GASHIMZALE, F.M.; KESAMANLY, F.P.

Investigating the dependence of the electronic effective mass in n-InAs on the concentration of current carriers. Fiz.tver.tela 3 no.4:1255-1257 Ap '61. (MIRA 14:4)

1. Fiziko-tekhnicheskiy institut imeni akademika A.F.Ioffe AN SSSR, Leningrad i Institut fiziki AN Azerbaydzhanskoy SSR, Baku.
(Indium arsenide—Electric properties)

3424

S/181/62/004/002/039/051
B102/B138

24.7600 (1035, 1043, 1164)

AUTHORS: Yemel'yanenko, O. V., Kesamanly, F. P., and Nasledov, D. N.

TITLE: Thermomagnetic Nernst-Ettingshausen effects in degenerate indium antimonide

PERIODICAL: Fizika tverdogo tela, v. 4, no. 2, 1962, 546-548

TEXT: The temperature dependence of the longitudinal and the transverse Nernst-Ettingshausen effects was investigated in weakly and strongly degenerate InSb single crystals in the range 100 - 600°K. In+Sb were mixed in stoichiometric ratio, melted and doped with Se; the Czochralski method was used to grow electrically homogeneous single crystals with an electron concentration of 10^{16} - 10^{19} cm^{-3}. The crystals measured had the following characteristic parameters at room temperature:

X

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number of specimen	17n	13n	7n
electron concentration	$4 \cdot 10^{16}$	$3 \cdot 10^{17}$	$6 \cdot 10^{18}$ cm^{-3}
mobility	60,000	40,000	6000 cm^2/v.sec
degeneracy	0	+4	+14
linearity of N-E effects up to	800	1500	10,000 oe
measurement of temperature dependence of N-E effects	600	1000	4000 oe

13n and 7n had impurity conductivity, 17n - mixed conductivity. Since the hole mobility and the role of the holes in the thermomagnetic effects was much smaller than that of the electrons, the theory of pure impurity conductivity was applicable for all specimens. The results show that for InSb, as for InAs, at higher temperatures the electrons are mainly

Card 2/3

scattered from acoustic lattice vibrations (q^1, q^{11})0). Lattice scattering increases with the degree of degeneracy. There are 2 figures and 9 references: 7 Soviet-bloc and 2 non-Soviet bloc. The reference to the English-language publication reads as follows: H. Ehrenreich. J. Phys. Chem. Sol. 2, 131, 1957.

ASSOCIATION: Fiziko-tekhnicheskiy institut im. A. F. Ioffe AN SSSR Leningrad (Physicotechnical Institute imeni A. F. Ioffe AS USSR, Leningrad). Institut fiziki AN Az. SSR Baku (Institute of Physics AS Azerbaydzhanskaya SSR, Baku)

SUBMITTED: September 13, 1961

Fig. 1. Temperature dependence of Q^1 for 17n (1), 13n (2) and 7n (3).

Fig. 2. Temperature dependence of Q^{11} for 17n (1), 13n (2), and 7n (3). Q^1 and Q^{11} given in CGSM units.

Card 3/3

Report presented at the 3rd National Conference on Semiconductor Compounds, Kishinev, 16-21 Sept 1963

-2-

2. Electrical properties of highly degenerate crystals of n- and p-type gallium arsenide. O. V. Yemel'yanenko, F. P. Kesamanly, D. N. Nasledov, V. G. Sidorov, G. N. Talalakin.

Concerning the interaction of electrons with lattice vibrations in gallium arsenide. O. V. Yemel'yanenko, T. S. Lagunova, D. N. Nasledov, V. Ye. Shcherbatov.

Electrical properties of gallium arsenide with different impurities. D. N. Nasledov, G. N. Talalakin.

Investigation of the properties of impurity zones in crystals of p-type gallium arsenide. O. V. Yemel'yanenko, T. S. Lagunova, D. N. Nasledov, V. Ye. Shcherbatov.

Galvanomagnetic properties of indium arsenide in a wide temperature range. Yu. M. Burdukov, I. V. Zatova, T. S. Lagunova, D. N. Nasledov.

Nernst effect in n-type indium phosphide.
F. P. Kesamanly, E. E. Klotin'.
(Presented by O. V. Yemel'yanenko--25 minutes).

Physico-chemical properties and structure of monocrystalline samples of $ZnSiAs_2$. A. A. Vaypolin, N. A. Goryunova, E. O. Osmanov.

Investigation of macrocrystalline $ZnSiP_2$. N. A. Goryunova, A. A. Vaypolin, Yu. V. Rud'.

Some properties and zone structure of the ternary compound $CdGeAs_2$. F. M. Gashimzade, N. A. Goryunova, E. O. Osmanov.

Electrical properties of monocrystalline samples of $ZnSnAs_2$. N. A. Goryunova, F. P. Kesamanly, D. N. Nasledov, Yu. V. Rud'.

Investigation of properties of $ZnGeP_2$ and $CdGeP_2$. N. A. Goryunova, N. K. Takhtareva, I. I. Tychina.

On the question of the existence of homogeneous many-component tetrahedral phases. G. K. Aberkiyeva, A. A. Vaynolin, N. A. Goryunova.

X-Ray investigation of certain compounds of the type $A^{II}B^{IV}C_2^{VI}$. A. A. Vaynolin, E. O. Osmanov, Yu. V. Rud', I. I. Tychina, A. F. Lindin, N. A. Goryunova, A. F. Tyevin'sh.

L 02229-67 EWT(l)/EWT(m)/EWP(w)/T/EWP(t)/ETI IJP(c) JD

ACC NR: AR6013672 SOURCE CODE: UR/0058/65/000/010/E070/E070

AUTHOR: Kesemanly, F. P.; Nasledov, D. N.; Rud', Yu. V. 71

TITLE: Transport effects on p-type $ZnGeAs_2$ crystals 8

SOURCE: Ref. zh. Fizika, Abs. 10E569

REF SOURCE: Sb. Fizika. Dokl. k XXIII Nauchn. konferentsii Leningr. inzh.-stroit. in-ta. L., 1965, 51-52

TOPIC TAGS: electric conductivity, Hall coefficient, thermal emf, temperature dependence, transport property, carrier scattering, transport effect, crystal lattice vibration

ABSTRACT: The authors measured the temperature dependence of the electric conductivity (σ), the Hall constant, the differential thermal emf (α), and the transverse Nernst-Ettingshausen effect (χ) of $ZnGeAs_2$ in the temperature interval 100-550K. The character of the temperature dependence of all the transport effects is the same as for p-$ZnSnAs_2$. It was found that σ and α increase with the temperature, $\chi < 0$ in the entire temperature interval, and that the Hall mobility increases like $\sim T^{0.5}$ up to 400K, after which it decreases. At low temperatures the scattering is by the impurity ions, and with increasing temperature, also by the lattice vibrations. [Translation of abstract]

SUB CODE: 20

Card 1/1

KESERU, J.

KOVACS, Istvan; TASNADI, Emil; KESERU, Janos

Calling for the registration for the innovators' and inventors' show at the 1962 National Agricultural Exhibition. Ujit lap 14 no.3:8 F '62.

1. Mezogazdasagi es Erdeszeti Dolgozok Szakszervezetenek fotitkara (for Kovacs). 2. Orszagos Talalmanyi Hivatal elnoke, es "Ujitok Lapja" foszerkesztoje (for Tasnadi) 3. Foldmuvelesugyi miniszterhelyettes (for Keseru).

SURNAME, Given Names KESETHELYI, L.

(1)

Country: Hungary

Academic Degrees: [illegible]

Affiliation: [illegible] Institute of Physics (Fizikai Intezet), Budapest

Source: Budapest, Magyar Fizikai Folyoirat, Vol [illegible], No 4, 1961, pp 289-326

Data: "The Mossbauer Effect and its Applications"

GPO 981643

KESHE, G.

Apparatus for collection of menstrual blood. Akush. i gin. 36 no.2:124-125 Mr-Ap '60. (MIRA 13:12)
(GYNECOLOGY—EQUIPMENT AND SUPPLIES) (MENSTRUATION)

KESHELASHVILI, Sh. A.

Country : USSR
CATEGORY :

M-8

ABS. JOUR. : RZBiol., No. 19, 1958, No. 87207

AUTHOR : Keshelashvili, Sh. A.
INST. : Georgian Agricultural Institute
TITLE : Development of Soil Cultivation Methods in Bearing Apple Plantings of Mukhranskaya Valley.
ORIG. PUB. : Tr. Gruz. s.-kh. in-ta, 1957, 44, 211-235

ABSTRACT : Mukhranskaya valley in the Mtskhetskiy Rayon is characterized by a continental climate and carbonate soil of heavy mechanical composition. Studies in 1951-1954 have shown that addition of river sand (300 tons/hectare) to a depth of 0-30 cm, with a background of organic (30 tons/hectare of manure) and mineral (N120P120K60) fertilizers has greatly improved soil aeration, conditions of nutrition, and has increased productivity of fruit trees by 29%. The content of nitrates in the soil has increased appreciably. Sowing of alfalfa together with ryegrass, and application at the same time of N120P120K60 caused on the second year a decrease in moisture content, content of nitrates in the soil, and decreased crop yields. Planting

CARD: 1/2

KESHELASHVILI. Sh. A. Cand Agr Sci -- (diss) "The establishment of the effectiveness of certain agricultural measures in fruit-bearing apple orchards for the purpose of obtaining high and steady yields under conditions of the Mukhranskaya Valley." Tbilisi, 1958. 27 pp; 2 sheets of tables (Min of Agriculture USSR. Georgian Order of Labor Red Banner Agr Inst), 100 copies. (KL, 13-58, 99)

KESHELAVA, B.F.; LOMIDZE, N.M.

Investigating the physichomechanical properties of cellular concrete on a base of Adzhameti spongolite. Trudy Inst. stroi.mekh. i seism. AN Gruz. SSR 9:89-92 '63. (MIRA 17:12)

KESHEVA, A.T.

Causes of winter wheat failure in the Kabardino-Balkar A. S. S. R. Nauch. dokl. vys. shkoly; biol. nauki no.1:206-209 '62. (MIRA 15:3)

1. Rekomendovana kafedroy zemledeliya Moskovskogo gosudarstvennogo universiteta im. M.V. Lomonosova.
(KABARDINO-BALKAR A. S. S. R.--WHEAT)

KESHEVA, A.T.; MAKAROV, V.T., doktor, prof., rukovoditel' raboty

Some means of improving the yield of winter wheat in the Kabardino-Balkar A.S.S.R. Uch. zap. Kab.-Balk. gos. un. no.12: 121-129 '62. (MIRA 16:6)

(Kabardino-Balkar A.S.S.R.—Wheat)

KEGHICHEVA, A. A.

Duodenum - Surgery

Resection in a case of retroperitoneal duodenal rupture. Uch. zap. Vt. mosk. med. inst. 2, 1951.

9. Monthly List of Russian Accessions, Library of Congress, April 1953, Uncl.

VISHNEVSKIY, A.A.' professor, predsedatel'; CHISTOVA, M.A., sekretar'; KEKHI-SHEVA, A.A.; KRICHEVSKIY, A.a., kandidat meditsinskikh nauk; UTESHEV, S.S., kandidat meditsinskikh nauk; BEGEL'MAN, A.A., kandidat meditsinskikh nauk; YELANSKIY, N.N.; ZATSEPIN, T.S. professor; PLOTKIN, F.M., professor; PATSIORA, M.D.; KAZANSKIY, V.I., professor; TROYAN, I.V.; FEDOROV, I.P.; FILIPPOV, A.V.; UTESHEV, S.S.; DOROFEYEV, V.I.

Minutes of the session of the Surgical Society of Moscow and Moscow Province of September 26, 1952. Khirurgiia no.3:92-95 Mr '53. (MLRA 6:6)

1. Khirurgicheskoye obshchestvo Moskvy i Moskovskoy oblasti. 2. Fakul'tetskaya khirurgicheskaya klinika sanitarno-gigiyenicheskogo fakul'teta I Moskovskogo ordena Lenina meditsinskogo instituta (for Krichevskiy).
(Heart--Surgery) (Arteries--Diseases)

KESHISHEVA, A A.

Summaries of papers presented at the XXVI Congress of Surgeons of the USSR, Moscow, 20 - 27 January 1955, included:

Some Problems of Surgical Treatment of Congenital Cardiac Lesions and Main Blood Vessels.

A. A. KESHISHEVA

SOURCE: [redacted]-A-46013 (Official Publication) Unclassified.

KESHISHEVA, A.A., dotsent; CHUPHUNOVA, L.N.

Complications of gastroenterostomy. Khirurgiia no.7:55-57 Jl '55. (MLRA 8:12)

1. Iz fakul'tetskoy khirurgicheskoy kliniki (dir.-chlen-korrespondent AMN SSSR prof. B.V.Petrovskiy) II Moskovskogo meditsinskogo instituta imeni I.V.Stalina.
(STOMACH, surg.
gastroenterostomy, compl.)
(INTESTINES, surg.
same)

KESHISHEVA, A.A. (Moskva, Khovsko-Shabelovskiy per., d. 20/1, kv. 37-a)

Prevention of spinal paralysis in aortic surgery. Vest.khir. 75 no.3:66-72 Ap '55. (MLRA 8:7)

1. Iz kliniki fakul'tetskoy khirurgii (zav.-prof. B.V.Petrovskiy) 2-go Moskovskogo gosudarstvennogo meditsinskogo instituta im. I.V. Stalina.

(AORTA, surgery,
prev. of spinal paralysis)
(PARALYSIS,
spinal, prev. in aortic surg.)
(NERVES, SPINAL, paralysis,
prev. in aortic surg.)

KESHISHEVA, A. A., dotsent

Gastric tetany as a complication of peptic ulcer. Sov. med. 20 no.4:18-21 Ap '56. (MLRA 9:6)

1. Iz kliniki fakul'tetskoy khirurgii (direktor chlen-korrespondent Akademii meditsinskikh nauk SSSR professor B. V. Petrovskiy) II Moskovskogo meditsinskogo instituta imeni I. V. Stalina.

(PEPTIC ULCER, complications,
tetany, gastric (Rus))
(TETANY,
gastric, in peptic ulcer (Rus))

PETROVSKIY, B.V.; KESHISHEVA, A.A., dotsent

Diagnosis and surgical treatment of patent ductus arteriosus. [with summary in English, p. 148] Khirurgiia, 33 no.1:6-15 Ja '57 (MLRA 10:4)

1. Iz kafedry fakul'tetskoy khirurgii (zav.-prof. B.V. Petrovskiy) II Moskovskogo gosudarstvennogo meditsinskogo instituta imeni I.V. Stalina. 2.Chlen-korrespondent AMN SSSR. (for Petrovskiy)
(DUCTUS ARTERIOSUS, PATENT
diag. & surg. (Rus)

KESHISHEVA, A.A., dotsent

Pulmonary hypertension in patent ductus arteriosus [with summary in English]. Khirurgiia 33 no.4:21-31 Ap '57. (MLRA 10:7)

1. Iz kliniki fakul'tetskoy khirurgii (zav. kafedroy - chlen-korrespondent AMN SSSR prof. B.V.Petrovskiy) II Moskovskogo gosudarstvennogo meditsinskogo instituta imeni I.V.Stalina.

(DUCTUS ARTERIOUS, PATENT, compl.
pulm. hypertension)
(HYPERTENSION, etiol. and pathogen.
pulm., in patent ductus arteriosus)

T

Country : USSR
Category: Human and Animal Physiology. Circulation. Heart

Abs Jour: RZhBiol., No 19, 1958, 88794

Author : Keshisheva, A.A.; Malinovskiy, N.N.; Vantsyan, E.N.

Inst : -

Title : Photomanometry of Intracardiac Pressure in Diagnosis of Congenital Cardiac Defects

Orig Pub: Klinich. meditsina, 1957, 35, No 1, 54-57

Abstract: With the aid of the oil-membrane photomanometer of Robitchek and Getz, the intracardiac and intravascular pressure was measured in cases of patent ductus arteriosus, tetralogy of Fallot and also in mitral defects. The diagnostic value of this method was evaluated. -- A.S. Loginov

Card : 1/1

T-37

KESHISHEVA, A. A. Doc Med Sci -- (diss) "Patent ductus arteriosis (Clinical experimental study)," Mos, 1958. 20 pp (2nd Mos State Med Inst im N. I. Pirogov), 200 copies (KL, 14-58, 116)

KEKHISHEVA, A.A., dotsent (Perovo, Moskovskoy obl., Myusinovskaya ul. d.53/12, kv. 110); MALINOVSKIY, N.N., kand. med. nauk

A method for aortography. Vest. khir. 82 no.5:63-69 My '59. (MIRA 12:7)

1. Iz fakul'tetskoy khirurgicheskoy kliniki (zav. - prof. B. V. Petrovskiy) 2-go Moskovskogo meditsinskogo instituta im. N.I. Pirogova.
(AORTA--RADIOGRAPHY)

KEBSHISHEVA, A.A., doktor med.nauk; BURGASOVA, V.A., kand.med.nauk

Clinical aspects and diagnosis of patent ductus arteriosus in childhood and youth. Vop.okh.mat.i det. 5 no.4:14-20 Jl-Ag '60. (MIRA 13:7)

1. Iz kafedry fakul'tetskoy khirurgii (zav. - prof. A.A. Busalov) i kafedry detskikh bolezney (zav. - prof. M.M. Bubnova) II Moskovskogo meditsinskogo instituta imeni N.I. Pirogova. (dir. - dotsent M.G. Sirotkina).

(DUCTUS ARTERIOSUS)

KESHISHEVA, A.A. (Moskva, Lyusinovskaya ul.,d.53/12,kv.110)

Experimental patent ductus arteriosus. Grud. khir. 1 no.4:18-25 Jl-Ag '59. (MIRA 15:3)

1. Iz kafedry fakul'tetskoy khirurgii (zav. - prof. B.V. Petrovskiy) pediatricheskogo fakul'teta II Moskovskogo meditsinskogo instituta imeni N.I. Pirogova (dir. - dotsent M.G. Sirotkina).
(DUCTUS ARTERIOSUS)

KESHISHEVA, A.A. (Moskva, Lyusinovskaya ul.,d.53/12,kv.110)

Aortography for the diagnosis of patent ductus arteriosus. Grud. khir. 2 no.5:38-42 S-O '60. (MIRA 16:5)

1. Iz kliniki fakul'tetskoy khirurgii (zav. - prof. A.A.Busalov) II Moskovskogo meditsinskogo instituta imeni N.I.Pirogova.
(DUCTUC ARTERIOSUS) (AORTA--RADIOGRAPHY)

KESHISHEVA, A.A., doktor med.nauk (Moskva, Lyusinovskaya, d.53/12, kv.110)

Some complications after surgical treatment of patent ductus arteriosus. Vest.khir. no.6:44-48 '61. (MIRA 15:1)

1. Iz fakul'tetskoy khirurgicheskoy kliniki (zav. - prof. A.A. Busalov) pediatricheskogo fakul'teta 2-go Moskovskogo meditsinskogo instituta im. N.I. Pirogova.

(DUCTUS ARTERIOSUS--SURGERY)

KESHISHEVA, A. A.; LYUBSKIY, A. S.; UVAROV, V. V.

Intravital coronarography. Eksper. khir. no.3:25-30 '62.
(MIRA 15:7)

1. Iz torakal'nogo khirurgicheskogo otdeleniya (zav. - doktor meditsinskikh nauk A. A. Keshisheva) TSentral'noy klinicheskoy bol'nitsy (glavnyy vrach A. I. Khrimlyan) 4-go Glavnogo upravleniya (nach. - prof. A. M. Markov, glavnyy khirurg - deystvitel'nyy chlen AMN SSSR prof. B. V. Petrovskiy) Ministerstva zdravookhraneniya SSSR.

(CORONARY VESSELS—RADIOGRAPHY) (ANGIOGRAPHY)

KESHISHEVA, A. A. (Moskva, Lyusinovskaya ul., d. 53/12, kv. 110)

Diagnosis and treatment of neoplasms of the thymus gland. Grud. khir. 4 no.3:118-121 My-Je '62. (MIRA 15:7)

1. Iz kafedry fakul'tetskoy khirurgii (zav. - prof. A. A. Busalov) pediatricheskogo fakul'teta II Moskovskogo meditsinskogo instituta imeni N. I. Pirogova.

(THYMUS GLAND—TUMORS)

PETROVSKIY, Boris Vasil'yevich, prof.; KESHISHEVA, Anzhelina Aramovna. Prinimal uchastiye ZARGARLI, F.I.; MALINOVSKIY, N.N., red.; MATVEYEVA, M.M., tekhn. red.; CHULKOV, I.F., tekhn. red.

[Surgical treatment of patent ductus arteriosus] Khirurgicheskoe lechenie otkrytogo arterial'nogo protoka. Moskva, Medgiz, 1963. 249 p. (MIRA 16:12)

1. Deystvitel'nyy chlen AMN SSSR (for Petrovskiy).
(DUCTUS ARTERIOSUS—SURGERY)

KESHISHYAN, A. P.

A. G. Podrez and his importance in the development of Russian urology. Urologiia no.3:3-5 '61. (MIRA 14:12)

1. Iz fakul'tetskoy khirurgicheskoy kliniki (zav. - prof. A. Z. TSeytlin) Khar'kovskogo meditsinskogo instituta.

(UROLOGY)
(PODREZ, APOLLINARII GRIGOR'EVICH, 1852-1900)

ANDREYEVA, I.V.; KESHISHYAN, G.O.; ANDREYEV, P.F.; DANILOV, L.T.

Processes and products of the reaction of macromolecular compounds with inorganic salts. Part 4: Reaction of aqueous solutions of polyacrolein with tannin and gelatin in salt solutions. Radiokhimiia 6 no.4:491-493 '64. (MIRA 18:4)

ANDREYEV, P.F.; DANILOV, L.T.; KESHISHYAN, G.O.

Using complex-forming chromatography for the concentration of microquantities of lead and other metals from solutions. Zhur. prikl.khim. 34 no.11:2419-2426 N '61. (MIRA 15:1)
(Trace elements) (Chromatography)

L 13482-66

ACC NR: AP6002221 (N) SOURCE CODE: UR/0080/65/038/012/2842/2844

AUTHOR: Keshishyan, G. O.; Andreyev, P. F.; Danilov, L. T.

ORG: none

TITLE: Extraction of thorium from dilute solutions by means of tannate of gelatin

SOURCE: Zhurnal prikladnoy khimii, v. 38, no. 12, 1965, 2842-2844

TOPIC TAGS: thorium, tanning material, nonferrous metal, gel, sea water, acid base equilibrium, aqueous solution, chemical precipitation

ABSTRACT: A method is presented for extraction of thorium from highly diluted aqueous solutions containing $CaCl_2$, Na_2SO_4, and NaCl. The object of the work was to examine feasibility of extracting thorium from sea water. Edible gelatin and imported DAB-6 tannin were used as extraction agents. Thorium was percipitated from solutions containing 100-200 micrograms of Th^{232} and some radioactive Th^{234} per 500 ml of starting solution, using 5 ml of 1% solution of DAB-6 tanning and gelatin. Thorium removal from a solution containing various neutral salts is shown in fig. 1. Thorium removal from simulated sea water is shown in fig. 2.

UDC: 546.841

Card 1/2

L 13402-66

ACC NR: AP6002221

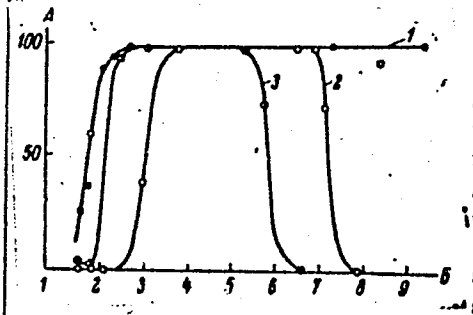


Fig. 1. Precipitation of thorium as tannate of gelatin in presence of neutral salts: A--degree of thorium precipitation in %; B--pH of solution; 1--solution containing 0.06 moles $CaCl_2$; 2--solution containing 0.1 mol Na_2SO_4; 3--solution containing 0.1 mol NaCl.

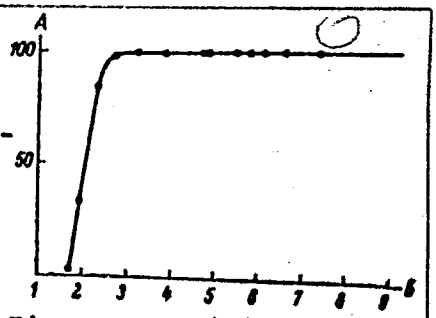


Fig. 2. Precipitation of thorium as tannate of gelatin from a simulated sea water solution: A--degree of thorium precipitation in %; B--pH of solution.

It was found that tannate of gelatin effectively extracts thorium from diluted solutions in a wide range of pH and concentration. Thorium extraction is facilitated by the presence of neutral salts, in particular $CaCl_2$. In the case of a solution containing $CaCl_2$ complete extraction of thorium is achieved for pH ranging from 3 to 9. Orig. art. has: 2 figures, 2 tables.

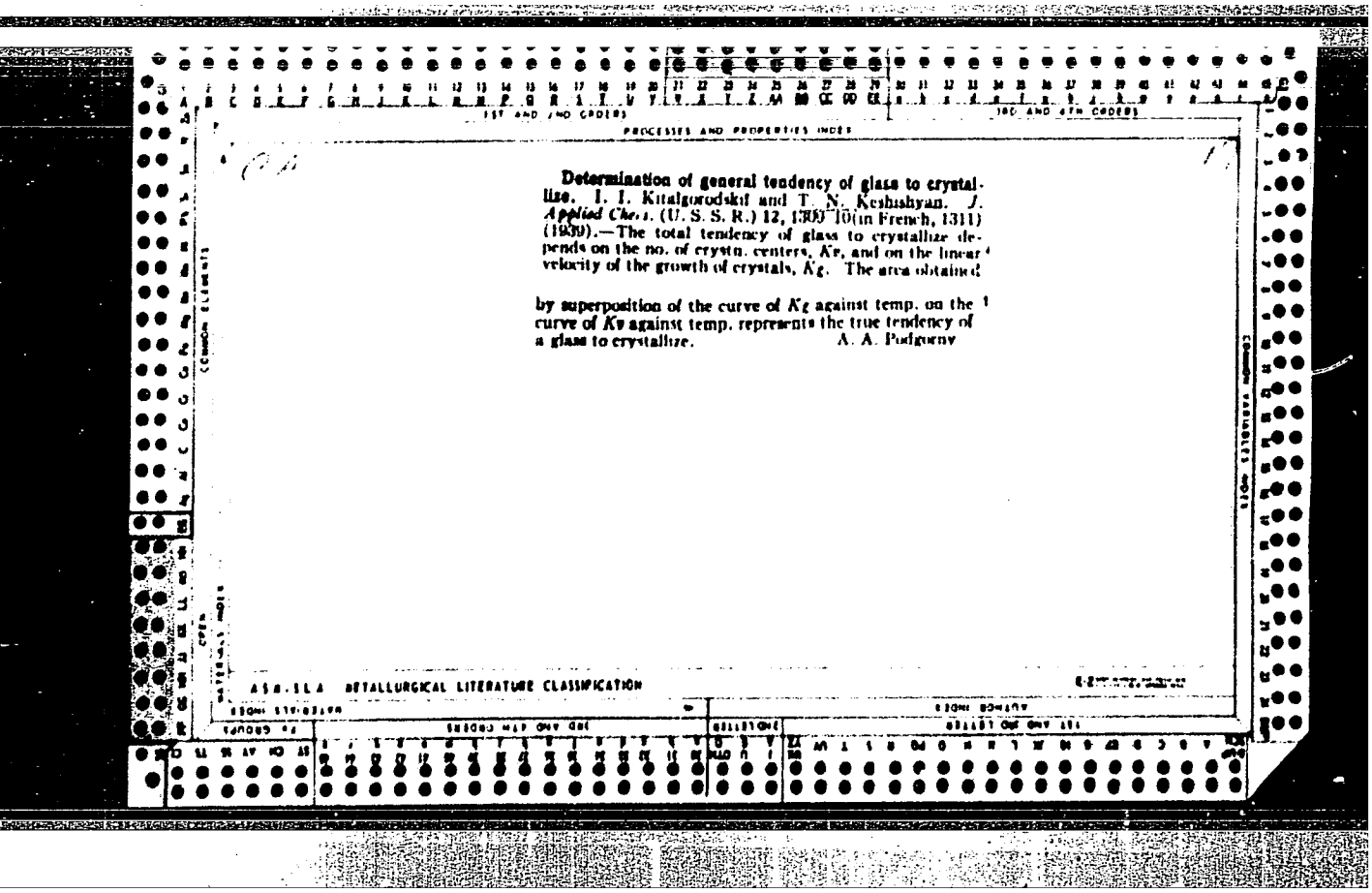
SUB CODE: 07/ SUBM DATE: 24Dec63/ ORIG REF: 004/ OTH REF: 003

Card 2/2

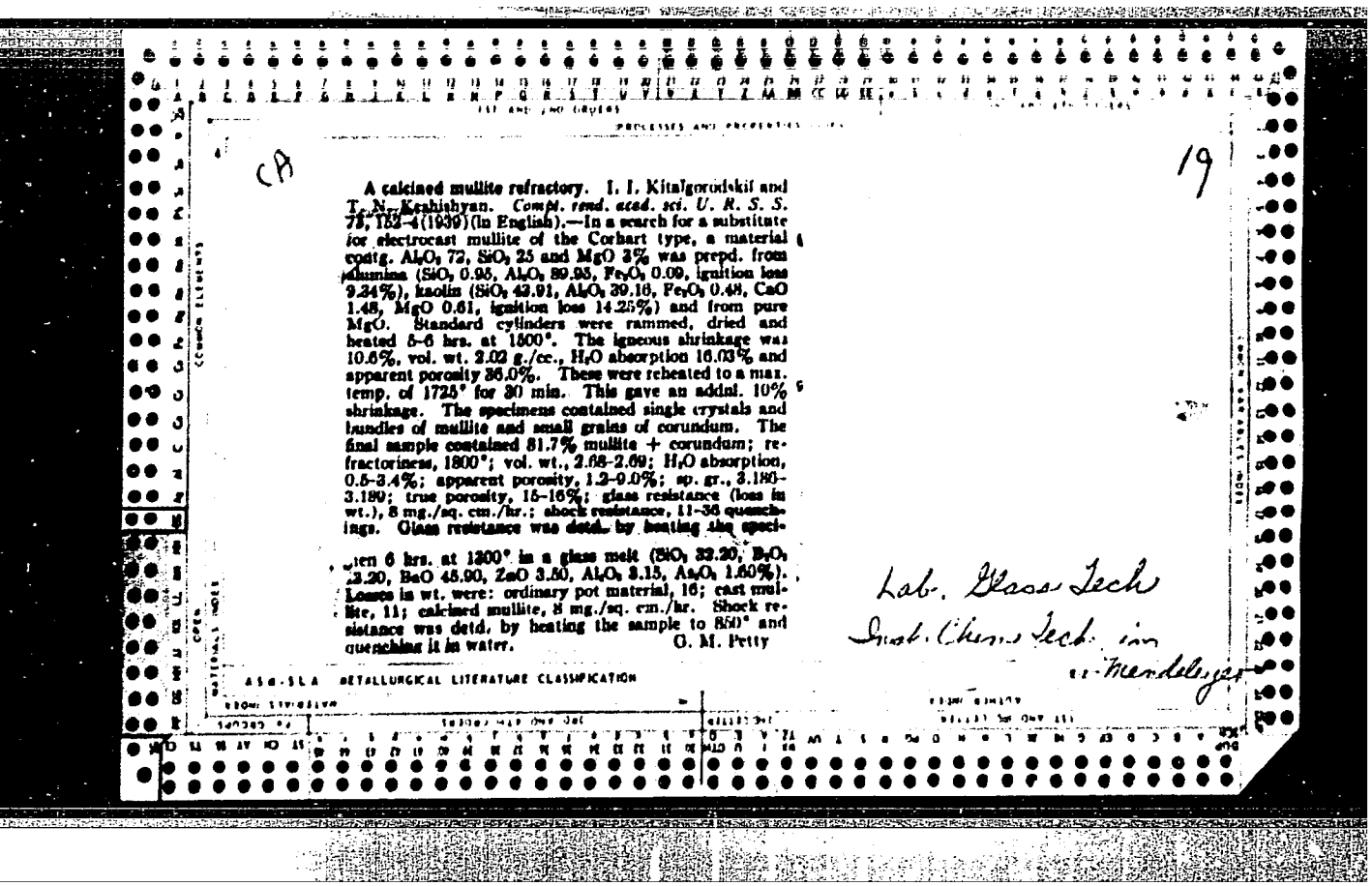
KESHISHYAN, M.N.

"Fascicles for the Russian-Tajik-Latin medical dictionary" by M.IA.Rasulov. Zdrav. Tadzh. 8 no.6:59-60 N-D '61. (MIRA 15:1)

1. Direktor Respublikanskoy nauchnoy meditsinskoy biblioteki Ministerstva zdravookhraneniya Tadzhikskoy SSR.
(RUSSIAN LANGUAGE--DICTIONARIES--POLYGLOT)
(MEDICINE--DICTIONARIES)
(RASULOV, M:IA.)



Determination of general tendency of glass to crystallize. I. I. Kitaigorodskiĭ and T. N. Keshishyan. *J. Applied Chem.* (U. S. S. R.) 12, 1309-10 (in French, 1311) (1939).—The total tendency of glass to crystallize depends on the no. of crystn. centers, Kv, and on the linear velocity of the growth of crystals, Kg. The area obtained by superposition of the curve of Kg against temp. on the curve of Kv against temp. represents the true tendency of a glass to crystallize. A. A. Podgorny



CA

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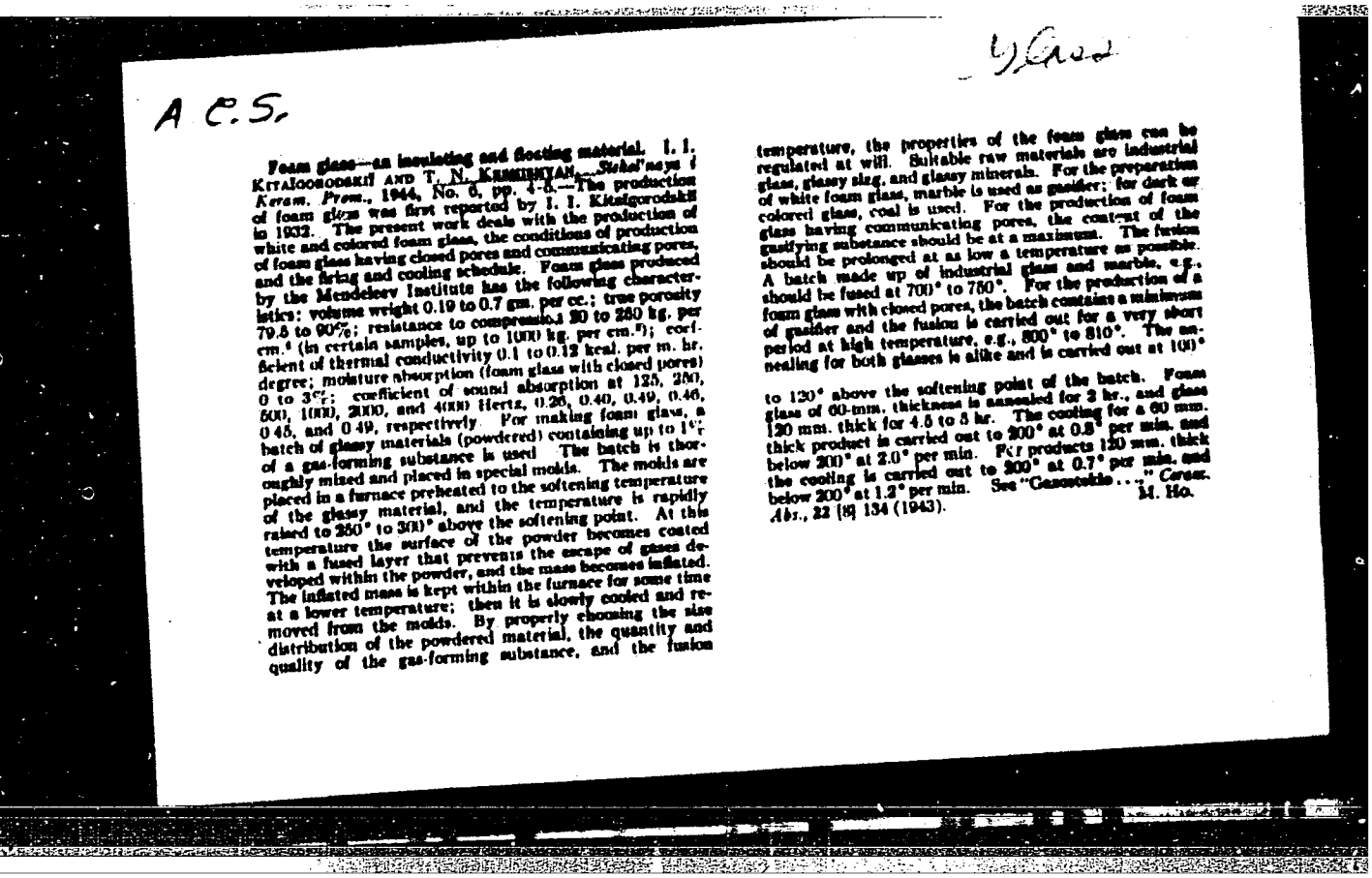
A calcined mullite refractory. I. I. Kitaigorodskii and T. N. Krshishyan. *Compt. rend. acad. sci. U. R. S. S.* 25, 152–4 (1939) (In English).—In a search for a substitute for electrocast mullite of the Corhart type, a material contg. Al_2O_3 72, SiO_2 25 and MgO 3% was prepd. from alumina (SiO_2 0.95, Al_2O_3 89.93, Fe_2O_3 0.09, ignition loss 9.24%), kaolin (SiO_2 42.91, Al_2O_3 39.16, Fe_2O_3 0.48, CaO 1.48, MgO 0.61, ignition loss 14.25%) and from pure MgO. Standard cylinders were rammed, dried and heated 5–6 hrs. at 1500°. The igneous shrinkage was 10.6%, vol. wt. 2.02 g./cc., H_2O absorption 16.03% and apparent porosity 36.0%. These were reheated to a max. temp. of 1725° for 30 min. This gave an addnl. 10% shrinkage. The specimens contained single crystals and bundles of mullite and small grains of corundum. The final sample contained 81.7% mullite + corundum; refractoriness, 1800°; vol. wt., 2.68–2.69; H_2O absorption, 0.5–3.4%; apparent porosity, 1.2–9.0%; sp. gr., 3.180–3.189; true porosity, 15–16%; glass resistance (loss in wt.), 8 mg./sq. cm./hr.; shock resistance, 11–36 quenchings. Glass resistance was detd. by heating the speci-

[illegible] 6 hrs. at 1300° in a glass melt (SiO_2 32.20, B_2O_3 13.20, BaO 45.90, ZnO 3.50, Al_2O_3 3.15, As_2O_3 1.60%). Losses in wt. were: ordinary pot material, 16; cast mullite, 11; calcined mullite, 8 mg./sq. cm./hr. Shock resistance was detd. by heating the sample to 850° and quenching it in water.

O. M. Petty

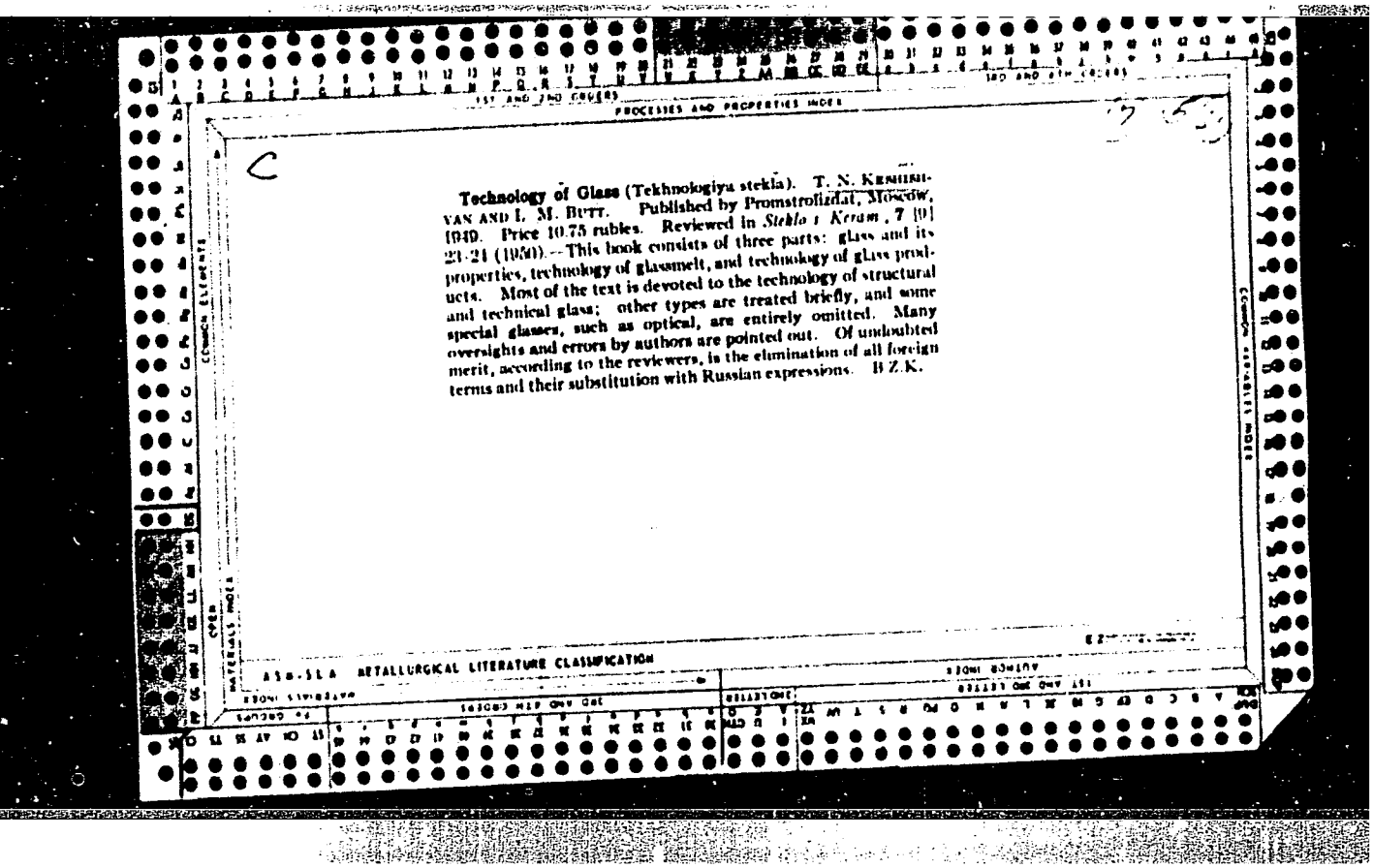
Lab. Glass Tech
Inst. Chem. Tech. im
D. I. Mendeleyev

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION



A C.S.

Foam glass—an insulating and floating material. I. I. KITAIGORODSKII AND T. N. KHRENKIYAN. *Stekol'naya i Keram. Prom.*, 1944, No. 6, pp. 4-6.—The production of foam glass was first reported by I. I. Kitaigorodskii in 1932. The present work deals with the production of white and colored foam glass, the conditions of production of foam glass having closed pores and communicating pores, and the firing and cooling schedule. Foam glass produced by the Mendeleev Institute has the following characteristics: volume weight 0.19 to 0.7 gm. per cc.; true porosity 79.5 to 90%; resistance to compression 20 to 280 kg. per cm.^{2} (in certain samples, up to 1000 kg. per cm.^{2}); coefficient of thermal conductivity 0.1 to 0.12 kcal. per m. hr. degree; moisture absorption (foam glass with closed pores) 0 to 3%; coefficient of sound absorption at 125, 250, 500, 1000, 2000, and 4000 Hertz, 0.26, 0.40, 0.49, 0.46, 0.45, and 0.49, respectively. For making foam glass, a batch of glassy materials (powdered) containing up to 1% of a gas-forming substance is used. The batch is thoroughly mixed and placed in special molds. The molds are placed in a furnace preheated to the softening temperature of the glassy material, and the temperature is rapidly raised to 250° to 300° above the softening point. At this temperature the surface of the powder becomes coated with a fused layer that prevents the escape of gases developed within the powder, and the mass becomes inflated. The inflated mass is kept within the furnace for some time at a lower temperature; then it is slowly cooled and removed from the molds. By properly choosing the size distribution of the powdered material, the quantity and quality of the gas-forming substance, and the fusion temperature, the properties of the foam glass can be regulated at will. Suitable raw materials are industrial glass, glassy slag, and glassy minerals. For the preparation of white foam glass, marble is used as gasifier; for dark or colored glass, coal is used. For the production of foam glass having communicating pores, the content of the gasifying substance should be at a maximum. The fusion should be prolonged at as low a temperature as possible. A batch made up of industrial glass and marble, e.g., should be fused at 700° to 750°. For the production of a foam glass with closed pores, the batch contains a minimum of gasifier and the fusion is carried out for a very short period at high temperature, e.g., 800° to 810°. The annealing for both glasses is alike and is carried out at 100° to 120° above the softening point of the batch. Foam glass of 60-mm. thickness is annealed for 3 hr., and glass 120 mm. thick for 4.5 to 5 hr. The cooling for a 60 mm. thick product is carried out to 200° at 0.8° per min. and below 200° at 2.0° per min. For products 120 mm. thick the cooling is carried out to 200° at 0.7° per min. and below 200° at 1.2° per min. See "Gazosteklo . . ." *Ceram. Abs.*, 22 [8] 134 (1943). M. Ho.



PROCESSES AND PROPERTIES INDEX

C

Technology of Glass (Tekhnologiya stekla). T. N. Kremlevan and I. M. Butt. Published by Promstroiizdat, Moscow, 1949. Price 10.75 rubles. Reviewed in *Steklo i Keram*, 7 [9] 21-24 (1950).—This book consists of three parts: glass and its properties, technology of glassmelt, and technology of glass products. Most of the text is devoted to the technology of structural and technical glass; other types are treated briefly, and some special glasses, such as optical, are entirely omitted. Many oversights and errors by authors are pointed out. Of undoubted merit, according to the reviewers, is the elimination of all foreign terms and their substitution with Russian expressions. B.Z.K.

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION

KESHISHYAN, T. I.

Keshishyan, T. I. - "The sintering and annealing of foamglass," Trudy Mosk. khim.-tekhnol, in-ta im. Mendeleyeva, Issue 15, 1949, p. 153-55

SO: U-5240, 17, Dec. 53, (Letopis 'Zhurnal 'nykh Statey, No. 25, 1949).

KESHISHYAN, T. N.

(5)

Microporous foam glass. I. I. Kitaigorodskii and T. N. Keshishyan (D. I. Mendeleev Chem.-Technolog. Inst., Moscow). *Doklady Akad. Nauk S.S.S.R.* 82, 619-21 (1952).—In order to obtain foam glass of uniform microporous structure, the gas-forming material is introduced into the charge in the form of true solns. or aq. suspensions by wet-grinding it with the glass. Wet-grinding forms silicic acid gel film on the glass grains; film is good adsorbent of gas-forming material. Adsorption did not exceed 5-6%. In using aq. suspensions of coke and chalk, the suspension becomes stabilized by partial leaching-out during wet-grinding. Min. diam. of pores was 3.5-7.5 μ; bulk wt. was 0.33-0.70 g./cc.; crushing strength was 100-130 kg./sq. cm. With soda, pores were closed; with coke, pores were closed and partially interconnected; with chalk, the pores were interconnected.

B. Z. Kamich

C.A. V-48
no 10, 1954
Glass, Clay Products, Refractories and Enameled Metals

MF 7-13-54

KESHISHYAN, T.N.

Investigation of silicates under variable temperature conditions. Doklady Akad. Nauk S.S.S.R. 83, 601-2 '52. (MLRA 5:5)
(CA 47 no.19:10189 '53)

1. D.I.Mendeleyev Chem.-Technol. Inst., Moscow.

KESHISHYAN T.N.

KITAYGORODSKIY, I.I.; KESHISHYAN, T.N.; SMIRNOVA, I.A., nauchnyy redaktor; GLEZAROVA, I.L., red[illegible]; DVORNIKOVA, N.I., tekhnicheskiy redaktor

[Foam glass] Penosteklo. Moskva, Gos. izd-vo lit-ry po stroit. materialam, 1953. 77 p. [Microfilm] (MLRA 7:10)
(Glass)

KESHISHYAN, T. N.

USSR/ Chemistry - Glass manufacture

Card 1/1 Pub. 104 - 2/11

Authors : Kitaygorodskiy, I. I., Prof. Dr. of Tech. Sc.; Keshishyan, T. N.; and Varshal, B. G.

Title : Crystallization properties of window glass and its dependence upon the value of the alumo-magnesia coefficient

Periodical : Stek. i ker. 2, 4 - 5, Feb 1955

Abstract : Experiments were conducted to determine the change in the crystallization characteristics of window glass due to the change in the chemical composition of alumo-magnesia glass. The results obtained are given in tables and graph. A comparison of the results showed that glass with an alumo-magnesia coefficient of $K_{\frac{A}{M}}$ = 0.330 - 0.500 possesses the minimum rate of crystallization and a very narrow temperatureinterval of crystallization. Two USSR references (1939 - 1952). Tables; graph.

Institution: .....

Submitted: .....

KESHISHYAN, T.N.

V MT **Dependence of the devitrification of window glass on the alumina : magnesia ratio.** I. I. Kitaigorodskii, T. N. Keshishyan and B. G. Varshal (*Glass & Ceramics, Moscow*, 1955, 12, No. 2, 4).—The low devitrification tendency of Al_2O_3–MgO glasses (normally containing >1% of Al_2O_3) depends not only on the amounts of Al_2O_3 and MgO but also on their ratio. Compositions of seven glasses investigated are tabulated ; those with an Al_2O_3 : MgO ratio of 0·33—0·50 have the lowest rate of crystal growth and a fairly narrow temp. interval of crystallization. BRIT. CERAM. RES. ASS. ABSTR. (B.C.)

(3)

Keshishyan, T. N.

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Crystallization characteristics of window glass as a function of the alumina-magnesia coefficient. I. I. Kitaigorodskiĭ, T. N. Keshishyan, and B. G. Varshal. *Steklo i Keram.* 12 [2] 4-5 (1955).—Crystallization characteristics were studied under conditions of gradient heating. The low crystallization capacity of alumina-magnesia glasses containing, as a rule, over 1% Al_2O_3 is determined also by the proportion of the percentage content of these oxides in addition to the absolute amounts of Al_2O_3 and MgO. Glasses with an alumina magnesia coefficient of $K_{a/m}$ = 0.330 to 0.500 have a minimum rate of crystal growth and a very narrow temperature interval of crystallization. RZK

KESHISHYAN T.N.

USSR /Chemical Technology. Chemical Products and Their Application I-12

Silicates. Glass. Ceramics. Binders.

Abs Jour: Referat Zhur - Khimiya, No 9, 1957, 31475

Author : Keshishyan T.N., Varshal B.G.

Title : Synthesis of Devitrite

Orig Pub: Sb. nauch. rabot po khimii i tekhnol. silikatov. M., Promstroyizdat 1956, 339-343

Abstract: The paper describes the synthesis, petrographic, thermographic, roentgenographic and electronographic studies of devitrite -- $Na_2O.3CaO.6SiO_2$ (I). A glass having the composition of I was obtained and a study of its crystallization properties was carried out. Maximum rate of growth of crystals of I is of 115 μ /minute at 960° . I was

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USSR /Chemical Technology. Chemical Products and Their Application I-12

Silicates. Glass. Ceramics. Binders.

Abs Jour: Referat Zhur - Khimiya, No 9, 1957, 31475

obtained by crystallization of the glass at 900-920° . Roentgenographic investigation of I yielded 46 interplanar distances of the lattice. Also given are the relative intensities of the lines. To check the results an electronographic study was used. An alcoholic suspension of I, and a suspension of I in a 0.5% solution of celluloid in amyl acetate, were utilized. In this manner lines were determined which correspond to 10 interplanar distances of I. Bibliography 7 references.

Card 2/2

SH

Category : USSR/Atomic and Molecular Physics - Liquids D-8

Abs Jour : Ref Zhur - Fizika, No 2, 1957 No 3600

Author : Kitaygarodskiy, I.I., Keshinyan, T.N., Berezhnoy, A.I.
Title : Method for Determining the Maximum Breakdown Strain and Young's Modulus of Glass Specimens.

Orig Pub : Tr. Mosk. khim.-tekhnol. in-ta, 1956, vyp. 21, 39-44

Abstract : Description of a method for determining the maximum strain and the Young's modulus (E) of glass specimens at the instant directly proceeding the breakdown, using motion picture photography of the scale of the indicator that measures the deflection of the specimen. The specimen was loaded at a rate of 2.7 kg/sec. A linear relationship was established between the magnitude of the strain and the load. The bending strength was found to be 800 kg/mm^2, the maximum strain was 0.4115 mm (specimen measuring 120 x 45 x 225, distance between knife edges 100 mm), E = 6895 kg/mm^2, δ/0.1 E=0.011.

Card : 1/1

USSR/Chemical Technology - Chemical Products and Their Application. Silicates. Glass. Ceramics. Binders, I-9

Abst Journal: Referat Zhur - Khimiya, No 19, 1956, 62271

Author: Kitaygorodskiy, I. I., Keshishyan, T. N., Epelbaum, M. B.

Institution: None

Title: Effect of Heat Treatment of Mechanical Strength of Glass Fibers

Original Periodical: Tr. Mosk. khim.-tekhnol. in-ta, 1956, No 21, 67-73

Abstract: Different authors have found that strength of glass fibers (GF) decreases steadily with increasing temperature of their treatment. In this paper a study is presented of the effects of heat treatment of threads and tape made from GF, of alkali-free and alkaline composition, on their tensile strength, over a relatively wide temperature range (100-705°) and duration period (up to 12 hours). The investigations have led to the following conclusions. Change in strength following a heat treatment of GF, with all other conditions being equal, depends on the composition of the glass. Decrease in

Card 1/2

Keshishyan, T.N.

137-1958-2-2289

Translation from: Referativnyy zhurnal, Metallurgiya, 1958, Nr 2, p 11 (USSR)

AUTHORS: Yanovskiy, V.K., Keshishyan, T.N.

TITLE: The Use of Ultrasonic Waves in the Investigation of Ceramic Materials (Primeneniye ul'trazvukovykh voln dlya issledovaniya keramicheskikh materialov)

PERIODICAL: V sb.: Fiz.-khim. osnovy keramiki Moscow, Promstroyizdat, 1956, pp 546-555

ABSTRACT: An explanation is given of a theory on the propagation and determination of the speed of ultrasonic waves at frequencies from 20 kc to 1,000 mc within different materials, including ceramic materials. When the ultrasonic waves are concentrated at one spot, ultrasonic oscillations result having an intensity in excess of 2 kw/cm^2; the maximum frequency of an ultrasonic wave was 10^9 cps. The testing of highly porous ceramic materials by means of ultrasonic waves is difficult, because the attenuation of a wave by the pores is proportional to the fourth power of the frequency and to the cube of the dimensions of the pores. Only such dense substances as porcelain, faience, steatite, and corundum and metallic ceramic materials can be tested with ultrasonic waves,

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The Use of Ultrasonic Waves (cont.)

and the waves must be of high frequency. A description is given of equipment of the Mendeleyev Institute of Chemical Technology in Moscow (MKhTI im. D.I.Mendeleyeva) for determining the modulus of elasticity (E) by means of an ultrasonic impulse method. This equipment was used to determine the speed of an ultrasonic wave in steel and Al (5.5×10^5 cm/sec) and in porcelain (5.7×10^5 cm/sec) and to determine the modulus of elasticity of a baked corundum ceramic material as a function of its Al_2O_3 content within the range of 60 - 100% ($E = 2.8 \times 10^{12}$ dynes/cm^2). The results obtained were in close agreement with data already published. The ultrasonic-wave method of detecting flaws in fine ceramic materials has proved very satisfactory.

S.G.

1. Ceramic materials—Test methods 2. Ceramic materials—Test equipment 3. Test equipment—Characteristics

Card 2/2

KESHISHYAN, T.N.; VARSHAL, B.G.; FAYNBERG, Ye.A.

Changes in the crystallization properties of aluminum - magnesium glass as dependent on the $CaO:MgO:Al_2O_3$ ratio. Trudy MKHTI no.24: 237-246 '57. (MIRA 11:6)

(Glass research) (Vitreous state)

AUTHORS: Kitaygorodskiy, I. I., Keshishyan, T. N., Faynberg, Ye. A. 72-58-3-1/15

TITLE: Investigation of the Types of Glass in the System SiO_2-$-Al_2O_3$-B_2O_3-BaO (Issledovaniye stekol v sisteme SiO_2-Al_2O_3-$-B_2O_3$-BaO)

PERIODICAL: Steklo i Keramika, 1958, Vol. 15, Nr 3, pp. 1-5 (USSR)

ABSTRACT: This system has not yet been thoroughly investigated. A series of synthetically produced glass-compositions in this system, the major part of which refers to the field of heavy barium-chromates with a high barium-oxide content (45 to 55%), is shown in technical literature. Vargin and Kefeli investigated the reaction of silicate-formation in the layer of heavy barium chromate C-24. Data on the measurements of viscosity of these types of glass, as well as a description of their melting under operating-conditions are equally available. A series of works is devoted to an increase in the chemical stability of the heavy barium chromates. 6 types of glass which were synthetically manufactured in this

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system, are given in the work by Navias and Grin (table 1). In view of determining the ranges of glass-formation in this system, the authors selected 3 variants with a constant Al_2O_3- content of 10, 20 and 30%, in which case the compositions of glass are given in molecular per cent. The quantity of SiO_2 was changed from 20 to 70%, that of B_2O_3 from 10 to 60%. The glass-compositions are seen in table 2. Moreover, the composition of the layers and the melting are fully described. All types of glass were melted simultaneously in a furnace with oil-heating, according to a severe regime of temperature, as given in the table, in which case crucibles of corundum - from the Khar'kov-works for refractory products - were used. The control was effected by means of a binocular microscope MBS-1. The viscosity of the glass types was measured according to the method by Inglish and its values within the temperature-range of from 550 to 800°C are given in table 3. The dependence of the temperature on the chemical composition of certain types of glass is shown in figures 1 and 2. The linear coefficient of expansion was measured by means of the quartz-dilatometer VNIIS and the results are given in table 4. The dependence

of the coefficient of expansion on certain glass-compositions is seen from figures 3, 4 and 5, whereas the diagram of equal coefficients of expansion is given in figure 6. The electrophysical properties of the various alkalifree types of glass were also investigated from which it may be concluded that these types of glass should be of great interest for the electro-vacuum-industry. The same types may also be recommended as insulators of high quality on account of their high electric resistance. Furthermore, the various figures are explained in detail. Conclusions:

1) The range of glass-formation in the section of the system up to 30 molecular% Al_2O_3 was investigated and compositions were discovered which form glass at 1450° and 1550°C.
2) The inclination of the types of glass for crystallisation was investigated and the constant compositions determined.
3) The problem of the state of boranhydride in the investigated types of glass was dealt with.
4) The found values of the investigated types of glass allow to recommend their use in some fields of electro-vacuum--engineering. There are 6 figures, 3 tables.

Investigation of the Types of Glass in the System SiO_2-Al_2O_3-B_2O_3-BaO 72-58-3-1/15

ASSOCIATION: MKhTI imeni D. I. Mendeleyeva (MKhTI imeni D. I. Mendeleyev)

1. Metal oxides--Silicon dioxide systems--Chemical analysis
2. Glass--Analysis

Card 4/4

AUTHORS: Keshishyan, T. N., Epel'baum, V. B. SOV/ 72-58-7-4/19

TITLE: The Structure of Glass and Its Mechanical Strength (Struktura stekla i yego mekhanicheskaya prochnost')

PERIODICAL: Steklo i keramika, 1958, Nr 7, pp. 12-17 (USSR)

ABSTRACT: According to P. P. Kobeko (Ref 1) the theoretical tensile strength of silicate glass should amount to approximately 800 to 900 kilo/mm^2, whereas it practically amounts to from 8 to 15 kilo/mm^2 in the case of massive glass and only in the case of glass fibers of a diameter of 3 to 5μ it amounts to 400 kilo/mm^2. This must be caused by the different heterogeneity of the samples which are connected with the crystallizability of the glass. This is confirmed by the work carried out by N. N. Valenkov, Ye. A. Poray-Koshits (Ref 2), O. K. Botvinkin (Ref 1), K. G. Kumanin (Ref 2), as well as L. I. Demkina (Ref 3). The authors further investigated the influence of the glass composition with respect to its mechanical strength in connection with this the diagrams are given in figures 1 and 2. Brittleness was selected amongst the mechanical properties because a method exists for its determination and since the glass samples do not require any additional heat treatment

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in this case. Moreover, the carrying out of these tests according to the method developed by Yu. A. Brodskiy (Ref 1) is described. The results obtained by the determination of the brittleness are given in figure 3. As results from this, the brittleness of glass is not in a linear relation to its composition. The properties of crystallization were investigated according to the method developed by T. N. Keshishyan (Ref 1). The dependence of the crystallizability of glass and its brittleness on its composition are given in figure 4. The dependence of the brittleness on the waiting time (determined by A. Di t el) which was determined according to the method developed by Brodskiy, is graphically represented in figure 5. The existence of a certain relation between the brittleness and the crystallizability of the glass is confirmed in this way. The influence of the heat treatment on the mechanical strength of the glass fiber was investigated in the work carried out by I. I. Kitaygorodskiy, T. N. Keshishyan, M. B. Epel'baum (Ref 1). Conclusion: It was assumed that the mechanical properties of the types of glass depend in a certain way on the degree of microheterogeneity of the glass. It was tried to explain the influence of the chemical composition on the strength

of the glass by the change of the strength of the chemical bonds and by the crystalline force. The results obtained by the experiments carried out confirmed this. There are 5 figures and 9 references, 8 of which are Soviet.

1. Glass--Structural analysis 2. Glass--Mechanical properties
3. Glass--Test results

5(0)

AUTHORS: Kreshkov, A. P., Keshishyan, T. N., Myshlyayeva, L. V., Khananashvili, L. M.

SOV/72-59-4-3/21

TITLE: Investigation and Application of Synthetic Organic Silicates (Issledovaniye i primeneniye iskusstvennykh organicheskikh silikatov)

PERIODICAL: Steklo i keramika, 1959, Nr 4, pp 11-14 (USSR)

ABSTRACT: The theoretical bases of the formation of organic silicates are shown in the papers by A. P. Kreshkov, A. N. Chivikova, V. A. Matveyev, G. N. Nessonova, M. L. Darashkevich (Ref 1). The synthetic silicates have a number of valuable properties: good adhesion to glass, metal, asbestos, tissues, and abrasives. They may be used for the production of films for glass and metal which do not break in heating and they are also highly acid-proof. The products which are obtained on the basis of alkylalkoxy-silanes are characterized by a good solubility in water. Their aqueous solutions are used as hydrophobic impregnations of building material. A. P. Kreshkov, L. V. Myshlyayeva, L. M. Khananashvili (Ref 2) carried out their spectrum and X-ray structural analyses as well as the microcrystalloscopic investigation. Since it is possible to use

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the obtained products as glues and coatings at high temperatures their behaviour in heating was thermographically investigated. For this purpose the self-recording pyrometer of the Academician N. S. Kurnakov was used as well as the torsion balance of the VT-type. In these investigations the authors refer to the papers by L. M. Khananashvili, L. V. Myshlyayeva, B. M. Mikhalev, V. Ye. Shkol'nyy (Ref 3). The characteristics of the products are given in the table. On figures 1, 3, 5, and 6 the heating curves of the products 1, 2, 5, and 6 are plotted and on figures 2, 4, and 7 the curves of weight in heating of the products 1, 2, and 6 are given. The crystallo-optical investigations were performed on the basis of the paper by D. S. Belyankin, V. V. Lapin, N. A. Toropov (Ref 4). As may be seen from the copyrights of A. P. Kreshkov, L. V. Myshlyayeva, L. M. Khananashvili (Ref 5) the hitherto used skin glue which is a shortage-good, may be replaced by a glue on the basis of synthetic silicates for the gluing of tissues to grinding disks. The products obtained may be used in various fields of building and silicate material industry. There are 7 figures, 1 table, and 6 Soviet references.

15 (2)
AUTHORS: Keshishyan, T. N., Epel'baum, M. B. SOV/72-59-8-4/17

TITLE: Micro-hardness of Glass as a Function of Its Micro-heterogeneity (Zavisimost' mikrotverdosti ot mikrogeterogennosti stekla)

PERIODICAL: Steklo i keramika, 1959, Nr 8 , pp 9-12 (USSR)

ABSTRACT: In the experiments by A. A. Bochvar and O. S. Zhadayeva, Ye. M. Savitskiy and M. A. Tylkina, A. M. Korol'kov and E. S. Kodaner (Footnote 1) the micro-hardness method of physico-chemical analysis is used. It can be seen from the work done by A. M. Korol'kov and E. S. Kodaner, V. M. Glazov, V. N. Vigdorovich, G. A. Korol'kov, that micro-hardness is immediately connected with the phase diagram of the system (Footnote 2). In a previous paper published by the authors of the present article it was suggested that the mechanical properties of glass are conditioned by the effect of the micro-heterogeneity, which is due to the crystallization properties of glass and its heat treatment, upon its strength (Footnote 3). Two series of glass types were examined: first glass types of different chemical composition with the same heat treatment, and second, glass types of the same chemical composition with

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a different heat treatment. In the investigation discussed here, 24 glass types with the same heat treatment in the system SiO_2-Al_2O_3-CaO-MgO-Na_2O were dealt with. Their micro-hardnesses and crystallization characteristics are shown in table 1. Their melting conditions and crystallization properties have already been discussed in the papers by T. N. Keshishyan, B. G. Varshal, Ye. A. Faynberg (Footnote 4). Yu. V. Rogozhin, Z. M. Syritskaya, B. V. Tarasov (Footnote 5) as well as N. M. Pavlushkin and G. G. Sentyurin (Footnote 6) used specially polished samples in the examination of the glass micro-hardness. The methods suggested by the authors consist in measuring the glass micro-hardness of fresh splinters with a grain size of 2-3 mm, whereby internal tensions in the glass are practically eliminated. A series of 24 glass samples was examined. The samples were melted and cooled under constant conditions. The second series examined was one of glass samples taken from different places of a tank furnace of the Magnitogorsk glass factory and cooled in water. The results obtained with the first series are shown in table 1, with the second

series in table 2. Figure 1 shows the micro-hardnesses of the different glass types as functions of the maximum rate of crystal growth. In connection with these examinations the work done by P. P. Kobeko (Footnote 6) is mentioned. Figure 2 shows the micro-hardness of glass from the Magnitogorsk factory as a function of the sampling temperature. It was proved by the investigations under consideration that a change of the degree of micro-heterogeneity of glass by different heat treatment results in a change in the mechanical properties of the glass. There are 2 figures, 2 tables, and 9 references, 7 of which are Soviet.

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S/020/61/138/002/021/024
B103/B220

15.2210 3009, 3209, 3309

AUTHORS: Budnikov, P. P., Corresponding Member AS USSR, Keshishyan, T. N., and Yanovskiy, V. K.

TITLE: Influence exerted on the sintering of spectroscopically pure magnesium oxide by the admixture of some cations

PERIODICAL: Akademiya nauk SSSR. Doklady, v. 138, no. 2, 1961, 365-368

TEXT: The authors studied the sintering of spectroscopically pure MgO and the influence exerted by slight admixtures of cations of various crystallochemical characteristics. These were Fe^{3+}, Zr^{4+}, Sc^{3+}, and Ni^{2+}, the radii of which differ but slightly from that of Mg^{2+}. In the opinion of the authors, the results of other investigations regarding the above influence are not reliable, since they concerned substances having a high percentage of admixtures (up to 0.5 %). The slight amounts of admixtures to spectroscopically pure MgO, which were used by the authors, surpassed the admixtures contained in the initial MgO by a multiple, but were small enough to be dissolved completely in MgO. In order to reduce the

Influence exerted on the sintering of...

influence of the kinetics of dissolution of the admixtures as far as possible and to ensure their uniform distribution on the surface of and inside the periclase grains, all admixtures were introduced by coprecipitation as hydroxides from mixtures consisting of solutions of magnesium chloride (20 %) and the corresponding admixture. Table 1 shows data concerning the concentrations of cations of the admixtures in atom% allowing for the yield in MgO. The precipitates were filtered and roasted at 625°C. By roasting, the activated form of MgO was obtained. The MgO thus obtained was compressed into disks (diameter 11 mm, thickness 1 to 2 mm) under a pressure of 1350 kg/cm^2 and sintered twice: at 1320 and at 1600°C. Based on the shrinking of the specimen along its diameter and on the weight of unit volume the degree of sintering was checked. From Table 1 it is evident that even small amounts of admixtures (from 0.1 atom% onward) accelerate the sintering. Another type of MgO, chemically pure, shows a qualitatively different behavior as compared to the spectroscopically pure MgO. The latter begins to sinter at 1300°C, whereas the chemically pure MgO is sintered already completely at 1300°C. The microstructure of the specimens shows that no appreciable recrystallization of MgO occurs at 1320°C in case of practically complete sintering of the MgO

with admixture of 0.2 to 0.5 % Zr^{4+} cation or other admixtures. At 1600°C, however, a considerable recrystallization takes place. 0.1 % of Zr cations increases this recrystallization substantially. The size of the MgO crystallites is not influenced by the quantity of the admixture, but the amount of the interorystallite substance increases. Fig. 3 shows the dependence of the weight of unit volume and the apparent porosity of the specimens on the Fe^{3+} concentration. Based on this fact, the authors conclude that Zr^{4+} and Sc^{3+} are far less effective than Fe^{3+} in the initial stage of sintering. For sintering at 1600°C, however, one obtains a much stronger compression by large admixtures of Sc^{3+} and Zr^{4+} than by admixtures of Fe^{3+} or Ni^{2+}. It is assumed that the highly polarizable cations Fe^{3+} and Ni^{2+} having a mobile 18-electron shell influence the surface diffusion of the active and very fine-grained MgO, which prevails at the beginning of sintering, more intensely than the cations of Zr^{4+} and Sc^{3+}. The latter have the structure of inert gases and exert a stronger influence on the volumetric diffusion which is of large importance in the final stages of sintering, after the formation of closed pores. The authors conclude from the fact that the curve shows a maximum for the admixture of Fe^{3+} (Fig. 3) that there must exist an optimum concentration

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B103/B220

Influence exerted on the sintering of...

of the admixtures for the acceleration of MgO sintering. The authors doubt that such a strong dependence of the sintering process on admixtures of 0.1 atom% may be explained by macroscopic flow (Ref. 7), since a retardation of the sintering is more likely to be expected for high temperatures. The considerable influence of the relatively insignificant amounts of admixtures on the progress of the sintering of spectroscopically pure MgO and the easily ascertainable difference in their type of action illustrate the obvious relation between the crystallochemical characteristics of their cations and their relative effectiveness. The authors infer from their results that the active MgO may be considered as being really pure only if the amount of admixed cations having a higher charge and polarizability than those of Mg^{2+} does not surpass 0.05 to 0.01 %. The theoretical density of a sufficiently pure MgO can be obtained almost at 1320°C by introduction of 0.2 to 0.5 atom% Zr^{4+}. There are 3 figures, 1 table, and 7 references: 2 Soviet-bloc and 5 non-Soviet-bloc. The three most recent references to English-language publications read as follows: Ref. 2: J. W. Nelson, I. B. Cutler. J. Am. Ceram. Soc., 41, no. 10, 406 (1958); Ref. 5: L. M. Atlas. J. Am. Ceram. Soc., 40, no. 6, 196 (1957); Ref. 7: A. E. Gorum, W. J. Luhman, J. A. Pask. J. Am. Ceram. Soc., 43, no. 5, 241 (1960).

Card 4/6

23838
S/020/61/138/002/021/024
B103/B220

Influence exerted on the sintering of...

ASSOCIATION: Moskovskiy khimiko-tekhnologicheskiy institut im. D. I. Mendeleyeva (Moscow Institute of Chemical Technology imeni D. I. Mendeleyev)

SUBMITTED: January 16, 1961

Fig. 3:
a) atom%
b) g/cm^2.

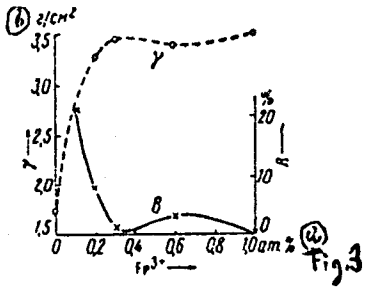

Fig.3

Card 5/6

BUDNIKOV, P.P.; KESHISHYAN, T.N.; YANOVSKIY, V.K.

Effect of the addition of certain cations on the sintering of spectrally pure magnesium oxide. Dokl.AN SSSR 138 no.2:365-368 My '61. (MIRA 14:5)

1. Moskovskiy khimiko-tekhnologicheskiy institut im. D.I.Mendeleyeva.
2. Chlen-korrespondent AN SSSR (for Budnikov).
(Sintering) (Magnesium oxide)

37232
S/131/62/000/005/003/004
B105/B138

24,2100

AUTHORS: Budnikov, P. P., Keshishyan, T. N., Yanovskiy, V. K.

TITLE: Method of measuring the electrical conductivity of ceramic materials at high temperatures

PERIODICAL: Ogneupory, no. 5, 1962, 226-230

TEXT: The authors have developed a comparatively simple and generally accessible method of, and designed the equipment for, measuring the electrical conductivity of solid substances up to 1600°C and more in a controlled gas medium. For this purpose they used an equal-arm alternating current decade bridge with frequencies of 1000 and 2000 cps, the МОМ-3(Е6-2) (MOM-3 (Ye6-2)) for direct current measurements, an Rh+PtRh (30%Rh) thermocouple, and the ПМС-48 (PMS-48) potentiometer with an М17/1 (M17/1) mirror galvanometer. The samples were pure oxides in the shape of disks, 6-10 mm diam and 0.5 - 1.5 mm thick. Analytically, the dependence of the thermo-emf of this thermocouple in the range from 0 to 1700°C may be represented as follows:

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$\mathcal{E}=0.73t - 3.4 \cdot 10^{-4}t^2 + 1.46 \cdot 10^{-6}t^3 - 3.62 \cdot 10^{-10}t^4 \mu v$. Above 1500°C $\mathcal{E}$ may be expressed as: $\mathcal{E} = 4.909t - 3942 \mu v$. The authors' method was also used for studying the conversions in aluminous materials on heating in various gas media. The furnace, is described in detail. It is fixed to a stand, has two heating coils, and which can be moved in a vertical direction by means of a counterweight. There are 4 figures. The English-language reference reads as follows: A. Lempicki Proc. Phys. Soc. (London), No.400 B, 1953, 66.

ASSOCIATION: Khimiko-tekhnologicheskiy institut im. Mendeleyeva (Institute of Chemical Technology imeni Mendeleyev)

Card 2/2

S/080/62/035/006/001/013
D204/D307

AUTHORS: Budnikov, P.P., Keshishyan, T. N. and Volkova, A. V.

TITLE: Kinetics of the formation of mullite from technical alumina and silica

PERIODICAL: Zhurnal prikladnoy khimii, v. 35, no. 6, 1962, 1171-1175

TEXT: The present work was carried out to determine the temperature conditions for the formation of mullite in bodies containing vein quartz or silicic acid and technical alumina fired at 1100°C, the temperature at which mullitization first begins and the quantity of mullite formed at various temperatures. The starting materials were finely powdered and were cold-pressed into discs corresponding in composition to $3Al_2O_3 \cdot 2SiO_2$. The samples were then heated for 2.5 hours in a horizontal tubular furnace with an axial temperature gradient (from 200 to 1600°C) so that a series of temperatures could be tested in a single firing. Examination

Card 1/2

KESHISHYAN, T.N.; EPEL'BAUM, M.B.

Relation between the mechanical properties of glass and its crystallization. Trudy MKHTI no.27:150-155 '59. (MIRA 15:6)
(Glass--Analysis)

KESHISHYAN, T.N.; BEREZHNOY, A.I.

Investigating the character of glass break under the impact bending by the rapid filming method. Trudy MKHTI no.27:137-149 '59. (MIRA 15:6)

(Glass research)

BUDNIKOV, P.P.; KESHISHYAN, T.N.; YANOVSKIY, V.K.

Methods of measuring the electric conductivity of ceramic materials at high temperatures. Ogenupory 27 no.5:226-230 '62. (MIRA 15:7)

1. Khimiko-tekhnologicheskiy institut im. Mendeleyeva.
(Electric conductivity—Measurement)
(Ceramic materials—Electric properties)

BUDNIKOV, P.P.; KESHISHYAN, T.N.; VOLKOVA, A.V.

Kinetics of formation of mullite from technical alumina and silica. Zhur.prikl.khim. 35 no.6:1171-1175 Je '62. (MIRA 15:7)

(Mullite) (Alumina) (Silica)

BUDNIKOV, P.P.; AZAROV, K.P.; KESHISHYAN, T.N.

Crystallization of perlite-based glass. Ukr. khim. zhur. 29 no.11:1215-1219 '63. (MIRA 16:12)

L 12644-63 EWP(q)/EWT(m)/BDS AFFTC/ASD WH

ACCESSION NR: AP3002703 S/0080/63/036/005/1064/1068

AUTHOR: Budnikov, P. P.; Keshishyan, T. N.; Volkova, A. V. 54

TITLE: Effect of small additions on kinetic process of mullite formation at reduced temperatures

SOURCE: Zhurnal prikladnoy khimii, v. 36, no. 5, 1963, 1064-1068

TOPIC TAGS: mullite formation, ceramics

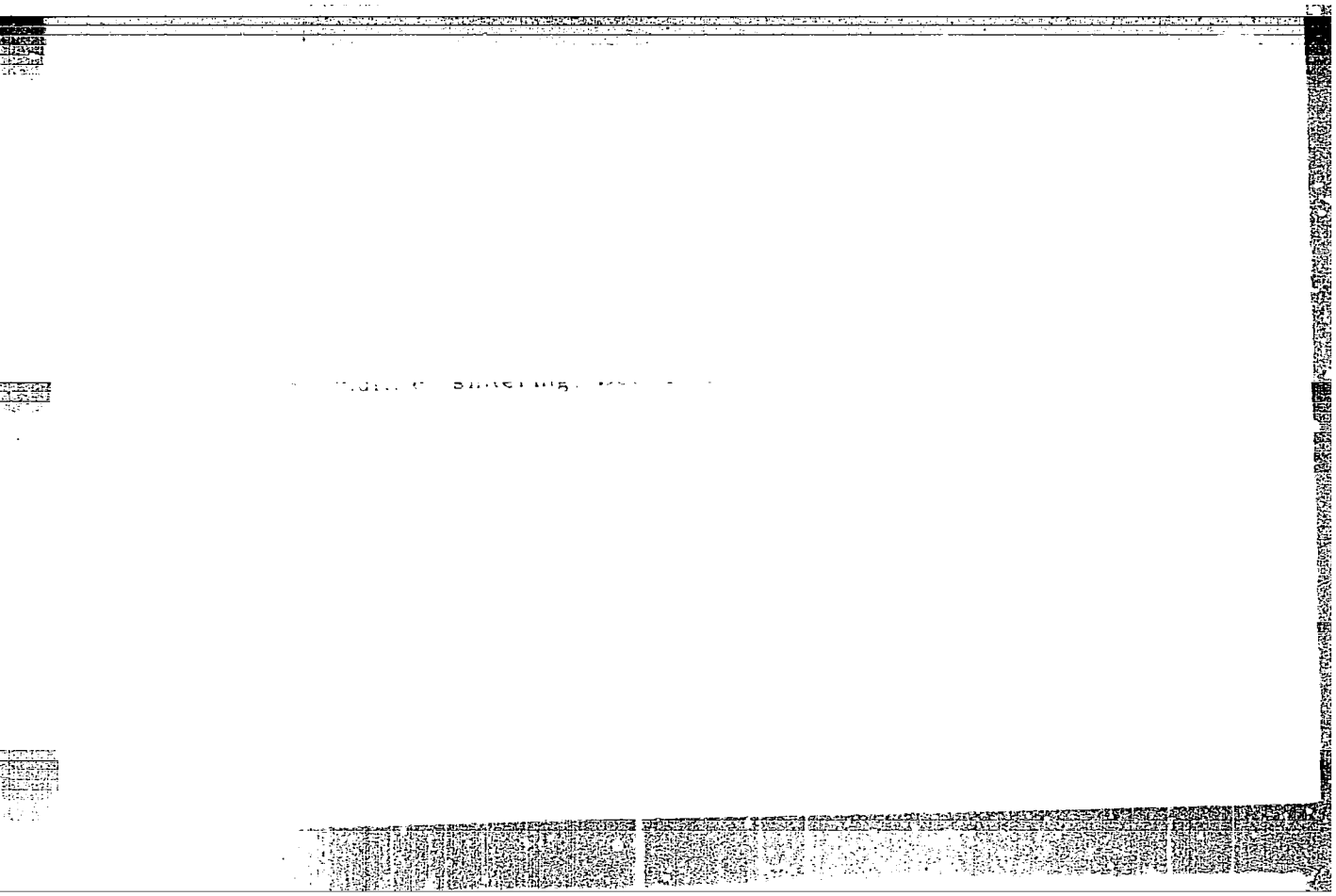
ABSTRACT: Mullite $3Al_2O_3 \cdot 2SiO_2$, the most important alumosilicate mineral of ceramic production, was studied to determine the effects of ten additions of various cations with ionic radii from 0.20 to 1.43 Angstroms. It was found that the first crystal phase is Al_2O_3 (over 850C). Introductions of additions of various cations changes this process. Mullite develops above 1140C suggesting that the temperature of the start of the process of mullite formation is below this boundary. Additions of cations of Group 2 of the periodic table considerably accelerates mullite formation. Elements of Group 8 of the periodic table (Fe sup 3 plus and Ni sub 2 plus) retard mullite formation. Orig. art. has: 2 tables.

ASSOCIATION: none

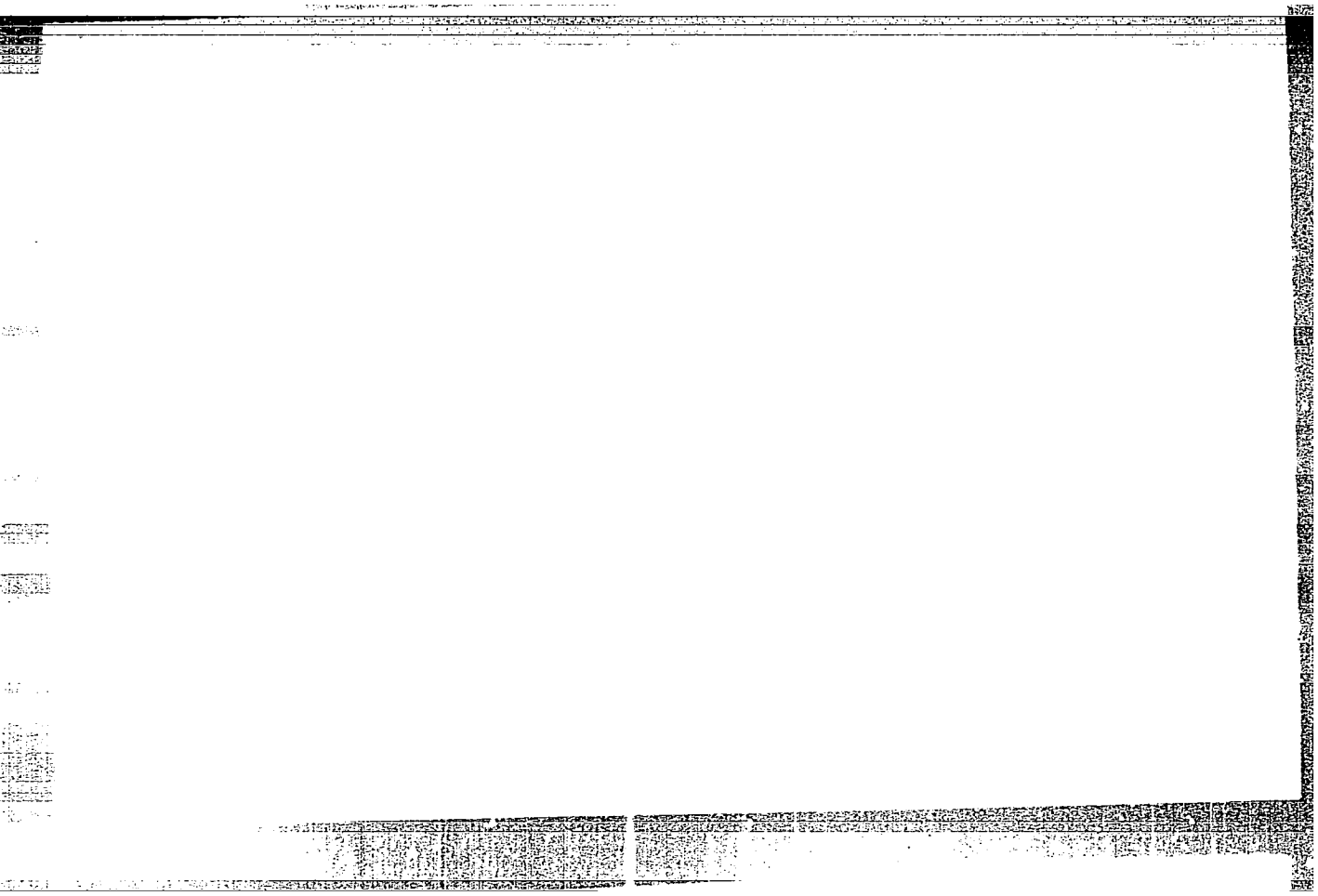
SUBMITTED: 02 Oct 62 DATE ACQ: 24 Jul 63 ENCL: 00

SUB CODE: CH NO REF SOV: 009 OTHER: 004

Card 1/1



APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000721610010-3"



APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000721610010-3"

BUDNIKOV, Petr Petrovich, zasl. deyatel' nauki i tekhniki RSFSR i Ukrainskoy SSR, prof., doktor tekhn. nauk; MATVEYEV, M.A. prof. otv. red.; BULAVIN, I.A., prof., red.; BUTT, Yu.M., prof., red.; KESHISHYAN, T.N., prof., red.; KUKOLEV, G.V., prof., red.; ROYAK, S.M., prof., red.

[Chemistry and technology of building materials and ceramics] Khimiia i tekhnologiia stroitel'nykh materialov i keramiki. Moskva, Stroiizdat, 1965. 607 p. (MIRA 18:12)

16.3000, 16.4000

20720
S/022/60/013/006/001/005
C 111/ C 333

AUTHOR: Keshishyan, Zh. N.

TITLE: On analytic continuation of generalized factorial series

PERIODICAL: Akademiya nauk Armyanskoy SSR. Izvestiya. Seriya fiziko-matematicheskikh nauk, v. 13, no. 6, 1960, 3-17

TEXT: The series

$$a_0+a_1\frac{\alpha_1}{z+\alpha_1}+a_2\frac{\alpha_1\alpha_2}{(z+\alpha_1)(z+\alpha_2)}+\ldots, \qquad (1)$$

where a_n are complex numbers, and the α_n satisfy the conditions

$$\left.\begin{aligned} &0=\alpha_0<\alpha_1<\alpha_2<\ldots, \quad \lim_{n\to\infty}\alpha_n=\infty \\ &\sum_{n=1}^{\infty}\frac{1}{\alpha_n}=\infty, \qquad \sum_{n=1}^{\infty}\frac{1}{\alpha_n^2}<\infty \end{aligned}\right\} \qquad (A)$$

Card 1/7

On analytic continuation . . .

is denoted as generalized factorial series.

As convergence abscissa of (1) the author denotes a number λ with the property that the series (1) converges for Re $z > \lambda$ and diverges for Re $z < \lambda$.

Let denote:

$$A_n = A_n^{(0)} = \sum_{k=0}^{n} a_k \qquad (n = 0,1,2,\ldots),$$

$$A_n^{(p)} = \sum_{k=p-1}^{n} A_k^{(p-1)} \frac{\prod_{m=p}^{k+p-1} (\alpha_m - \alpha_{p-1})}{\prod_{m=p+1}^{k+p} (\alpha_m - \alpha_p)}$$

$(p=1,2,3,\ldots;\ n = p-1,\ p,\ p+1,\ldots),$

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20720
S/022/60/013/006/001/005
C 111/ C 333

On analytic continuation . . .

Theorem 1: Assume that the generalized factorial series

$$f(z)=a_0\frac{1}{z}+a_1\frac{\alpha_1}{z(z+\alpha_1)}+a_2\frac{\alpha_1\alpha_2}{z(z+\alpha_1)(z+\alpha_2)}+\dots \qquad (2.1)$$

has a nonnegative convergence abscissa λ .

Then: 1. The series

$$g(z)=\sum_{n=p}^{\infty}\bar{A}_n(p)\frac{\prod_{k=p+2}^{n+p+1}\alpha_k}{\prod_{k=p+1}^{n+p+1}(z+\alpha_k)} \qquad (2.2)$$

where

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On analytic continuation . . .

$$\overline{A}_n(p) = A_n(p) \frac{\prod_{k=p+1}^{n+p} (\alpha_k - \alpha_p)}{\prod_{k=p+2}^{n+p+1} \alpha_k}$$

has the convergence abscissa $\lambda_{p+1} \leqq \lambda$.

2. Everywhere in the half plane Re $z > h$ it holds

$$f(z) = Q_p(z) + g(z) \qquad (2.3)$$

where

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On analytic continuation . . .

$$Q_p(z) = A_0 \frac{1}{z+\alpha_2} + A_1^{(1)} \frac{\alpha_3-\alpha_2}{(z+\alpha_3)(z+\alpha_4)} + \ldots + A_{p-1}^{(p-1)} \frac{\prod_{k=p+1}^{2p-1}(\alpha_k-\alpha_p)}{\prod_{k=p+1}^{2p}(z+\alpha_k)} \quad (2.4)$$

Theorem 2: If (2.1) has a nonpositive convergence abscissa λ, then:

1. The series

$$g(z) = \sum_{n=p}^{\infty} \tilde{A}_n^{(p)} \frac{\prod_{k=p+2}^{n+p+1}(\alpha_k+\lambda-\delta)}{\prod_{k=p+1}^{n+p+1}(z+\alpha_k)} \quad (2.10)$$

where

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$$\bar{A}_n^{(p)} = \hat{A}_n^{(p)} \frac{\prod_{k=p+1}^{n+p} (a_k - a_p)}{\prod_{k=p+2}^{n+p+1} (a_k + \lambda - \delta)}, \qquad \hat{A}_n^{(p)} = \sum_{k=p-1}^{n} \hat{A}_k^{(p-1)} \frac{\prod_{m=p}^{k+p-1} (a_k - a_{p-1})}{\prod_{m=p+1}^{k+p} (a_k - a_p)},$$

$$\hat{A}_n^{(0)} = \sum_{k=0}^{n} \frac{a_k}{\lambda - \delta} \prod_{m=1}^{k} \frac{a_m}{a_m + \lambda - \delta},$$

δ is an arbitrary positive number, has a convergence abscissa $\lambda'_{p+1} \leqq \lambda$.

2. In the half plane Re $z > \lambda$ it holds $f(z) = Q_p^*(z) + g(z)$, where

Card 6/7

On analytic continuation . . .

S/022/60/013/006/001/005
C 111/ C 333

$$Q_p^*(z)=\hat{A}_o^{(0)}\frac{1}{z+\alpha_2}+\hat{A}_1^{(1)}\frac{\alpha_3-\alpha_2}{(z+\alpha_3)(z+\alpha_4)}+\ldots+\hat{A}_{p-1}^{(p-1)}\frac{\prod_{k=p+1}^{2p-1}(\alpha_k-\alpha_p)}{\prod_{k=p+1}^{2p}(z+\alpha_k)}.$$

The author thanks G. V. Badalyan for the subject and for advices.

There are 3 Soviet-bloc references.

ASSOCIATION: Institut matematiki i mekhaniki AN Armyanskoy SSR
(Institute of Mathematics and Mechanics of the Academy of Sciences Armyanskaya SSR)

SUBMITTED: March 24, 1960

Card 7/7

KEOSHISHYAN, Zh.N.

Some criteria of normality of families of analytic functions.
Izv.AN Arm.SSR.Ser.fiz.-mat.nauk 15 no.2:45-67 '62. (MIRA 15:4)

1. Institut matematiki i mekhaniki AN Armyanskoy SSR.
(Functions, Analytic)

KESHISHYAN, Zh.N.

Some problems linked with convergent polynomial sequences. Dokl. AN Arm. SSR 39 no. 3:129-132 '64. (MIRA 18:1)

1. Institut matematiki i mekhaniki AN Armyanskoy SSR. Predstavleno akademikom AN ArmSSR M.M.Dzhrbashyanom.

USSR/Human and Animal Physiology - Internal Secretion. T
The Sex Glands

Abs Jour : Ref Zhur Biol., No 3, 1959, 13065

Author : Keshokova, M.P.

Inst : Kabardinsk Scientific Research Institute

Title : Influence of Low Frequency Vibrations on Menstrual Function.

Orig Pub : Tr. Kurorta Nal'chki, Kabardinsk, n.-i. in-t, 1956, 2, 119-186

Abstract : 47.4% of the female workers, who were subjected to occupational vibrations (V), showed a disturbance of the menstrual cycle; those who were not subjected to vibrations showed only 7%. The daily action of vibrations of 12 - 15 hertz units for 1 - 3 hours for a period of 1 month produced in 70% of sexually mature rats a

Card 1/2

USSR/Human and Animal Physiology - Internal Secretion. T

KESHOKOVA, M.P., kand. med. nauk

Surgery preserving the uterus in atcnic hemorrhage. Akush. i gin. 40 no.2:120-121 Mr-Ap '64. (MIRA 17:11)

1. Kafedra akusherstva i ginekologii (zav. - dotsent S.Ya. Ioffe) Severo-Osetinskogo meditsinskogo instituta, Ordzhonikidze.

HANKISS, Janos, dr.; KESHTHELYI, Mihaly, dr.

Combined histamine and antimicrobial therapy of chronic pneumonia.
Tuberkulozis 13 no.10:300-302 O '60.

1. A Debreceni Orvostudomanyi Egyetem I. sz. Belklinikajanak (igazgato: Fornet Bela dr. egyetemi tanar) kozlemenye.
(HISTAMINE ther)
(PNEUMONIA ther)
(ANTITUBERCULAR AGENTS ther)

ACC NR: AT7004237 (N) SOURCE CODE: UR/3061/66/000/022/0194/0201

AUTHOR: El'mesov, A. M.; Khulamkhanov, V. Kh. (Deceased); Keshtov, M. M.

ORG: None

TITLE: Compressibility of snow and methods used for its investigation

SOURCE: Tiflis. Zakavkazskiy nauchno-issledovatel'skiy gidrometeorologicheskiy institut. Trudy, no. 22, 1966. Voprosy gidrometeorologii (Problems of hydrometeorology), 194-201

TOPIC TAGS: snow, meteorologic instrument, meteorologic observation, elastic deformation, compressive stress

ABSTRACT: An instrument designed for investigating the compressibility of snow is described and preliminary results obtained from its use are cited. The undesignated instrument is portable and made almost entirely of duraliminum, weighing but 2.5-3 kg without weights. It can be used under field conditions. Methods used to determine the relative deformation of snow from external stress, and deformation as a function of initial density under identical loads, are described. The fact that much of the energy expended in compressing the snow goes to extracting air from pores within the snow, and for elastic deformation, is cited as one for consideration when analyzing problems relating to the compressibility of snow. Orig. art. has: 3 formulas and 5 figures.

SUB CODE: 04/SUBM DATE: None/ORIG REF: 001

Card 1/1

KESIAKOV, D.

TECHNOLOGY

Periodical LEKA PROMISHLENOST. TEKSTIL. Vol. 7, no. 7, 1958.

KESIAKOV, D.; GATEV, T.: Influence of pressure and the elastic clothing on the degree of wringing out and the productivity of the leviathan washers. p. 16 .

Monthly List of East European Accessions (EEAI) LC, Vol. 8, no. 3. March 1959, Uncl.

KESIAKOV, D. Kh.

DOKOV, V. K., CHAK'ROV, E. L., KESIAKOV, D. Kh.

Study of 400 hemograms of farmers from the Stalin district. Izv. med. inst., Sofia 1:125-137 1951. (CIML 21:3)

1. Assistant for Dokov and Chakurov; District Physician for Kesyakov. 2. Morphology Section (Head — Corresponding Member A. Khadzhiolov) of the Institute of Experimental Medicine of the Academy of Sciences (Director —Academician D. Orakhovats) and the Department of Histology and Embryology of V. Chervenkov Medical Academy (Head — A. Khadzhiolov).

KESIC, B.

Patho-anatomical verification of health and disease. Lijec. vjes. 84 no.3:271-272 '62.
(PATHOLOGY)

APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000721610010-3"

RISTIC, B.

In memoriam Prof. Dr. Ikija Djuricic. Arh. hig. rada 16 no.1: 1-2 '65.

KESIC, Branko

Problems and organization of postgraduate education. Rad. med. fak. Zagreb 8 no.1:91-102 '60.

(EDUCATION MEDICAL)

SARIC, Marko, dr.; PADOVAN, Ivo, dr.; KESIC, Branko, dr.

The problem of medical research in Croatia. Lijecn. vjecn. 87 no.5: 501-509 My '65.