

L 51528-65 SWF(m)/ENG(m)/SWP(j)/T Pc-4 RWH/RM

ACCESSION NR: AP9019309

REF ID: A61657000/0006/0070/0070

678.744.72-9

AUTHOR: Burinskiy, S. V.; Vol'f, L. A.; Meos, A. I.

TITLE: A method for producing an electron exchanger based on polyvinyl alcohol fibers, Class 39, No. 170681

SOURCE: 'Byulleten' izobreteniy i tovarnykh znakov, no. 9, 1965, 70

TOPIC TAGS: resin, polyvinyl alcohol, synthetic fiber, formaldehyde, hydroquinone, inorganic acid, catalysis

ABSTRACT: This Author Certificate introduces a method for producing an electron-exchanging resin based on polyvinyl alcohol fibers by treating the fibers with formaldehyde and hydroquinone in the presence of an inorganic acid catalyst.

The electron-exchanging capacity of the resin is increased by using orthophosphoric acid as the catalyst.

ASSOCIATION: none

Card 1

L 51528-65

ACCESSION NR: AP5015309

SUBMITTED: 28Mar64

ENCL: 00

SUB CODE: DC, 00

NO REF: 000

OTHER: 000

L 2947-66 EPA(s)-2/EWT(m)/EWP(j) RM

ACCESSION NR: AP5025005

UR/0286/65/000/016/0064/0064

AUTHOR: Meos, A. I.; ⁴⁴⁵Vol'f, L. A.; ⁴⁴⁵Kirilenko, Yu. K.

42
B
15

TITLE: Chemical treatment method for poly(vinyl alcohol) ^{7.44.56} Class 29, No. 173876

SOURCE: Byulleten' izobreteniy i tovarnykh znakov, no. 16, 1965, 64

TOPIC TAGS: polyvinyl alcohol, organic semiconductor, ¹⁵semiconducting polymer, dehydration

ABSTRACT: An Author Certificate has been issued for a chemical treatment method for poly(vinyl alcohol) involving dehydration on heating in an inert medium. To impart water resistance, thermal stability, semiconducting and other special properties to poly(vinyl alcohol) end products, the dehydration is carried out in a heterogeneous medium with dehydrating agents such as acid salts of alkali metals or benzenesulfonic acid. [SM]

ASSOCIATION: none

SUBMITTED: 23Jun64

ENCL: 00

SUB CODE: 0066

NO REF SOV: 000

OTHER: 000

ATD PRESS: 110

Card 1/1 BYK

VOL'F, L.A., dotsent

Imparting antibacterial properties to fibers. Tekst. prom.
25 no.8:9-11 Ag '65. (MIRA 18:9)

1. Leningradskiy institut tekstil'noy i legkoy promyshlennosti
imeni Kirova.

MECE, A.I.; VOL'F, I.A.; CHEN YU-CHU [Chang Yu-chu]

Obtaining water-resistant polyvinyl alcohol fibers by means of the esterification of maleic anhydride. Izv.vys.uchet.zav., tekhn.tekst. prom. no.3:108-112 '63. (MIRA 18:8)

1. Leningradskiy institut tekstil'noy i legkoj promyshlennosti imeni Kirova.

MEOS, I., doktor tekhn. nauk; VOL'F, L.A., kand. khim. nauk;
LEPIN, A.E., red.

[New synthetic fibers; production of fibers from polyvinyl
alcohol] Novye sinteticheskie volokna; proizvodstvo vo-
lokon iz polivinilovogo spirta. Leningrad, Lenizdat, 1965.
50 p. (MIRA 18:9)

L 17720-66 EWP(j)/EWT(m)/ETC(r)/EWG(m)/T RM/DS

ACC NR: AP6003414

(A)

SOURCE CODE: UR/0190/66/008/001/0065/0068

AUTHORS: Burinskiy, S. A.; Vol'f, L. A.; Meos, A. I.

44

ORG: Leningrad Institute of Textile and Light Industry im. S. M. Kirov
(Leningradskiy Institut tekstil'noy i legkoy promyshlennosti)

6.4.65

TITLE: Electron exchangers based on hydroxyl-containing fibers

SOURCE: Vysokomolekulyarnyye soyedineniya, v. 8, no. 1, 1966, 65-68

TOPIC TAGS: polymer, copolymer, graft copolymer, polycondensation, phenolic plastic, phenolformaldehyde, synthetic fiber

ABSTRACT: A method for the production of electron-exchange fibers by the graft copolycondensation of polyhydroxyl phenols and formaldehyde with hydroxyl-containing fibers was developed. The experimental procedure followed here was similar to that described by R. Tsereza (Blok-i privityye sopolymery, Izd. Mir, M., 1964). The experimental results are tabulated. It was found that the redox capacity of the fibers was 1.5 to 4 mg - equiv/g. From structure studies of the graft polymers, it is concluded that the polymer chains are partially cross-linked. The redox fibers were found to possess a considerable resistance to acid and alkalis. Orig. art. has: 1 table.

SUB CODE: 0711/ SUBM DATE: 12Feb65/ ORIG REF: 003/ OTH REF: 001

UDC: 678.01:53

Card 1/1 nst

2

ACC NR: AP6025618 (N) SOURCE CODE: UR/0413/66/000/013/0075/0075

INVENTORS: Vol'f, L. A.; Meos, A. I.; Inkina, S. A.

ORG: none

TITLE: A method for obtaining ion-exchanging fibers and fabrics. Class 39, No. 183375

SOURCE: Izobreteniya, promyshlennyye obratzay, tovarnyye znaki, no. 13, 1966, 75

TOPIC TAGS: ion exchange, fiber, fabric, polyvinyl, alcohol, aldehyde

ABSTRACT: This Author Certificate presents a method for obtaining ion-exchanging fibers and fabrics by acetylyzing with aldehydes the fibers and fabrics based on polyvinyl alcohol. To obtain ion-exchanging materials, aldehydes containing amino groups or pyridone cycles are used as aldehydes. The acetylyzed haloid product is then alkylated and treated with a base.

SUB CODE: 11/ SUBM DATE: 14Dec61

07/

Card 1/1

UDC: 661.183.12:677.494.744.72:677.862.22

BURINSKIY, S.A.; VOL'F, L.A.; MEOS, A.I.

Electron exchangers based on hydroxyl- containing. Vysokom. soed.
8 no. 1:65-68 Ja '66 (MIRA 19:1)

1. Leningradskiy institut tekstil'noy i legkoy promyshlennosti
imeni Kirova. Submitted February 12, 1965.

I 21168-66 EWT(m)/ENP(j)/T/ETC(m)-6 WW/RM
ACC NR: AP6009562

SOURCE CODE: UR/0413/66/000/005/0154/0154

INVENTOR: Meos, A. I.; Vol'f, L. A.; Kirilenko, Yu. K.

ORG: none

TITLE: Method for the chemical treatment of poly(vinyl alcohol). Class 29, No. 173876

SOURCE: Izobreteniya, promyshlennyye obraztsy, tovarnyye znaki, no. 5, 1966, 154

TOPIC TAGS: organic semiconductor, semiconducting polymer, polyvinyl alcohol, heat resistant polymer, water resistant polymer

ABSTRACT: An Author Certificate has been issued for a chemical treatment method for poly(vinyl alcohol) and end-products from it, involving dehydration on heating in an inert medium. To impart water- and heat-resistance, and semiconducting^{1b} and other special properties to the poly(vinyl alcohol) end-products, dehydration is carried out in a boiling solvent with acid salts of alkali metals or benzenesulfonic acid. [SM]

SUB CODE: 11, 20/ SUBM DATE: 23Jun64/ ATD PRESS: 4222

Card 1/1 OK

L 4/23-66 EWT(m)/EXP(j)/T IJP(c) WW/RM
ACC NR: AP6015649 (A) SOURCE CODE: UR/0413/66/000/009/0059/0059

30
B

INVENTOR: Kirilenko, Yu. K.; Vol' f, L. A.; Meos, A. I.

ORG: none

TITLE: Method for chemical treatment of polyvinyl alcohol.¹¹ Class 29, No. 181236¹⁵

SOURCE: Izobreteniya, promyshlennyye obraztsy, tovarnyye znaki, no. 9, 1966, 59

TOPIC TAGS: polyvinyl alcohol, tertiary amine, halogenation, chemical treatment

ABSTRACT: An Author Certificate has been issued for a method of chemical treatment of polyvinyl alcohol and its byproducts. To add nonflammability,¹⁵ anion-exchange capabilities, and antimicrobe properties,¹⁵ dehydrated polyvinyl alcohol or its byproducts are subjected to halogenation, followed by treatment with a tertiary amine such as a triethylamine. [Translation]

[NT]

SUB CODE: 07/ SUBM DATE: 12Apr65/

UDC: 678.744.72:66.093.6.094.403

Card 1/1

JS

L 41639-66 EWI(m)/EWP(J)/T IJP(c) WW/RM
ACC NR: AP6008273 (A) SOURCE CODE: UR/0080/66/039/002/0388/0393

AUTHOR: Kiselev, G. A.; Vol'F, L. A.; Meos, A. I.

ORG: Leningrad Institute of Textile and Light Industry imeni S. M. Kirov (Leningrad-skiy institut tekstil'noy i legkoy promyshlennosti)

TITLE: Inflammable polyvinyl alcohol fiber based on the reaction of PVA with di-methylol urea and tetramethylol phosphorous chloride

SOURCE: Zhurnal prikladnoy khimii, v. 39, no. 2, 1966, 388-393

TOPIC TAGS: synthetic fiber, polyvinyl alcohol, fire resistant material, CHEMICAL BONDING, ESTERIFICATION

ABSTRACT: An inflammable polyvinyl alcohol fiber is produced by an initial crosslinking with HO-CH₂-NH-C-NH-CH₂-OH (I) and subsequent reaction with (HOCH₂)₄PCl (II). (I) is prepared by a condensation reaction of urea:formaldehyde in a molar ratio of 1:2.5 in neutral or slightly alkaline solution at 60-70°C. In the esterification reaction between PVA fiber and (I), the fiber is placed in a solution of (I) and kept at 70°C for 30 min. The fiber is then centrifuged (5000 rpm) for 5 min and subsequently heated at 155-160°C for 8-10 min. The extent of centrifugation affects the degree of esterification of the fiber. It was found that the greater the extent of centrifugation, the smaller the degree of esterification. The resulting ester bonds are stable at pH from 6-12 but are unstable in acid solution, breaking down at pH equal to 3. In the

UDC: 547.361.2-126

Card 1/2

L 41539-66

ACC NR: AP6008273

second reaction, the esterified fiber is saturated with an aqueous solution of 10 wt % of (II) and triethanolamine (to sustain a neutral solution) at 70°C for 30 min. The fiber is then washed and dried in air (130°C) for 30 min. Analyses are made for nitrogen, hydroxyl group, and phosphorous content of the fiber. The crosslinked fiber is found to be stable in boiling water and other reagents. Containing at least 2 wt % phosphorous, it is found to be inflammable. On the basis of the analytical data, 80% of the resulting fiber is thought to be doubly bonded to two nitrogen atoms as in the first formula above, while 20% appears to be triply bonded as in the second formula. Orig. art. has: 3 figures, 1 table.

SUB CODE: 11/

SUBM DATE: 01Dec64/

ORIG REF: 007/

OTH REF: 003

Card 2/2 of

L 42034-66 EWT(m)/ENP(J)/T IJF(c) LW/RM

ACC NR: AP6011223 (A) SOURCE CODE: UR/0413/66/000/006/0060/0060

INVENTOR: Meos, A. I.; Vol' f, L. A.; Kirilenko, Yu. K.; Girnyuk, V. V.

28
B

ORG: none

TITLE: Method of chemical processing of polyvinyl alcohol. Class 29, No. 179877

16

SOURCE: Izobreteniya, promyshlennyye obraztsy, tovarnyye znaki, no. 6, 1966, 60

TOPIC TAGS: polyvinyl alcohol, monomer, acrylonitrile, chemical treatment

ABSTRACT: An Author Certificate has been issued for a method of chemical processing of polyvinyl alcohol. To impart new properties such as a light resistance dehydrated polyvinyl alcohol and its byproducts are treated with dienophilic monomers such as an acrylonitrile. [Translation] [NT]

SUB CODE: 07/ SUBM DATE: 12Oct64/

Card 1/1 af

UDC: 677.494.744.72:677.864.512.15:547.339.211

L 30017-58
ACC NR: AP6011017

(A)

SOURCE CODE: UR/0080/66/039/003/0664/0668

AUTHOR: Polyanskaya, V. I.; Mees, A. I.; Vol'f, L. A.

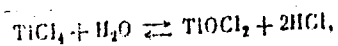
ORG: Leningrad Institute of the Textile and Light Industry imeni S. M. Kirov
(Leningradskiy institut tekstil'noy i legkoy promyshlennosti)

TITLE: Study of esterification of polyvinyl alcohol fibers with titanium tetrachloride

SOURCE: Zhurnal prikladnoy khimii, v. 39, no. 3, 1966, 664-668

TOPIC TAGS: polyvinyl alcohol, titanium compound, synthetic fiber, esterification

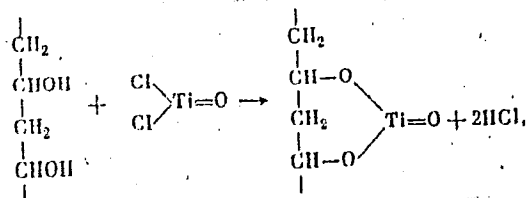
ABSTRACT: The article describes the waterproofing polyvinyl alcohol (PVA) fiber with titanium tetrachloride and examines the properties of titanium-containing fibers. Esterification of PVA fibers with $TiCl_4$ is represented as follows:



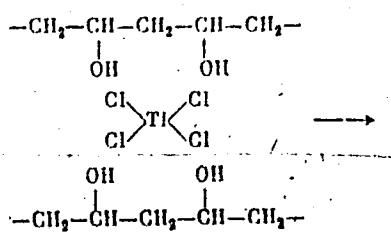
Card 1/3

UDC: 66.095.13 + 547.361.2-126

ACC NR: AP6011017



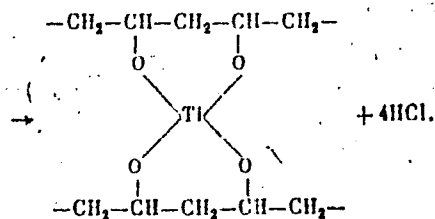
This may be associated with cross-linking between chains:



Card 2/3

L 39317-46

ACC NR: AP6011017



PVA fibers were treated with TiCl_4 in an aqueous bath containing sulfuric acid as catalyst. The titanium content of the fiber was found to increase with the TiCl_4 content in the bath. A 2.5-3 wt % content (4.7-5.7 mole % content) of Ti in the fiber ensures the required water repellency and is optimal. The optimum acid concentration is 7-12%. Orig. art. has: 2 figures.

SUB CODE: 11,07/ SUBM DATE: 12Dec64/ ORIG REF: 004/ OTH REF: 007

Card 3/3 *MLP*

ACC NR: AP7000021 (A,N) SOURCE CODE: UR/0080/66/039/011/2608/2609

AUTHOR: Vol'f, L. A.; Khokhlova, V. A.; Kotetskiy, V. V.; Meos, A. I.
Konev, Yu. Ye.ORG: Leningrad Institute of the Textile and Light Industry im. S. M.
Kirov (Leningradskiy institut tekstil'noy i legkoy promyshlennosti)TITLE: Preparation of antimicrobial polymeric materials by ion
exchange with antiseptics

SOURCE: Zhurnal prikladnoy khimii, v. 39, no. 11, 1966, 2608-2609

TOPIC TAGS: antimicrobial plastic, antiseptic, polyvinyl alcohol

ABSTRACT: A method of imparting antimicrobial properties to polymeric materials, involving the introduction of antiseptics into these materials by means of ion exchange, has been developed. The polymeric materials used were poly(vinyl alcohol) and viscose fibers, but the method is said to be equally applicable for imparting antimicrobial properties to plastic films, plastic articles, and raw and vulcanized rubbers. Poly(vinyl alcohol) was first modified by previously describe methods so as to attach sulfonic or carboxyl groups to it, but the viscose, which contains some carboxyl groups, was used as is. The fibers were treated with the antiseptics silver, streptomycin.

Card 1/2

UDC: 677.862.531

ACC NR: AP7000021

colimycin, quinosol, brilliant green, trypaflavine, rivanol, albucid, or streptocid. The antiseptics were applied as 0.1 M aqueous solutions except for the high-molecular-weight antiseptics (streptomycin, brilliant green) which were used in 1×10^{-3} — 2×10^{-3} M aqueous solutions. The microbiological activity of the samples was tested against bacteria (Staphilococcus aureus) and molds (Candida albicans and Trichophyton gypseum) at 37C for 20—24 hr. Test results are given in tabular form in the source. Quinosol-treated fibers were active against all three microorganisms. Most of the fibers withstood 10 or more washings with OP-10 detergent without losing their microbiological activity. —

SUB CODE: 07, 06/ - SUBM DATE: 19Apr66/ ORIG REF: 006/ ATD PRESS: 51

Card 2/2

ACC NR: AP7002970

(A)

SOURCE CODE: UR/0413/66/000/024/0050/0050

INVENTOR: Orlov, N. F.; Vol'f, L. A.; Androsova, M. V.; Kirilenko, Yu. K.

ORG: none

TITLE: Preparative method for poly(vinyl alcohol)-based fireproof fibers, films or fabrics. Class 29, No. 189515

SOURCE: Izobreteniya, promyshlennyye obraztsy, tovarnyye znaki, no. 24, 1966, 50

TOPIC TAGS: polyvinyl alcohol, fire resistant material, polymer

ABSTRACT: An Author Certificate has been issued for a method of preparing poly(vinyl alcohol)-based fireproof fibers, films or fabrics. The method involves treatment of dehydrated fibers, films or fabrics with dialkyl hydrogen phosphites.

SUB CODE: 11/ SUBM DATE: 12Jul65/ ATD PRESS: 5112

Card 1/1

UDC: 677.494.744.72:66.093.6

BYKHOVSKAYA, Polina Markovna; VOL'F, Lazar' Grigor'yevich; YUR'YAN, E.,
red.; MIRONOV, A., tekhn.red.

[New ideas in retail trade; from the practice of Riga stores]
Novye formy trgovli; iz opyta raboty rzhskikh magazinov.
Riga, Letviiskoe gos.izd-vo, 1959. 81 p.

(MIRA 14:1)

(Riga--Retail trade)

VOLF, M.; BERAN, M.

"Recalculation of the thermal dilatation coefficient for another temperature interval.

p. 272."

SILIKATY. Praha, Czechoslovakia. Vol. 2, no. 3, 1958.

Monthly list of East European Accessions (EEAI), LC, Vol. 8, No. 6, Jun 59, Unclas.

VOLF, M.

Most recent general discoveries for cleansing glass, p. 77, SKLAR
A KERAMIK (Ministerstvo lehkeho prumyslu) Praha, Vol. 4, No. 3,
Mar. 1954

SOURCE: East European Accessions List (EEAL) Library of Congress,
Vol. 4, No. 12, December 1954

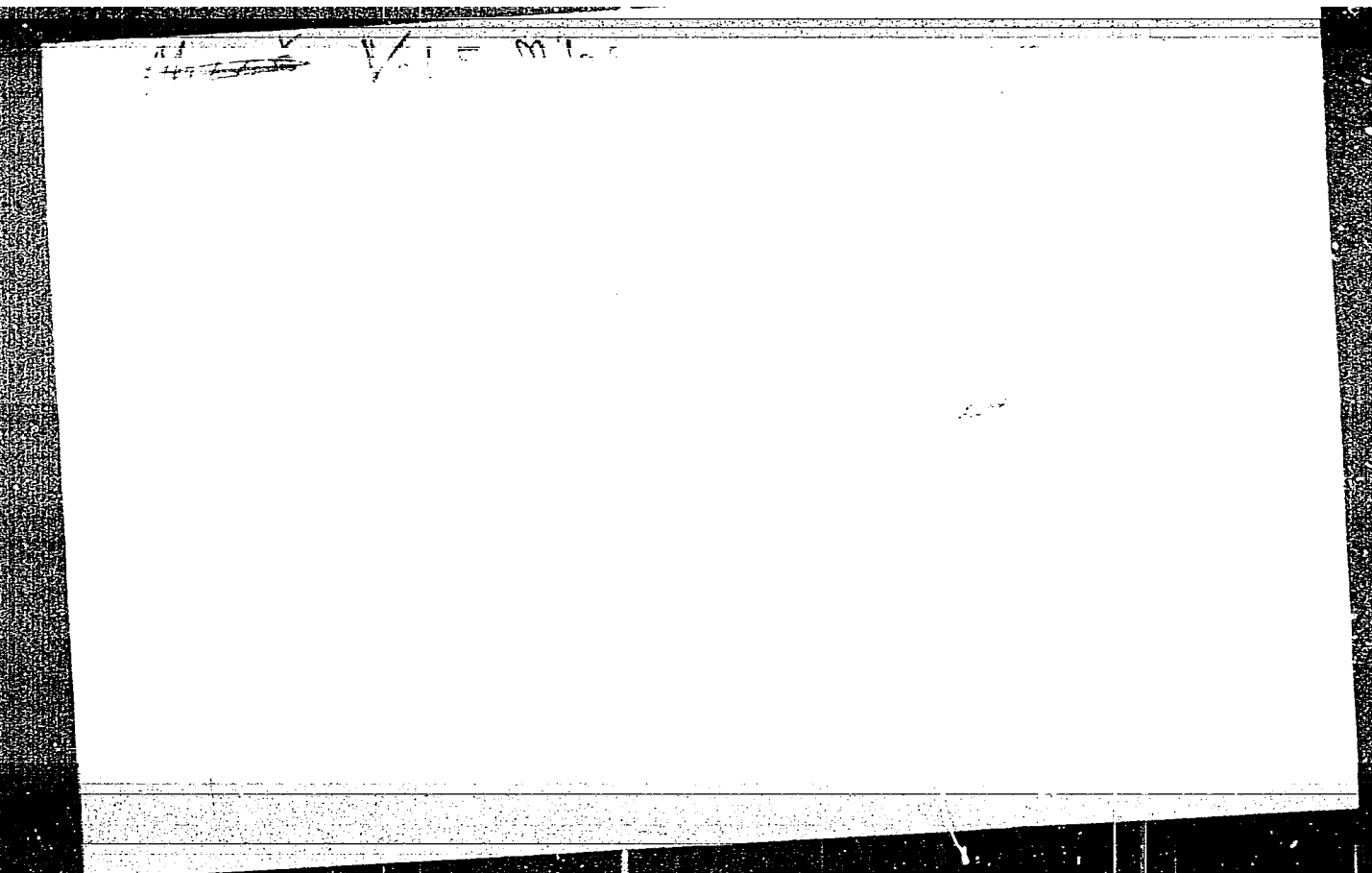
VOLF, Milos, dr.

Water glass. Zklar a keramik 12 no.8:252-255 Ag '62.

1. Spojene podniky Technicke sklo, Sazava nad Sazavou.

"APPROVED FOR RELEASE: 03/14/2001

CIA-RDP86-00513R001860420020-8



APPROVED FOR RELEASE: 03/14/2001

CIA-RDP86-00513R001860420020-8"

VOLF, M.

Cubic capacity and form of glass vessels, p. 292, SKLAR A KERAMIK
(Ministerstvo lehkeho prumyslu) Praha, Vol. 4, No. 11, Nov. 1954

SOURCE: East European Accessions List (EEAL) Library of Congress,
Vol. 4, No. 12, December 1956

VOLF, M.

Experience with quartz blocks in the Kavalier Glassworks, p. 184,
SKLAR A KERAMIK (Ministerstvo lehkeho prumyslu) Praha, Vol. 5,
No. 8, Aug. 1955

SOURCE: East European Accessions List (EEAL) Library of Congress,
Vol. 5, No. 12, December 1956

VOLF, M.

Introduction to the bill concerning standards for chemical resistance
of glass. p. 76. SKLAR A KERAMIK. (Ministerstvo lehkeho prumyslu)
Praha. Vol. 5, no. 11, Nov. 1955.

SOURCE: East European Accessions List, Vol. 5, no. 9, September 1956

VOLF, M.

SIMAX, the new Czechoslovak technical glass. p. 483. CZECHOSLOVENSKY
HORNÍK. (Ministerstvo paliv a Svaz zaměstnanců v hornictví) Praha.
Vol. 5, no. 11, Nov. 1955.

SOURCE: East European Accessions List, Vol. 5, no. 9, September 1955

VOLF, M.

Curling as part of the intensification of glass melting. p. 2

SKLAR A KERAMIK

Vol. 6, no. 1, Jan. 1956

Czechoslovakia

Source: EAST EUROPEAN LISTS Vol. 5, no. 7 July 1956

37516

Z/013/62/000/005/001/001
D006/D102

15.2.10
AUTHOR:

Volf, Miloš, Doctor

TITLE:

Elastic properties of glass

PERIODICAL:

Sklář a keramik, no. 5, 1962, 170-172

TEXT:

The additive method of calculating the elasticity modulus E and the modulus of shear G , as proposed by E.I. Kozlovskaya and A.A. Appen of the Leningrad Institute of Glass in 1960-1961, is explained and verified on Czechoslovak Sial, KS, S 13 and Pb glasses. The formula is

$$e = \frac{\sum f \cdot \text{mol}\% \text{ MeO}}{\sum \text{mol}\% \text{ MeO}} \quad (4)$$

where e is the elasticity modulus (E or G), f is the factor for 1 mol% of MeO, and mol% MeO is the molar percentage of the metal oxide. Appen's factor values for specific molar percentage ranges are given. The calculated values deviate from the measured ones within $\pm 10\%$, but Appen's factors are still more accurate than previous additive calculation methods

X

Card 1/2

Z/013/62/000/005/001/001
D006/D102

Elastic properties of glass

and can, therefore, be used for approximate determination of smaller corrections in the composition of a particular known glass. In glasses of simple composition, the addition factor for E depends on the ion radius r and the electron shell of the atom nucleus. In triades of the periodic system the dependence $E:r$ is linear. Ion deformability causes a reduction of the value E , but for the net-capable (Si-B) and net-qualified elements (Al-Ti) the modulus E rapidly increases with the increasing ion radius. The method finds application in modifying the composition of simple glasses to improve their cooling speed, heat resistance, and stresses caused by flow of hot water through glass tubes at room temperature. There are 2 figures and 2 tables.

ASSOCIATION: Sdružení podniků Technického skla (Association of Technical Glass Enterprises), Sázava nad Sázavou

Card 2/2

Volf, M.

Volf, M. Contributions of the 4th Glass Congress in Paris. (To be contd.) p. 58.

Vol. 7, no. 2, Feb. 1957

SKLAR A KERAMIK
TECHNOLOGY
Czechoslovakia

So. East European Accessions, Vol. 6, May 1957
No. 5

VOLF, M.

Volf, M.

Volf, M. Contributions of the 4th Glass Congress in Paris. (To be contd)
p. 91.

Vol. 7, no. 3, Mar. 1957
SKLAR A KERAMIK
TECHNOLOGY
Czechoslovakia

So. East European Accessions, Vol. 6, May 1957
No. 5

VOLF, M.

✓ Sealing glass - M. Volf (*Sci. Shid. Kevam.*, 1953, 3, No. 1, 5; *Glass*
M. Iba, 1953, 38, 422). Alloys containing Fe, Ni and Co have the same
general thermal expansions as W, Mo, and Pt but have the advantage
that they also match the increasing expansion of the glass at the
transformation temp. Suitable glasses contain SiO₂, B₂O₃, alkali
and a small amount of Al₂O₃. A high B₂O₃ content (24%) is
advantageous in that the glass has a transformation temp. of 450°
and seals very easily. The glasses Osrarn W2 and Corning C707
(high B₂O₃ and PbO, low alkali) also have low electrical power
losses.
J. A. SPGDEN.

MSD

VOLF, V.

Zinc oxide and its influence on the properties of glass.

p. 87 (Veda a Vyzkum v Prumyslu Sklarskem. No. 1, 1956, Praha, Czechoslovakia)

Monthly Index of East European Accessions (EEAI) I.C. Vol. 7, no. 2,
February 1958

VOLF, M.

Pyrex glass.

p. 287 (Sklar A Keramik) Vol. 7, no. 10, Oct. 1957, Praha, Czechoslovakia

SO: MONTHLY INDEX OF EAST EUROPEAN ACCESSIONS (EEAI) LC, VOL. 7, NO. 1, JAN. 1958

10
CZECHOSLOVAKIA / Forestry. Forest Crops.

K-5

Abs Jour: Ref Zhur-Biol., No 16, 1958, 72833.

Author : Volf, Miroslav.

Inst : ~~Not given.~~

Title : Experience in the Use of Soils Unsuitable to
Forests for the Production of Wood.

Orig Pub: Lesn. prace, 1956, 35, No 1, 4-8.

Abstract: The experience of a Haas forester is summarized regarding the afforestation of marshes of the upland localities in the Krushny Gory. A list of the species used is cited and the agricultural procedure of the plantings is described. Attention is turned to the effectiveness of the use of shelterbelts of birch, mountain alder and some other species.

Card 1/1

SOV/137-58-7-13982

Translation from: Referativnyy zhurnal, Metallurgiya, 1958, Nr 7, p 2 (USSR)

AUTHOR: Volf, M. B.

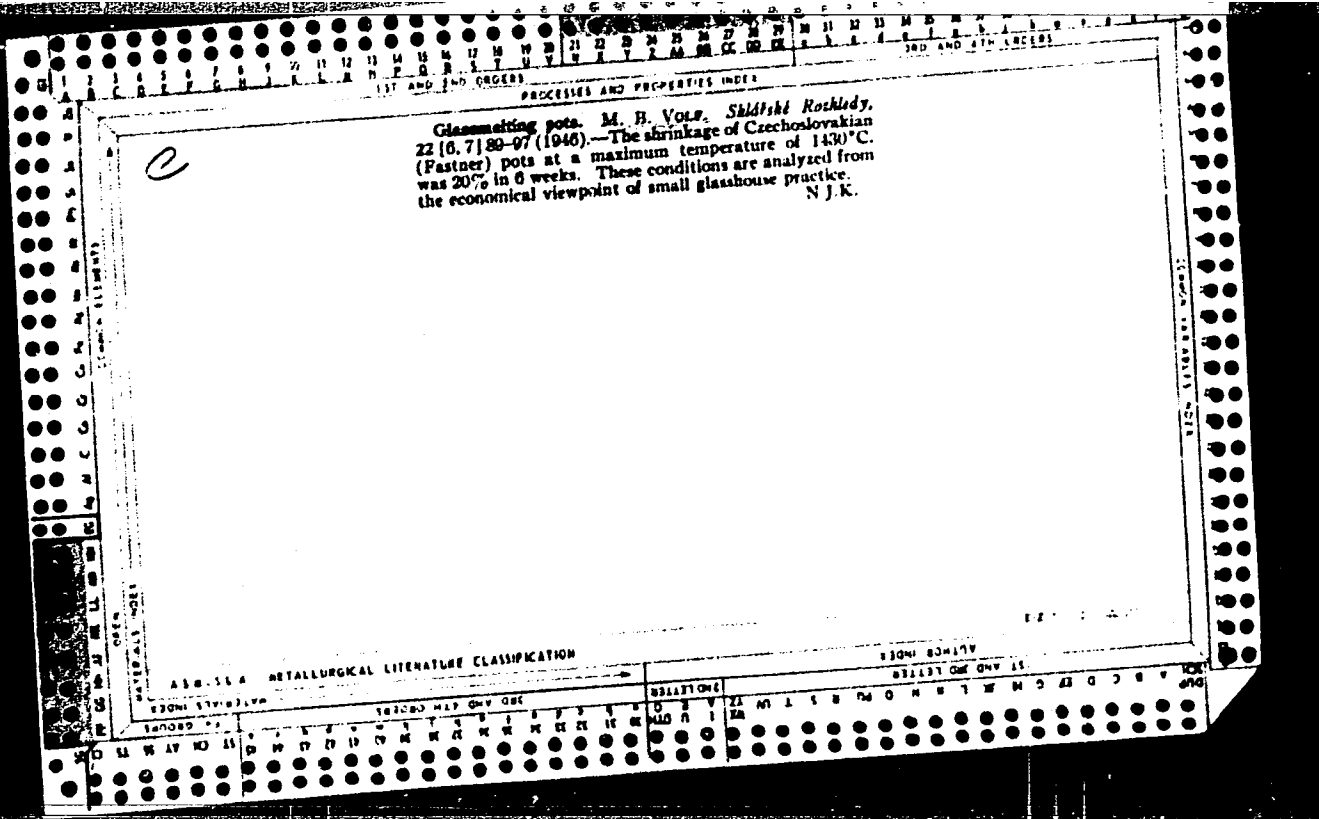
TITLE: Certain Historical and Geographical Features of the Distribution of Metallurgy in the Urals (Nekotoryye istoriko-geograficheskiye osobennosti razmeshcheniya metallurgii Urala)

PERIODICAL: Geogr. sb., 1957, Vol 11, pp 50-74

ABSTRACT: Bibliographic entry

1. Ores--USSR
2. Ores--Sources
3. Ores--History

Card 1/1



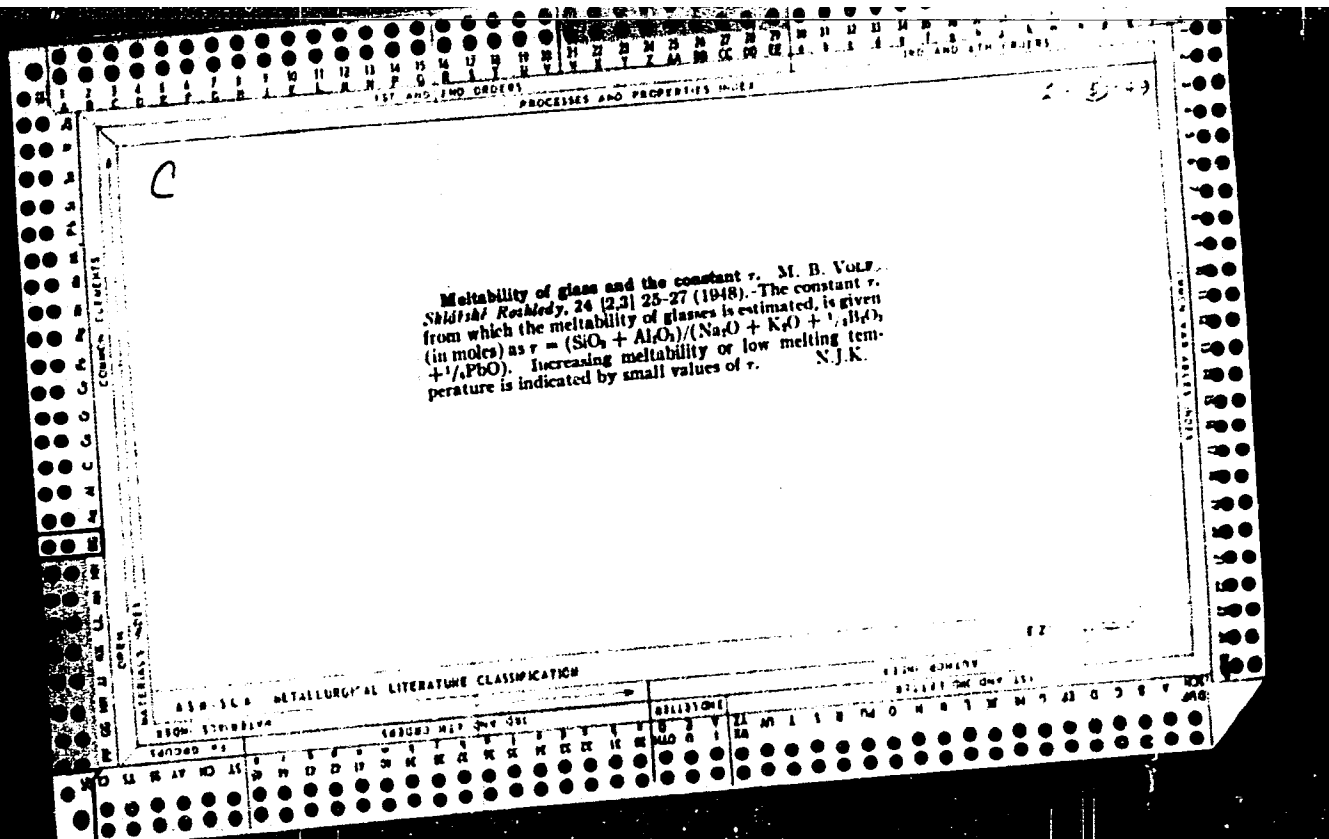
v-glass

c

Kavalier glass. M. B. VOLP. *Czechoslovak Glass Rev.* 2 (11-2) 12-18 (1947); abstracted in *J. Soc. Glass Technol.*, 31 (143) 174-75 (1947). A short survey of the historical and actual contribution of Kavalier glass to the development of laboratory glass is given. The composition of the glass has varied as follows: (1) 1879, 70.10 SiO₂, 7.6 CaO, 6.4 Na₂O, and 0.7% K₂O; (2) 1901, 78.9 SiO₂, 0.2 Al₂O₃, 7.6 CaO, 7.4 Na₂O, and 0.7% K₂O; and (3) 1937, 70.85 SiO₂, 0.07 Al₂O₃, 7.43 CaO, 0.07 Na₂O, and 11.18% K₂O. The following technical data are given:

	Palex	K 35
Density	2.42	2.35
Specific heat	0.1984	0.1950
Heat conductivity	0.00215	0.00200
Thermal expansion	4.9×10^{-6}	5.5×10^{-6}
Resistance to stress	103.7 kg/cm ²	115.0 kg/cm ²
Young's modulus	7277	7035

The chemical durability to various reagents is also given for Palex and K 35, the most used types of Kavalier glass. Other types mentioned are Neutral, Indifferent Glass 1515, and F 46. 7 figures. Cf. *Ceram. Abstracts*, 1946, July, p. 123.



1ST AND 2ND ORDERS

PROCESSES AND PROPERTIES INDEX

Accelerated analysis of glass: I. Miron B. Vior. *Skladish Roshedy*, 24 [6-7] 98-103 (1948). II, Quantitative analysis. *Ibid.*, [8-10] 138-46; 25 [1-2] 14-17 (1949). 8 references. III. *Ibid.*, [3] 41-42. 5 references.—A complete and detailed review of accelerated methods used in glass analysis is given. IV. *Ibid.*, [4-6] 73-78.—A schedule of polarographic methods for Na, K, Ca, Ba, Al, Zn, and Pb in glass is given. N.J.K.

ASIS-ISA METALLURGICAL LITERATURE CLASSIFICATION

APPROVED FOR RELEASE: 03/14/2001

CIA-RDP86-00513R001860420020-8

BA

Sial as technical glass. M. Vohl (*Czech. Glass Rev.*, 1951, 6, No. 3, 8-11; *Bull. Brit. sci. Instrum. Res. Ass.*, 1951, 6, 336).—The properties of Sial (the main technical glass produced by the Czechoslovak glass industry) are described. Sial corresponds approx. to Jena G20 glass and is used extensively for laboratory ware.
R. B. CLARKE.

VOLF, MILOS B.

2

Volf, Milos B.: Technická skla v průmyslu, laboratorní, elektrotechnice a zdravotnictví. Prague: Státní nakl. techn. lit. 1953. 260 pp. Kcs. 23. Reviewed in Glas-tech. Ber. 29, 69(1956).

Maths

Volf, Milos B.: Technical Glass in Industry, Electrotechnology, Medicine, and in the Laboratory. Prague: National Technical Literature Publishing House. 1953. 260pp. Kcs. 23. Reviewed in Glas-tech. Ber. 29. 69(1956). PM

V. A. M. B.

Zinc oxide in glass. M. D. Volf (Vědecký Ústav Sklíř-
 ťský, Sázava, Czech.). *Vláka a výskum v průmyslu sklařském*
 1, 87-114 (1950) (English summary).—The role of ZnO in glass
 is characterized by the high strength of the Zn—O and Zn—S
 bonds, and by the fact that the coordination no. of Zn is 4,
 which enables Zn to enter the lattice (ZnO₄ or ZnS₄ tetra-
 hedra replacing those of SiO₄). The addn. of ZnO to glass
 prevents milkiness due to S impurities, improves melting and
 processing properties, retards devitrification, decreases
 thermal expansion, and improves chem. resistance to water,
 acids, and steam, but not to alkalis. Its effect on d.,
 strength, hardness, elasticity, elec. resistance, dielec. loss,
 viscosity, surface tension, and n is also discussed. The use
 of ZnO in crystal, colored, and opal glass, heat and chemi-
 cally resistant glasses, plate glass, glass for light bulbs, for
 thermometers, for gas-discharge tubes, for fusing to metals,
 and optical glass is considered. H. Newcombe

J

11

1.1

VOLF, M.

The 4th Glass Congress in Paris and its results. p.122. (Sklar A Meramik. Praha. Vol. 7, no. 4, April, 1957.)

SO: Monthly List of East European Accessions (EEAL) IC. Vol. 6, no. 7, July 1957. Uncl.

VOLF, M. B.

CZECHOSLOVAKIA / Chemical Technology. Chemical Products and Their Application. Ceramics. Glass. Binding Materials. Concretes. H

Abs Jour: Ref Zhur-Khimiya, No 19, 1958, 65173

Author : Volf M B
Inst :
Title : Pyrex-Type Glass

Orig Pub: Sklar a keramik, 1957, 7, No 10, 287-293

Abstract: A review of pyrex-type glasses produced in the USA, Germany, England, USSR, Czechoslovakia, and other countries. Compositions of glasses are cited, as well as their chemical and physical properties (thermal expansion, heat conductivity, viscosity, specific inductive capacitance and dielectric losses, mechanical strength, chemical stability and others).
Bib. 60 titles.

Card 1/1

37

8:016
Z/013/60/000/06/01/001

15.2120

AUTHOR: Volf, Miloš, B., Doctor

TITLE: Qualified Compositions of Glass for Fibres

PERIODICAL: Sklář a Keramik, 1960, No 6, pp 159 - 165

TEXT: Analyzing a variety of glass compositions and their properties, qualified for the manufacture of glass fibres, the author establishes three major fields of applications: a) glass insulating wool, b) fibres for mats and air filters, c) fine fibres primarily used in textile production. Among the manifold production methods employed in glass fibre production, the author mentions centrifugal power, air or steam pressure (staple), drawing from rods on the Schuller machine (angora), and the manufacture of rayon made of small glass balls melted in platin ovens. It is being stressed that thinner fibres are stronger and more flexible; a tensile strength of 1,500 to 10,000 kg/cm² has been measured on fibres with a diameter of 0.01 to 0.003 mm. A decisive factor for the increased use of glass fibres in general engineering are the excellent heat and sound insulating properties of glass wool. A 5 cm thick glass wool layer has the same heat insulating effect as a 1 m thick brick wall or a 2 m thick concrete wall. The sound ab-

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Qualified Compositions of Glass for Fibres

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sorbing, hygienic and refractory properties of glass wool are also superior. In order to meet the specified requirements of glass wool the basic material of the glass stock is chosen from natural minerals, i.e. basalt or slate (therefore "Stone Glass"); (Refs. 1, 2, 3, 4). For samples of glass compositions, reference is made to Table I - aluminum glass with low alkali contents. This type of glass is characterized by a low silicium oxide contents (30-40%) and a relatively high iron oxide contents (7%). Czechoslovak basalt staple, whose composition is listed in Table I, No 1, has fibres between 1-10 μ , 3-4 μ in diameter. The characteristic constant for basalt fibre is its acid module:

$$M_k = \frac{\text{SiO}_2 + \text{Al}_2\text{O}_3}{\text{CaO} + \text{MgO}}$$

A low acid module means inferior chemical resistance of the fibre. Basalt fibre has an acid module of 2.8 to 4 and has great affinity to cement. It requires little lubrication (0.5 to 2%) and can endure temperatures of up to 700°C. The author states that soft, alcalic glass or non-boric and non-alcalic glass is used for the manufacture of thick fibres. The common types of alcalic glass are suitable for fibre production since they contain 15 to 17% alcalic oxides, while only 5% are required for fibres. For alcalic

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Qualified Compositions of Glass for Fibres

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glass type qualified for fibre production, reference is made to Table II. Industrial practice has shown that a higher alcalic content causes a number of technical deficiencies, such as the effects of humidity in the surface. In order to eliminate these deficiencies, non-alcalic glass and glass with a low alkali content has been developed. Both types are distinguished by a high Al_2O_3 and CaO content. Fibres made of these glass types have greater humidity resistance and a greater electric rheostat. Their chief components are SiO_2 , Al_2O_3 and CaO. There are numerous possibilities of oxide combinations (Table III). The most advantageous composition was found within these limits: SiO_2 65-55%; Al_2O_3 17-9%; CaO 16-28%; MgO 7-1%. Glass was found to melt best in the following composition (Table IV): SiO_2 60%; Al_2O_3 9%; CaO 27%; MgO 4%. The author points out that non-alcalic glass requires high melting temperatures and has so many disadvantages that most non-alcalic glass types found no application in manufacture. A considerable improvement was accomplished by adding borine oxide to aluminum glass, particularly for fibres used in textile production. The lowest liquid temperature ($1,170^{\circ}C$) is obtained in this composition: SiO_2 62.2%; Al_2O_3 14.7%; CaO 23.1%. Other compositions of non-alcalic glass are listed in Table V. The author describes the manufacture of fibres and stresses that specific compositions cause specific effects, and elaborates

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Qualified Compositions of Glass for Fibres

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on various chemical compositions. He regards the Soviet glass composition very homogeneous and qualified for continuous fibre, since it maintains constant alkali contents of 1.6 to 2%; SiO₂ 54.56 54.70; B₂O₃ 10.24 9.22; Al₂O₃ 14.00 13.40; CaO 15.86 16.07; MgO 4.19 4.00; Na₂O 1.60 2.24. Various western European and American glass types are also being discussed, and reference is made to Table VI for glass containing Li₂O; to Table VII for glass containing ZnO or CdO. For lead glass reference is made to Table X, and for fluor compositions to Table XI and XII. Colored fibres, for which usually Fe₂O₃ is used, are listed in Table XIII. The author mentions Doctor Kühne of VEB Schott in Jena, GDR, for obtaining a patent on borine-silicium glass with a low ZrO₂ content. There are 13 tables and 13 references: 4 Czechoslovak, 2 Soviet, 5 American and 2 German.

ASSOCIATION: Technické Sklo n.p., (Technical Glass, National Enterprise),
Sázava nad Sázavou.

SUBMITTED: September 24, 1960

Card 4/4

54130
152120

1043, 1160, 1227, 1273
1142 1145

21918
Z/013/60/000/009/001/001
A201/A126

AUTHOR: Volf, Miloš B., Doctor

TITLE: The significance of the periodic table of the elements for the glass industry

PERIODICAL: Sklář a keramik, no. 9, 1960, 241 - 248

TEXT: This is the first part of two of an article presenting a popularized and abridged version of a paper entitled in Czech "Periodický systém a skla" (Periodic System and Glass) originally published in the VIth series of the collection Věda a výzkum v průmyslu sklářském. Its purpose is to provide the Czechoslovak glass-industry technologists and chemists with an introduction into the chemistry of the glass and a guide towards the understanding of the elements as regards their influence on the properties of glass. The originality of the paper lies in that it abandons the conventional division of the elements into network formers, intermediate elements and network modifiers and, instead, uses the atomic structure of the elements as the criterion of their division. The decisive factor in this division are the negatively charged electrons. This division roughly coincides with the division of the elements according to the type of

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21918

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The significance of the periodic table ...

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A201/A126

the chemical bonds by which the cations are bound to anions in the glass. Inorganic glass is characterized by the fact that it consists of both covalent and ionic (electrovalent) bonds which are combined in varying proportions according to the proportional representation of the individual elements, the ratio of these two bond types determining the overall character of the glass. According to the above criterion, the elements can be divided into 5 groups as follows: 1st group: Rare-gas elements: Due to their inability of combining into compounds they do not form glass nor do they participate in the glass structure. - 2nd group: Elements similar to rare gases: Their outer shell is occupied by either 2 or 8 electrons. They occur in one valence only and have no polarizing capacity. They represent the classic elements of the glass industry. They can be subdivided as follows: (a) Univalent alkali elements (Li, Na, K, Rb, Cs). These elements cannot by themselves form monomeric glasses. Their bonds are ionic. They display weak bonds with oxygen; are more loosely bound within the glass structure than the other ions; can migrate through the network interstices; are responsible for the electric conductivity of molten glass; are readily released from the glass by liquids and flame; strongly increase the thermal dilatibility of the glass. (b) Bivalent elements of alkaline earths which in turn can be subdivided into (ba) Bivalent modifying elements (Ca, Sr, Ba). Their chemical bonds are similar to

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The significance of the periodic table ...

those of the previous ionic group, but they form a strong bond with oxygen; they improve the chemical resistance of glasses; in the absence of univalent elements they provoke competition for oxygen and lead to the separation into phases. (bb) Bivalent intermediate elements (Be, Mg). In view of the possible fourfold coordination, Be and Mg can participate in the structure of the glass network, but their oxides cannot form monomeric glasses by themselves. (c) Multivalent elements which in turn can be subdivided into: (ca) Intermediate elements (Al). In view of the fourfold coordination, Al participates in the structure of the glass network. It improves the chemical resistance of the glass; reduces the tendency of the glass towards opacifying in the flame. Its chemical bonds have a covalent character. (cb) Network formers (Si, B, P). Oxides of these elements can form monomeric glasses; their bonds are strongly covalent; their oxides show a strong tendency towards polymerization; they have small ion radii, a high charge, and low coordination numbers. They reduce the thermal dilatibility of glass. 3rd group: Elements dissimilar to rare gases. These elements have 18 electrons in their outer shell. They occur usually in varying valences, although this quality is less pronounced than that of the group of the transition elements. In the presence of network formers, or elements with a strong oxygen bond, they have in common the quality of forming binary glass even in those regions where

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The significance of the periodic table ...

network formers cannot form a coherent network. They have a strong polarizing quality. All elements of this group are readily reduced by hydrogen. They can be subdivided as follows: (a) Photosensitive elements (Cu, Ag, Au). Releasing one or two electrons, they form ions of varying stability. (b) Intermediate elements (Zn, Cd). They increase the chemical resistance of the glass. Their capability of reduction is very small. They form stable, colorless complexes with sulphur. (c) Elements with varying valence I. (Tl, Pb, Bi). They have an inert electron pair; show a high degree of polarization; reduce the surface tension, elasticity modulus and viscosity; and increase the refraction index. (d) Elements with varying valence II. (In, Sn, Sb, AS). The effect of the inert electron pair is less pronounced than that of the previous group. 4th group: Transition elements (Se through Ni in the 4th long period; Y through Pd in the 5th long period; La through Pt in the 6th long period). Their polarizing capacity is still more pronounced than that of the elements dissimilar to rare gases. They can occur in several valences (Fe, Mn, Mo) and in the glass they are usually represented in two valences, the equilibrium of which depends on the composition of the parent glass and on the melting conditions. As metals, they are paramagnetic. Their compounds have a strong chromogenous property, and they assert themselves as strong mineralizers. 5th group: Rare-earth elements. The outer

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21918

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A210/A126

The significance of the periodic table ...

shells of all rare-earth elements are similar and so are their properties. All members of this group are trivalent and have a similar molecular refraction. Like the transition elements, they are paramagnetic and chromogenic. However, the light energy is not absorbed by the electrons of the outer shell, but in the internal regions which are protected by the outer shells against external forces. As a result, the color of the glass due to the rare earths is not influenced by the composition of the glass base in the same extent as is the case with the transition elements. There are 1 figure and 2 tables.

ASSOCIATION: Technické sklo, národní podnik, Sázava nad Sázavou (Technical Glass, National Enterprise, Sázava nad Sázavou)

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Card 5/5

HEYROVSKY, Jaroslav, dr., akademik, nositel Nobelovy ceny; JANAK, Jaroslav,
inz.; VOLF, Milos Bohuslav, dr.; KEIL, Bcivoj, Dr.Sc., laureat
statni ceny; KOSSLER, Ivo, dr.

Observations of our famous collaborators on making new laboratory
instruments. Tech praca 14 no.8:655-664 Ag '62.

1. Ceskoslovenska akademie ved (for Janak and Kossler).

Z/012/63/000/002/002/002
E112/E453AUTHOR: Volf, M.B.TITLE: Transition elements as components of glass structures
(Comparative monograph)

PERIODICAL: Silikáty, no. 2, 1963, 168-178

TEXT: Atomic structures of the transition elements are reviewed and the effects of valency, ionic radii, ionization potentials, coordination of oxygen ions, compactness of structure and ionic polarizability upon the properties of (mainly) silicate glasses are discussed. Density: oxides of the transition elements entering the silicate network increase the density and maximum effects are obtained by W. Coefficient of thermal expansion: generally this coefficient is reduced; greatest effects upon reduction are shown by Zr, Th and U. Viscosity: the transition elements of the second and third horizontal row produce an extraordinary increase of viscosity, particularly Ti, Zr, Th; elements in the first horizontal row reduce the viscosity considerably, owing to lower ionization potential. Modulus of elasticity: an increase of polarizability of the ions strongly reduces the modulus E (particularly Zr in a system $\text{Na}_2\text{O}\cdot\text{CaO}\cdot\text{ZrO}_2\cdot\text{SiO}_2$); in alkali free
Card 1/3

Transition elements ...

Z/012/63/000/002/002/002
E112/E453

glasses, however, Ti, Zr and Hf increase E and are, therefore, used for the production of elastic fiberglass. Surface tension: very low surface tension is produced by V and also by Mo and W; the surface tension is inversely related to polarizability. Mechanical strength: the transition elements, generally, improve the strength as a result of the relatively high ionization potentials and great strength of their oxide bonds; best effects are shown by Zr. Polarizability leads to softening of the structure. Transition elements of the third and fourth horizontal row will therefore cause a reduction of mechanical strength. Chemical resistance: elements occurring in one highest valency (La, Zr, Th) and those whose oxides are difficult to reduce (Ti, Nb, Ta) impart to glasses a very high chemical resistance (water, steam, acids and alkalies) both in silica and boric oxide glasses. An exception is shown by W which in alkaline glasses reacts with the alkali, producing water-soluble tungstates. Optical properties: molar refraction and refractive indices are increased considerably while dispersion is strongly reduced; chromatic aberration is minimized. Electrical conductivity: the transition elements

Card 2/3

Transition elements ...

Z/012/63/000/002/002/002
E112/E453

increase, as a rule, electrical conductivity; the dielectric constant on the other hand increases and thus the use of Ti in glasses for condensers with high ϵ . Semiconductors, coordination and polarizability: the loss of electrons during changes of valency and the formation of coordination compounds lead changes of electron density round the nucleus and hence to ease of deformation. These are characteristic features of the ions of the transition elements, helping to correlate semiconductor, variability of coordination and polarizability. Color: transition elements are divided into 4 groups: 1) non-coloring (Sc, Y, La, Zr, Hf, Th); 2) coloring only under reducing conditions (Ti, Nb, Ta, Mo, W); 3) coloring under normal conditions (V, Cr, Mn, Fe, Co, Ni); 4) coloring as metallic colloids (Ru, Rh, Pd, Os, Ir, Pt). Technical uses for glasses containing the transition element are suggested and briefly reviewed. There are 5 figures and 2 tables.

ASSOCIATION: Sdružení podniků technického skla Sázava n. Sázavou
(Technical-Glass Producers Association, Sazava)

SUBMITTED: August 25, 1962

Card 3/3

VOLF, M.B., dr.

Plenary meeting of the Technical Commission for laboratory glass
of the International Organization for Standardization. Normalizace
11 no.1:12-13 Ja '63.

1. Sdruzeni podniku technickeho skla, Sazava nad Sazavou.

VOLF, Milos B., dr.

International standard of glass heat resistance. Sklar a keramik 13
no.2:51-52 F '63.

VOLF, Milos B.

Rare earths in glass. Silikaty 8 no.4:336-343 0 '64.

1. Association of Technical Glass Enterprises, Sazava
nad Sazavou.

GRUDNIKOV, T.B.; VOL'F, M.B.

Through purification of a nitrogen-hydrogen solution with zeolites.
Khim. i tekhn. topl. i masel 9 no.11:38-41 N '64 (MIRA 18:1)

1. Bashkirskiy nauchno-issledovatel'skiy institut po pererabotke
nefti.

L 82571-65 EWT(m)/EPF(a) T Pr-4 WE
ACCESSION NR: AP5009897

UR/0065/65/000/004/0015/0020

AUTHORS: Vol'f, M. B.; Grudnikov, I. B.; Prokopyuk, L. G.

TITLE: Application of molecular filters to the purification of cycled hydrogen in catalytic reforming

SOURCE: Khimiya i tekhnologiya topliv i masel, no. 4, 1965, 15-20

TOPIC TAGS: filtration, molecular absorption, rare earth, gas absorption, gas adsorption, adsorption dehydration

ABSTRACT: The use of artificial zeolites for removing hydrogen sulfide and water from hydrogen was investigated on gas with the volume percentage composition

H ₂	80-90
CH ₄	3.0-5.0
C ₂ H ₆	1.5-3.0
CO	0.4-1.1
CO ₂	0.0-0.3
H ₂ S	0.005-0.020
H ₂ O	0.5-0.7 g/m ³

The work was performed to find a procedure more effective than the one currently

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L 52571-65

ACCESSION NR: AP5009897

used. The method described by A. N. Blazhenova, A. A. Il'inskaya, and F. M. Kapoport (Analiz gazov v khimicheskoy promyslennosti. Goskhimizdat, 1952) was used in determining the degree of purification attained. Zeolites of NaA, NaX, and CaX types were tested at the gas feed flow rates of 100 and 200 lit/hr. Their adsorption capacity for hydrogen sulfide at 35 and 50°C and at flow rates of 100 and 200 lit/hr were also investigated. The influence of water content on the removal of H₂S is shown in Fig. 1 on the Enclosure. The process of desorption at temperatures of 200-400°C and at flow rates of the desorbing gas of 200-1200 lit/hr is described. It is noted that the decrease in the adsorption temperature (from 35 to 50) and the decrease of the H₂S and water content in the original gas (from 0.75 to 0.005 vol., and from 0.00 g/m³ to 0.00 g/m³) considerably improved the purification results, while the variation in the volumetric and linear flow rates showed no effect. The influence of temperature on hydrogen purification and zeolite capacity for H₂S adsorption is shown in Fig. 2 on the Enclosure. The ability of zeolites to remove H₂S was improved with a decrease in the adsorption temperature and an increase in the H₂S content of the original gas. In one adsorption cycle at a pressure of 10 atm, 1 m³ of zeolite dried and purified 100,000 and 60,000 m³ of recycled hydrogen at 15 and 300°C respectively. An increase in temperature and in the flow rate of the desorption gas improved the process of desorption. An 8-hr desorption restored the adsorptive

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L 271-15

ACCESSION NR: AP1009897

Properties of acetone from 60 to 200°. Excess hydrogen separated continuously from the circulation system during this process may be used as blow gas for desorption, while the desorption-gases may be used for regeneration. Orig. art. has: 4 tables and 5 figures.

ASSOCIATION: BashNII NP

SUBMITTED: IC

ENCL: 02

SUB CODE: IC, NP

NO REF SOV: 004

OTHER: 002

Cars 3/5

L 02571-05

ACCESSION NR: AP5009897

ENCLOSURE: 01

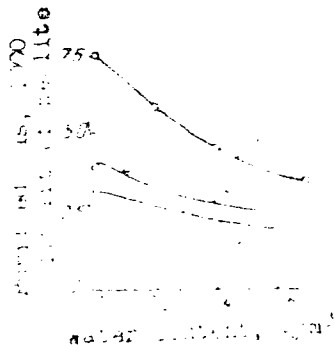


Fig. 1. The influence of water content in the cyclized hydrogen sulfide of zeolite. The amount of hydrogen sulfide, Zeolite 4A, 100 mg, 100°C, 10 min, 100% relative humidity, 100% relative humidity, 100% relative humidity.

L 52571-65

ACCESSION NR: AP5009897

ENCLOSURE: 02

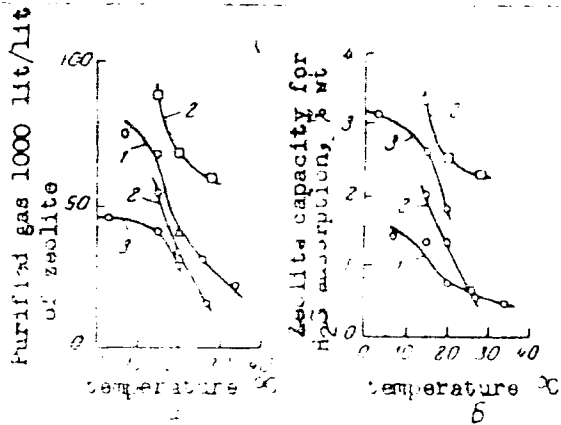


Fig. 2. Relation of the quantity of purified cycled hydrogen and the zeolite ability for H₂S adsorption to temperature. Original gas contained: water: 0.5 - 0.6 g/m³, H₂S (1 by vol): 1- 0.008; 2- 0.015; 3- 0.025

Am
Card 5/5

VOL'F, M.B.; KREYMER, M.L.; KOSTRIN, K.V.; DADAYAN, G.T.

Increasing diesel fuel resources by decreasing the production of
ligroine-kerosine fractions. Trudy Bash NIINP no.5:32-41 '62.

(MIRA 17:10)

VOLF, Milos, B., dr.

Water as a raw material in glassmaking. Sklar a keramik 13
no.9:235-238, 242 S'63.

1. Sdružení podniku technického skla, Sazava.

VOLF, Milos B., dr.

Principles of mathematical statistics as a help to glass
technologists. Pt. 2. Sklar a keramik 13 no. 12: 337-341
D '63.

1. Sdruzeni podniku technickeho skla, Sazava.

VOLF, Milos B., dr.

Water as raw material in glassmaking. Sklar a keramik 13
no.8:202-207 Ag '63.

1. Sdruzeni podniku technickeho skla, Sazava.

VOLF, Milos Boh.

Periodic properties of rare gases and glass; a comparative monograph. Pt.2. Silikaty 7 no.3:206-214 '63.

1. Sdruzeni podniku technickeho skla, Sazava nad Sazavou.

VOLF, Milos B., dr.

A necessity: a dictionary. Sklar a keramik 13 no. 12:
343 D '63.

1. Sdruzeni podniku technickeho skla, Sazava.

VOL'F, Mark Borisovich, 1898-

A statistical manual on USSR economic geography. Leningrad, Gosizdat, 1923- (Biblioteka obshchestvovedeniia)

icu

L. Geography, Economic - Stat. 2. Russia - Econ. condit. - 1918-

VOL'F, Mark Borisovich

TSentral' no-promyshlennaiia oblast'. [The Central Industrial Province]. Sostavili
M. B. Vol'f i G. A. Mebus. Moskva, Gos. izd-vo, 1926. 151 p. fold. map.
(Ekonomicheskaiia geografiia SSSR po raionam).
Bibliography: p. [150]-151.
Contains brief information on transportation facilities and communications.
DLC: HC335.V676

SO: Soviet Transportation and Communications, A Bibliography, Library of Congress,
Reference Department, Washington, 1952. Unclassified.

VOLF, Mark Borisovich

VOLF, Mark Borisovich and G. A. MEBUS.....Severo-Zapadnaia Oblast' ... Leningrad,
Gosizdat, 1926. 162 p. (Ekonomicheskaiia geografiia SSSR po raionam.)
Bibliography at end.

NN

SO: LC, Soviet Geography, Part II, 1951/Unclassified

VOLF, Mark Borisovich, 1898-

Laboratory work in Soviet economic geography. 1zd. 2. Leningrad, Gos. izd-vo, 1926.

MH

L. Russia - Econ condit. - 1918-1945

VOL'F, Mark Borisovich, 1898-

The geographical relocation of Russian industry. Moskva, Gos. izd-vo, 1927. 157 p.
map. (50-42299)

HC335.V67

1. Russia - Indus. 2. Industries, Location of.

VOLF, Mark Borisovich, 1898-

A brief outline of USSR economic geography. 3. ed. rev. and enl. Leningrad, Priboi
1928, 129 p. maps.

1. Russia - Econ. condit. - 1918- I. Mebus, Heinrich Aleksandrovich, 1895- jt. au.

VOL'F, Mark Borisovich, 1698-

Reference book of contemporary nations of the world in facts and figures. Izd. 3. dop.
Leningrad, Priboi, 1928. 140 p.

Yudin D419.S6

1. Almanacs, Russian. 2. Geography, Economic - Stat.

VOL'F, Mark Borisovich

Severo-Zapadnyi raion: Leningradskaia oblast' i Karel'skaia ASSR. [North-Western region: Leningrad Province and the Karelian ASSR]. 2., zarovo perer. izd. Moskva, Gos. izd-vo, 1929. 167 p. maps (part fold.) (Ekonomicheskaia geografiia SSSR po raionam).

Bibliography: p. [165]-167.

Contains brief chapters on transportation facilities. DLC: HC337.L4V6 1929

50. Soviet Transportation and Communications, A Bibliography, Library of Congress, Reference Department, Washington, 1952, Unclassified.

VOL'F, Mark Borisovich, 1898-

Farm economy. Moskva, Moskovskii rabochii, 1931. 61 p. (Itogi 2-go goda piatiletki i kontrol'nye tsifry na 3-i god) (50-49336)

HD1992.V58

1. Agriculture - Economic aspects - Russia. 2. Agriculture, Cooperative - Russia.

VOL'F, Mark Borisovich, 1898-

A statistical handbook on the economic geography of the capitalist world. Moskva, Gos. sots.-ekon. izd-vo, 1934. 484 p. maps. (50-53674)

HC51.V6 1934 NNC

1. Economic conditions - Stat. I. Klupt, V.S., jt. au.

VOI 'F, M. B.

USSR/Geography - Cartography
Literature
Nov/Dec 50

"Concerning the Geographical Maps in Volumes I
AND II of the Second Edition of the 'Bol'shaya
Sovetskaya Entsiklopediya,'" M. B. Vol'f

"Iz v-ov Geograf. Obsuch" Vol LXXXII, No 6,
pp 626, 627

Lists a number of minor criticisms of maps in
the "Bol'shaya Sovetskaya Entsiklopediya." For
example, most important highways are given
only in maps for Akmolinsk, Aktyubinsk, and
Aima-Ata regions. The city of Seoul is shown

175T17

USSR/Geography - Cartography
(Contd)
Nov/Dec 50

in political map of Asia as having population
of less than one million, while actual popula-
tion was 1,114,000 in 1942. Some of the rail
lines are shown incompletely, etc.

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