: 002

Card 2/2

ACC NR: AT6036936

SOURCE CODE: UR/0000/66/000/000/0142/0152

AUTHOR: Guzman, I. Ya.; Tumakova, Ye. I.

ORG: none

TITLE: Preparation and properties of carborundum refractory material with β -SiC binder

SOURCE: Nauchno-tekhnicheskoye obshchestvo chernoy metallurgii. Moskovskoye pravleniye. Vysokooгнеупорные материалы (Highly refractory materials). Moscow, Izd-vo Metallurgiya, 1966, 142-152

TOPIC TAGS: refractory product, corundum refractory, silicon carbide

ABSTRACT: A systematic study has been conducted at the Moscow Institute of Chemical Technology in. Mendeleev of the firing of green SiC-Si mixtures with a carbon-containing charge. The purpose of the study was to optimize the operating conditions of the preparation process of carborundum refractories with a β -SiC binder which was formed in the process. This refractory exhibited the highest characteristics. The β -SiC is formed, besides silicon oxynitride and cristobalite, by the reaction of Si with CO which is the product of thermal oxidation of the carbon-containing charge in the air. Composition of the starting mixture, particle size and purity of silicon, type of the carbonaceous charge, firing temperature, and compacting pressure were studied as the primary technological factors which may affect the firing process,

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ACC NR: AP6036936

APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000617720002-6"

and hence the ultimate properties of the product. In this respect, the composition of the binder which was formed at 1100—1500C by the reaction Si with the components of the gas phase was found to have a decisive importance. The weight change of the samples in the process of firing was the indicator of the progress of the reaction and of all properties of the product. The maximum weight gain (.70%) which was reached at 1300—1500C determined a total completion of the reaction. Density, hence compressive strength and all other properties of the material fired under the conditions of total completion, were shown to depend on the bulk density of the raw material and Si content in the charge. The maximum density of the granular refractory may be obtained with the most dense raw material and moderate Si content in the charge, but a high Si content is required to obtain the same result in refractories without a coarse grained filler. The use of a coarse-grained SiC and a highly dispersed Si powder was recommended for obtaining a dense raw material. Orig. art. has: 6 tables, 1 figure, and 4 formulas.

SUB CODE: 11/ SUBM DATE: 02Nov65/ ORIG REF: 004/ OTH REF: 002/ ATD PRESS: 5107

Card 2/2

ACC NR: AP7005512

(A)

SOURCE CODE: UR/0131/66/000/011/0033/0037

AUTHOR: Poluboyarinov, D. N.; Andrianov, N. T.; Guzman, I. Ya.; Lukin, Ye. S.

ORG: Moscow Chemico-Technological Institute im. D. I. Mendeleev (Moskovskiy khimiko-tekhnologicheskii institut)

TITLE: Evaporation of porous oxide ceramics at elevated temperatures

SOURCE: Ogneupory, no. 11, 1966, 33-37

TOPIC TAGS: oxide ceramic, porous foam, ceramic, refractory product, evaporation, porosity

ABSTRACT: The thermomechanical and thermophysical properties of refractory porous oxide ceramics have been previously investigated (Guzman, I. Ya. Zhurnal VKhO im. D. I. Mendeleeva, 1965, t. 10, no. 5, s. 571) but the suitability of these ceramics as heat insulating materials for equipment with a high vacuum or with a neutral gaseous medium is also limited by evaporation, on which no information has previously been available. To fill this gap, specimens of Al_2O_3 , ZrO_2 , BeO and MgO ceramics with typical values of porosity, prepared both by the foam method and by the method of burnout of additives, were tested for evaporation rate in

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UDC: 666.764

ACC NR: AP7005512

vacuum and in a helium atmosphere at 2073-2573°K by the method described by Lukin and Poluboyarinov (Ogneupory, 1964, no. 9, s. 418) for solid ceramics (since evaporation in porous bodies is difficult to determine, in this case conditional rate of evaporation, i.e. loss of weight per unit time per unit surface determined according to external dimensions of the specimen was used as the yardstick). Findings: given equal porosity, foam ceramics have a higher apparent porosity, a much lower gas permeability and smaller unit surface area than the ceramics prepared by the method of burnout of additives. The ratio K of effective surface area S_{eff} to total S_{total} , which also includes the surface area of isolated pores, represents the part of surface area of pores from which evaporation occurs: $K = S_{\text{eff}}/S_t$. In this connection, on the basis of the obtained findings and their comparison with data on the evaporation of solid sintered specimens, empirical equations are derived for calculating the evaporation of porous pure-oxide ceramics without resorting to intricate experiments. Thus the evaporation rate of a ceramic of any porosity can be determined from the relation $G = \Delta g/S_{\text{eff}}t$, where Δg is the weight loss of the specimen, g; S_{eff} is the effective surface area, cm^2 ; t is the time of evaporation, sec. The higher the porosity and hence also the higher S_{eff} is, the greater the weight loss Δg must be. A comparison of experimental and theoretical findings on specimens of

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ACC NR: AP7005512

varying porosity shows that K is constant for all types of ceramics and depends only on the method of their fabrication, which determines the nature of their structure. Orig. art. has: 2 figures, 3 tables.

SUB CODE: 11, 20/ SUBM DATE: none/ ORIG REF: 005

Card 3/3

GUZMAN 11/11

GENDIN, Viktor Yakovlevich; BESSER, Ya.P., nauchnyy red.; GUZMAN, M.A., red.;
GARNUKHINA, L.A., tekhn. red.

[Manufacturing reinforced concrete elements by vibration stamping]
Izgotovlenie zhelezobetonnykh izdelii vibroshtampovaniem. Moskva,
Gos. izd-vo lit-ry po stroit. materialam, 1957. 23 p. (MIRA 11:7)
(Precast concrete)

ROSENFEL'D, Iev Moyseyevich; KRZHEMINSKIY, S.A., nauchnyy red.; GUZMAN,
M.A., red.; GULENSON, P.G., tekhn. red.

[Autoclave foamed slag concrete] Avtoklavnyi penoshlakobeton.
Moskva, Gos. izd-vo lit-ry po stroit., arkhit. i stroit. ma-
terialam, 1958. 95 p. (MIRA 11:9)
(Lightweight concrete)

GUZMAN, M.A.

LEVI, Zh.P. [Levy, I.P.]; ELINZON, M.P., kand. tekhn. nauk, red. [translator];
YAKUB, I.A., kand. tekhn. nauk, red. [translator]; GUZMAN, M.A.,
red.; GILSON, P.G., tekhn. red.

[Light-weight concrete; manufacture, properties, uses] [Translated
from the French] Legkie betony; prigotovlenie - svoistva - primeneniye.
Red. M.P. Elinzona i I.A. Yakub. Moskva, Gos. izd-vo lit-ry po
stroit., arkhitekt. i stroit. materialam, 1958. 145 p. (MIRA 11:7)
(Lightweight concrete)

GUZMAN, M.A., red. izd-va; MOCHALINA, Z.S., tekhn. red.

[Over-all mechanization and automation of the quarrying and dressing of natural wall stone] Kompleksnaia mekhanizatsiia i avtomatizatsiia dobychi i obrabotki prirodnogo stenovogo kamnia. Moskva, Gos.izd-vo lit-ry po stroit., arkhit.i stroit. materialam, 1961. 117 p.

(MIRA 14:12)

1. Nauchno-tekhnicheskoye obshchestvo stroitel'noy industrii SSSR.
(Building stones)

GAK, B.N., kand.tekhn. nauk; GERVIDS, I.A., kand. tekhn. nauk; GONCHAR, P.D., inzh.; VASIL'KOV, S.G., kand. tekhn. nauk; YEVNEVICH, A.V., kand. tekhn.nauk; KIPTENKO, A.K., inzh.; LUNDINA, M.G., kand. tekhn.nauk; NAUMOV, M.M., kand. tekhn. nauk; PATRIK, S.A., inzh.; POPOV, L.N., kand. tekhn. nauk; ROGOVOY, M.I., inzh.; SEDOV, V.G., inzh.; SOKOLOV, Yu.B., inzh.; FRANCHUK, K.O., inzh.; KHAYKIN, V.Ya., inzh., nauchnyy red.; CHIBUNOVSKIY, N.G., inzh., nauchnyy red.; NOKHRATYAN, K.A., red. [deceased]; GUZMAN, M.A., red; GURVICH, E.A., red.; BOROVNEV, N.K., tekhn. red.

[Handbook on the production of structural ceramics]Spravochnik po proizvodstvu stroitel'noi keramiki. Moskva, Gosstroizdat. Vol.3.[Wall and roofing ceramics]Stenovaia i krovel'naia keramika. Pod red. M.M.Naumova i K.A.Nokhratiana. 1962. 699 p. (MIRA 16:1)

(Ceramics) (Building materials industry)

LIVSHITS, M.N.; IGNAPOVICH, I.I.; OLIVAN, M.A., Eds.

[New technology for preparing mixing materials and vitreous enamels] Novaya tekhnologiya izgotovleniya shikhtovykh materialov i steklovidnykh emalei. Moskva, Stroiizdat, 1964. 23 p. (MIRA 1749)

GUZMAN, P.A.; STAKHURSKIY, A.Ye., red.; OMILYANCHUK, S., red.izd-va;
LEBEDEV, O.S., tekhn.red.

[Electromagnetic automatic toys] Elektromagnitnye igrushki-avtomaty. Moskva, M-vo kul'tury RSFSR, Izd-vo "Detskii mir" 1960. 1 fol. (Prilozhenie k zhurnalu "Iunyi tekhnik," no.16(82)).
(MIRA 14:1)

1. Tsentral'naya stantsiya yunikh tekhnikov, Moscow.
(Electric toys)

GUZMAN, Z.I.

Prophylaxis of diseases in young farm animals. Veterinariia 39
no.5:37-39 My '62 (MIRA 18:1)

1. Zaveduyushchiy Klimovichskoy mezhrayonnoy veterinarno-bak-
teriologicheskoy laboratoriyey, Belorusskaya SSR.

GUZOV, A.F.

Tularemia in Parichi District. Zdrav.Belor. 5 no.6:9-11
Ja '59. (MIRA 12:9)

1. Zaveduyushchiy Shatilkovskim sel'skim vrachebno-bol'nichnym
uchastkom.

(PARICHI DISTRICT--TULAREMIA)

GUZOV, A. F. (Minsk)

Birth injury to the fetal spine (Survey of the literature). Arkh.
pat. no.2:12-19 '62. (MIRA 15:2)

1. Iz kafedry patologicheskoy anatomii (zav. - prof. Yu. V.
Gul'kevich) Minskogo meditsinskogo instituta (dir. - dotsent
A. A. Klyucharov)

(SPINE--WOUNDS AND INJURIES) (BIRTH INJURIES)

TRUBETSKOV, L., kand.tekhn.nauk; GUZOV, E., inzh.

Remote control of electric locomotives. Radio no.2:27 F '63.
(MIRA 16:2)

(Remote control)

(Electric locomotives)

TRUBETSKOV, L.V.; GUZOV, E.S.

Introduction of apparatus for the remote control of electric
locomotives at loading points in Gigant Mine. Sbor. nauch. trud.
KGRI no.19:62-65 '62. (MIRA 16:5)

(Krivoy Rog Basin--Mine railroads) (Remote control)

IL'IN, Anatoliy Afanas'yevich; PELIPENKO, Viktor Nikolayevich; SHULIN,
N.I., retsenzent; GUZOV, E.S., retsenzent; BYKHOVSKIY, Ya.L., otv.
red.

[Dispatcher communication using the contact network in
mines] Dispetcherskaia sviaz' po kontaktnoi seti rudnikov.
Moskva, Nedra, 1964. 163 p. (MIRA 18:3)

L 05371-57 EWT(m)/EWP(t) ~~EWL~~/EWR(k) IJP(c) JD

ACC NR: AP6027487 (A) SOURCE CODE: UR/0418/66/000/003/0044/0045

AUTHOR: Lebedev, B. D. (Candidate of technical sciences); Guzov, P. D. (Engineer)

ORG: None

TITLE: Cooling acid-resistant stainless steel with an atomized emulsion during machining

SOURCE: Tekhnologiya i organizatsiya proizvodstva, no. 3, 1966, 44-45

TOPIC TAGS: cooling, atomization, metal machining, temperature control, emulsion

ABSTRACT: The authors describe a study carried out at the cutting laboratory of the Dnepropetrovsk Plant of Metallurgical Equipment and the Department of Metal Technology of DKhTI on cooling steel with atomized liquid during machining. The cutting zone is cooled with an atomizer developed at the Scientific Research Laboratory of Machine Tool Building and Cutting Instruments at the Gor'kiy Polytechnical Institute. The temperature field of the cutting zone was studied under laboratory conditions and it was determined that the minimum temperature of the jet is 5 mm from the nozzle and decreases insignificantly as pressure is increased from 2 to 5 atm. The lowest temperature of the jet was observed at a flow rate of 830 g/hr. The distance between the atomizer nozzle and the cutting zone was always set at minimum. Optimum air pressure and flow rate were determined at 2-3 atm and 300-800 g/hr respectively. The results

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UDC: 621.90+532.695:669.14.018.84

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ACC NR: AP6027487

show that atomized fluid cooling improves cutting tool stability in all aspects of machining. The use of this method in machine shops shows that surface finish is improved, particularly in the case of 1Kh18N9T acid-resistant stainless steel. Examples are given showing the effect of atomized liquid cooling on various types of machining, tools and materials.

SUB CODE: 13/ SUBM DATE: None

Card 2/2 *beh*

GUZOV, L. A.

"Static and Dynamic Calculation of the Boom of the Walking Excavator ESh-4/40."
Cand Tech Sci, Dnepropetrovsk Order of Labor Red Banner Metallurgical Institute
Stalin, Min Higher Education USSR, Dnepropetrovsk, 1954. (KL, No 3, Jan 55)

Survey of Scientific and Technical Dissertations Defended at USSR Higher
Educational Institutions (12)
SO: Sum. No. 556, 24 Jun 55

GUZOV, M.Z.

Calculation of seepage in earthen dams having plastic cores.
Dop. AN URSR no. 6:425-428 '53. (MLRA 7:1)

1. Kiiv's'kiy gidromeliorativniy institut. Predstaviv diysniy chlen
Akademii nauk Ukrain's'koi RSR O. Yu. Ishlins'kiy.
(Dams) (Soil percolation)

G LIZOV, M. Z.

✓ 3130. Guzov, M. Z., Computation of seepage through earth dam with an apron and a cutoff (in Russian), *Gidrotekh. Stroit.* 22, 19, 31-32, 1953.

Mesh

Apron is an inclined core resting on upstream face; it is continued by a vertical cutoff extending up to the impervious base. Author wishes to simplify for: uza [Ugindus, Moscow, 1940] involving cubic equation for intercept of seepage line with apron in case of full reservoir. Body of dam is homogeneous; apron is as thick and as permeable as cutoff. He equates amount of seepage across apron plus cutoff to that through body of dam. He gets formula for intercept of extended seepage line with vertical through cutoff. Equation for seepage line is of the form $y = (a + bx)^{1/2}$.

Reviewer finds treatment simple and much idealized as compared to cases met in practice.

G. H. Beguin, Switzerland

SOV/124-58-4-4326

Translation from: Referativnyy zhurnal, Mekhanika, 1958, Nr 4, p 91 (USSR)

AUTHOR: Guzov, M. Z.

TITLE: Calculation of the Seepage Through Earth Dams With Consideration of the Permeability of the Facing and the Upstream Apron
(Fil'tratsionnyy raschet zemlyanykh plotin s uchetom vodopronitsaemosti ekrana i porura)

PERIODICAL: Tr. Kiyevsk. gidromelior. inst-a, 1956, Nr 6, pp 115-118

ABSTRACT: The article gives a comparatively simple hydraulic method of seepage calculations through earth dams having permeable upstream aprons and facings. By separate determination of the seepage quantities passing through the upstream apron, the facing, and the permeable foundation, and by equating the sum of these quantities to the amount of seepage passing under the dam as determined from Dupuy's formula, the author obtains a quadratic equation involving the magnitude of the head under the end of the apron. Thereupon, the author receives a simple expression for the equation of the line of seepage which includes the abovementioned quantity. This calculation method is simpler than the other known methods for the seepage through similar

Card 1/2

SOV/124-58-4-4326

Calculation of the Seepage Through Earth Dams With Consideration (cont.)

structures. The reviewer notes that in his evaluation of the accuracy of his method the author uses experimental data from the Akulovo dam (Shankin, P.A., Calculation of the Seepage in Earth Dams, Moscow, Izd-vo M-va rechn. flota, 1947) and claims that his method gives the closest results as compared with measurements (error: 2.5%) while affording a considerable simplicity. However, in the work of the reviewer [A. A. Uginchus, Raschet fil'tratsii cherez zemlyanyye plotiny. (The Calculation of Seepage Through Earth Dams), Leningrad-Moscow, Stroyizdat, 1940] it was stated that the model of Akulovo dam had a partial cut-off wall 5.0 m deep; with the thickness of the permeable foundation layer of 13.0 m, this is an essential factor in the additional reduction of the head. Therefore, the theoretical methods should produce a certain overestimation of the ordinates when compared to the actual values obtained in presence of the additional resistance caused by the cut-off wall. Accordingly, the author's method, giving a 2.5% smaller ordinate, is not sufficiently accurate. However, its comparative simplicity is an asset. The reviewer also notes that the author has adopted from P. A. Shankin's work Table 1 which contains results of incorrect calculations. Bibliography: 7 references.

1. Dams--Physical properties
2. Water--Penetration
3. Mathematics

A. A. Uginchus

Card 2/2

PISHKIN, B.A. [Pyshkin, B.A.], otv.red.; ARISTOVSKIY, V.V. [Aristova'kyi, V.V.], doktor tekhn.nauk, red.; GUZOV, M.Z. [Huzov, M.Z.], kand.tekhn.nauk, red.; ZAGUMENNIY, O.G. [Zahumennyi, O.H.], red.; PECHKOVSKAYA, O.M. [Pischkova's'ka, O.M.], red.izd-va; MIL'OKHIN, I.D., tekhn.red.

[Calculation of seepage through hydraulic structures; collection of scientific works] Fil'tratsiini rozrakhunky gidrotekhnichnykh sporud; zbirnyk naukovykh prats'. Kyiv, 1959. 161 p.

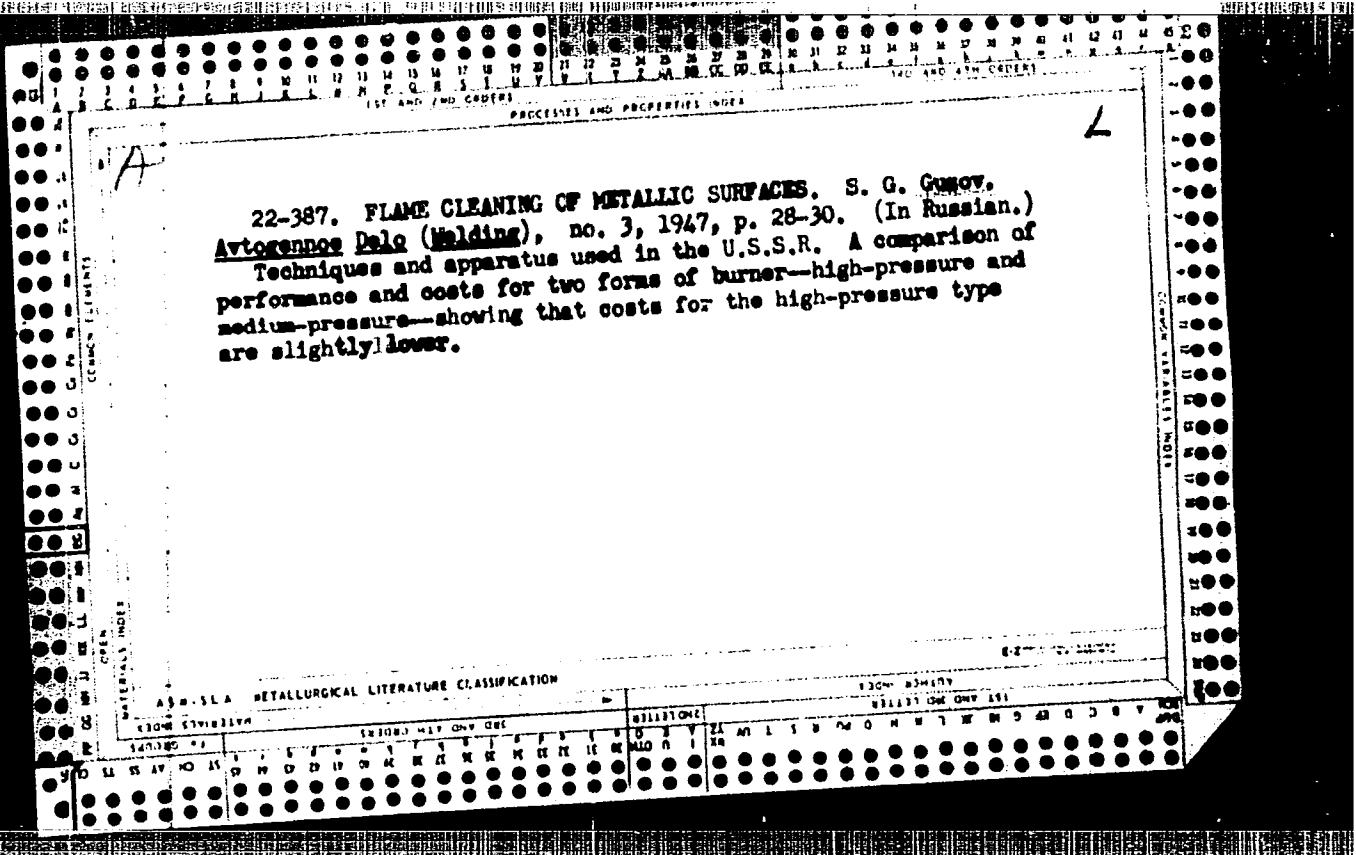
(MIRA 13:2)

1. Akademiia nauk URSR, Kiev. Rada po vyvchenniu produktyvnykh syl URSR. 2. Chlen-korespondent AN URSR, golova Komisiï po problemi kompleksnogo vikoristannya vodnikh resursiv URSR RPS AN URSR (for Pishkin).

(Hydraulic engineering--Tables, calculations, etc.)

GUZMAN, Petr Abramovich; KUZNETSOV, V.I., prof., doktor tekhn.nauk, red.;
VERTINSKIY, N.S., red.; SAVCHENKO, Ye.V., tekhn.red.

[In the world of Soviet science and technology; through the halls
of the Polytechnical Museum. Metallurgy, chemistry, and fuel]
V mire sovetskoi nauki i tekhniki; po zalam Politekhnicheskogo
muzeia. Metallurgiya, khimiya, toplivo. Pod red. V.I.Kuznetsova.
Moskva, Izd-vo "Znanie," 1960. 42 p. (MIRA 14:1)
(Metallurgy) (Chemistry)



GUZOV, S. G.

PA 20/49T43

USSR/Engineering
Pipe Lines
Welding, Equipment

Sep 48

"High-Pressure Acetylene Pipes," S. G. Guzov, Engr,
I. I. Strizhevskiy, Cand Chem Sci, All-Union Sci Res
Inst of Autogenous Welding, 3½ pp

"Avtogennoye Delo" No 9

Many acetylene generators working under pressure of
1.5 ats have recently been produced. This article
is published in interest of accident prevention.
Treats subject under: (1) acetylene explosions and
their causes, (2) detonation, (3) catalysts, (4)
copper acetylenide, (5) formation of crystallohydrates
and (6) conclusions.

20/49T43

ГУЛОВ, С. Г.

OXYGEN-FLUX CUTTING OF HIGH-CHROMIUM STEEL. S.G. Gulyov.
(Avtogenesis Delo, 1949, No. 13, pp. 24-25). (In Russian).
A very brief account is given of the method of cutting
high-chromium steel with injection of finely divided iron-
rich flux into the gas stream for the removal of the refractory
chromium oxide produced by the oxidation of the steel.

Immediate source clipping

GUZOV, S. G.

SR 50/49T32

USSR/Engineering
Cutting

May 49

"A New Powerful Torch for Surface Cutting," S. G. Guzov, Enggr, 2 pp

--"AvtoGen Delo" No 5

Torch RVP-49 for surface oxygenous cutting is superior to other models in having: larger stream of oxygen and greater cutting ability, greater overall length and larger nozzles permitting steadier control by the operator who is consequently farther from the flame, increased economy in using a "starting rod" for preheating, and maneuverability

50/49T32

USSR/Engineering

(Contd)

May 49

retained, despite increased weight of the torch, by placing fireproof steel wheels on the nozzles. Diagrams and performance chart.

50/49T32

GUZOV, S. G.

27766. SLETSKAYA, T. M. -- Khrupkost' zony tavnich skogo vliyaniya pri svarke malouglerodistoy stali. trudy po avtomat. svarke pod flyusom (in-t elektrosvarki im. patona), s. 7, 1949 S. 3-12
--onovom standarte na rastvorenyy atsetilem--
Sm. 27769.

So: Letopis' Zhurnal'nykh Statey Vol. 37, 1949.