"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R001859630008-1

VEYNBERG, G.I.

15(2)

AUTHOR: Bone Given SOV/72-59-5-1/25

TITLE: Glass Science at the VIII Mendeleyev Congress (Nauka o stekle na VIII Mendeleyevskom s"yezde)

PERIODICAL: Steklo i keramika, 1959, Nr 5, pp 1-4 (USSR)

ABSTRACT: In the beginning a proclamation of the TsK KPSS to the personnel of the building material industries for a qualitative and quantitative increase of production is mentioned. The Congress took place in Moscow in the second half of March of the current year and was devoted to the 125th anniversary of the great scholar's birthday. Outstanding chemists of the Soviet Union and the People's Democracies attended the Congress. The principal problems of the development of chemistry were discussed at the plenary meetings and the meetings of the 18 Congress sections. Professor I. I. Kitaygorodskiy opened the meetings of the sub-section for glass and gave a survey of the stages of development of Soviet glass production as well as of a number of promising tasks in the field of glass technology. Moreover, the following lectures were held: Doctor Korani (People's Republic of Hungary) investigated the structure of the top-layers of glass;

Card 1/4

A. I. Avgustinnik (LTI imeni Lensovet) discussed the formation of a finely disperse crystalline phase from the glass-like phase; V. V. Vargin and G. O. Karapetyan (GOI) reported on absorption spectra, luminiscence, and photochemical properties of cerium-glass types; A. G. Vlasov (GOI) reported on the quantitative reciprocal relations between ordered and disordered glass phases; Ye. A. Porai-Koshits, Institut khimii silikatov AN SSSR (Institute of Silicate Chemistry of the AS USSR) discussed the reasons for the disagreement on the problem of the structure of glass-like substances; Professor O. K. Botvinkin, N. I. Ananich, and M. L. Mironova, Institut stekla (Glass Institute) reported on the Investigation of the Glass Structure by the Method of Thermal Analysis and Optical Polarization; Ye. V. Podushko (GOI) discussed the new method of electric glass melting and the melting of silicates by means of high-frequency current; Yu. G. Shteynberg reported on strontium-magnesium glasses without lead and boron for faience and majolica which have been developed in the Gosudarstvennyy nauchno-issledovatel'skiy keramicheskiy institut (State Scientific Research Institute of Ceramics); L. S. Yastrebova, and V. S. Molchanov (GOI) discussed the role played by the

Card 2/4

surface protection film in the destruction of silicate glasses; G. I. Veynberg (GOI) discussed the coloring characteristics and the technology of phosphate glasses; O. V. Mazurin (LTI) reported on the mobility of sodium ions in glass types of the system Na_2O-RO-SiO_2; Z. A. Nosova (NII Stroykeramika) discussed the process of subduing the glasses by lead oxide and zirconium; L. G. Mel'nichenko, Khar'kovskiy politekhnicheskiy institut (Khar'kov Polytechnic Institute) reported on silicate formation and sintering processes in the briquetted glass layer; K. M. Yevstrop'yev investigated various types of glass; N. N. Semenov (Glass Institute) reported on the determination of impurities in silica by spectroscopic analysis; S. S. Bogdanova, and Ye. M. Orlova (Glass Institute) reported on types of electrode glass which has been devised by them. Yu. V. Rugozhin (Glass Institute) discussed the kinetics of the formation of crystallization centers in photo-sensitive types of glass ; Z. N. Syritskaya (Glass Institute) discussed the results of the investigation of the tendency of phosphatic systems towards glass formation; L. A. Grechanik, M. V. Patrovykh, and V. G. Karpechenko (NIIES) reported on the investigation of types of semiconducting oxide glass on the basis of V_2O_5 ; N. V. Solomin, L. A. Grechanik, I. V. Shpakova, and Ye. A. Feynberg (NIIES) discussed the production of conductive films on types of glass which contain components easily to be regenerated.

APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R001859630008-1"

"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R001859630008-1

BORGEST, V.A.; VEYNBERG, G.V.; ZAYDEL', A.N.; PETROV, A.A.

Spectrum analysis of isotopes of a hydrogen-deuterium mixture. Fiz.sbor. no.4:207-209 '58. (MIRA 12:5)

1. Fizicheskiy institut Leningradskogo ordena Lenina gosudarstvennogo universiteta imeni A.A.Zhdanova.
(Hydrogen—Spectra)

APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R001859630008-1"

"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R001859630008-1

VEYNBERG, G.V.

Isotope analysis by the absorption spectrum of cuprous iodide. Opt. i spektr. 6 no.1:9-16 Ja '59. (MIRA 12:3)
(Copper--Isotopes)
(Copper iodides--Spectra)

APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R001859630008-1"

"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R001859630008-1

24(7) PHASE I BOOK EXPLOITATION SOV/1700

L'vov. Universitet

Materialy X Vsesoyuznogo soveshchaniya po spektroskopii, 1956. t. II: Atomnaya spektroskopiya (Materials of the 10th All-Union Conference on Spectroscopy, 1956. Vol 2: Atomic Spectroscopy) /Lvov/ Izd-vo L'vovskogo univ., 1958. 568 p. (Series: Its: Fizicheskiy sbornik, vyp.4(9)) 3,000 copies printed.

Additional Sponsoring Agency: Akademiya nauk SSSR. Komissiya po spektroskopii.

Editorial Board: G.S. Landsberg, Academician, (Resp. Ed.); B.S. Neporent, Doctor of Physical and Mathematical Sciences; I.L. Fabelinskiy, Doctor of Physical and Mathematical Sciences; V.A. Fabrikant, Doctor of Physical and Mathematical Sciences; V.G. Koritskiy, Candidate of Technical Sciences; S.M. Rayskiy, Candidate of Physical and Technical Sciences; L.K. Klimovskaya, Candidate of Physical and Mathematical Sciences; V.S. Miliyanchuk (Deceased), Doctor of Physical and Mathematical Sciences; A.Ye. Glazberman, Doctor of Physical and Mathematical Sciences; Ed.: S.L. Gazer; Tech. Ed.: T.V. Saranyuk.

PURPOSE: This book is intended for scientists and researchers in the field of spectroscopy, as well as for technical personnel using spectrum analysis in various industries.

COVERAGE: This volume contains 177 scientific and technical studies of atomic spectrography presented at the 10th All-Union Conference on Spectroscopy in 1956. The studies were carried out by members of scientific and technical institutes and include extensive bibliographies of Soviet and other sources. The studies cover many phases of spectroscopy: spectra of rare earths, electromagnetic radiation, physicochemical methods for controlling uranium production, physics and technology of gas discharge, optics and spectroscopy, abnormal dispersion in metal vapors, spectroscopy and the combustion theory, spectrum analysis of ores and minerals, photographic methods for quantitative spectrum analysis of metals and alloys, spectral determination of the hydrogen content of metals by means of isotopes, tables and atlases of spectral lines, spark spectrographic analysis, statistical study of variation in the parameters of calibration curves, determination of traces of metals, spectrum analysis in metallurgy, thermochemistry in metallurgy, and principles and practice of spectrochemical analysis.

Card 2/31

Materials of the 10th All-Union Conference (Cont.) SOV/1700

Zaydel', A.N., A.A. Petrov, and K.I. Petrov. Spectral Determination of Hydrogen in Metals by the Isotope Balance Method 206

Borgest, V.A., G.V. Veynberg, A.N. Zaydel', and A.A. Petrov. Isotopic Spectrum Analysis of Hydrogen-deuteron Mixtures 207

Sventitskiy, N.S., and K.I. Taganov. Studies on the Spectral Determination of Hydrogen in Metals 209

Vidro, G.I., B.D. Luft, and Yu. V. Matorin. Use of Gas-discharge Devices as Light Sources in the Spectrum Analysis of Inert Gases 212

Boshkova, O.P., and L.P. Razumovskaya. Spectrum Analysis of Multicomponent Gas Mixtures 214

Borovskiy, I.B., and S.A. Skotnikov. Unit for the Analysis of Nitrogen in Metals and the Analysis of Gas in Small Samples 217

Filimonov, L.N., and N.N. Kagan. Spectral Analytic Determination of Carbon and Hydrogen in Titanium 222

Card 14/31

APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R001859630008-1"

"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R001859630008-1

AUTHOR: Veynberg, G.V. SOV/51-6-1-2/30

TITLE: Isotopic Analysis by Means of the Absorption Spectrum of Copper Iodide (Izotopicheskiy analiz po spektru poglosheniya iodistoy medi)

PERIODICAL: Optika i Spektroskopiya, 1959, Vol 6, No 1, pp 9-16 (USSR)

ABSTRACT: Atomic spectra are normally used in isotopic analysis. The isotopic shift in elements of medium atomic weight is, however, so small that it is preferable to use molecular spectra. The present paper deals with methods of isotopic analysis of copper using the molecular (absorption) spectrum of CuI in the visible region. Copper iodide was chosen because iodine has only one isotope, which simplifies the spectrum, and because of the high atomic weight of iodine, the isotopic shift in the CuI spectrum is larger than in the spectra of other diatomic compounds of copper. The work was carried out using a DSF-3 spectrograph with 4 Å/mm dispersion in the first order. A krypton-xenon lamp SVD-120 was used as the source of continuous spectrum. A quartz cell with CuI was evacuated, sealed and placed into a furnace. It was heated to 1100°C in this furnace. The spectrum was recorded on photographic plates. Samples of CuI with known isotopic composition were used as standards and calibration curves were constructed using these samples.

Card 1/3

APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R001859630008-1"

"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R001859630008-1

SOV/51-6-1-2/30

Isotopic Analysis by Means of the Absorption Spectrum of Copper Iodide

The isotopic compositions of the standards are given in Table 1. The isotopic shift was measured for the strongest edges of the absorption bands. The results are given in Table 2 and are compared there with Mulliken's (Ref 8) results and with values of the isotopic shift calculated from Eq 1 on p 10. The author found two bands whose edges were most suitable for the isotopic analysis of copper. They were 0--2 and 0--3 bands of the E-system with wavelengths of 4090.8 and 4054.0 Å; the isotopic shifts were 0.7 and 1.02 Å between the two isotopes of copper Cu^{63} and Cu^{65}. Part of the spectrum near these bands is shown in Fig 1; spectra "a", "b" and "v" represent $Cu^{63}I$, natural CuI (which has about 30% of Cu^{65}) and $Cu^{65}I$. In addition to the study of the vibrational structure of the CuI spectrum the author studied also the rotational structure of the two bands chosen for analysis. Fig 2 gives the cumulative absorption of two isotopes without allowance for the rotational structure (curve a) and allowing for the rotational structure (curve b). The author discusses the choice of the best conditions for isotopic analysis and Figs 3-7 show various calibrating graphs. The best results can be obtained on mixtures with 20-80% of Cu^{63} when the error in determination of the

Card 2/3

APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R001859630008-1"

"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R001859630008-1

SOV/51-6-1-2/30

Isotopic Analysis by Means of the Absorption Spectrum of Copper Iodide

isotopic composition is equal to 4-5%. It was found useful to work with slit-widths considerably greater than those used normally. It is, therefore, suggested that the isotopic analysis of copper may be made with instruments of low resolving power such as DS-1, ISP-51 and similar instruments. The author thanks A.N. Zaydel' who directed this work and V.S. Zolotarev for supply of separated copper isotopes. There are 7 figures, 2 tables and 9 references, 2 of which are Soviet, 5 English and 2 German.

SUBMITTED: March 5, 1958

Card 3/3

APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R001859630008-1"

"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R001859630008-1

APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R001859630008-1"

"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R001859630008-1

VEYNBERG, G.V.; ZAYDEL', A.N.; PETROV, A.A.

Spectrum analysis of the isotope composition of hydrogen-deuterium mixtures. Opt. i spektr. 1 no.8:972-982 D '56. (MLRA 10:2)

1. Nauchno-issledovatel'skiy fizicheskiy institut Leningradskogo Gosudarstvennogo universiteta.
(Hydrogen--Spectra) (Deuterium--Spectra)

APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R001859630008-1"

"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R001859630008-1

VEYNBERG, G.V.; ZAYDEL', A.N.; PETROV, A.A.

Spectrum analysis of the isotope composition of hydrogen-deuterium mixtures. Opt. i spektr. 1 no.8:972-982 D '56. (MLRA 10:2)

1. Nauchno-issledovatel'skiy fizicheskiy institut Leningradskogo Gosudarstvennogo universiteta.
(Hydrogen--Spectra) (Deuterium--Spectra)

APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R001859630008-1"

"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R001859630008-1

VEYNBERG, GALINA VSEVOLODOVNA

ZAYDEL', Aleksandr Natanovich; PETROV, Arkadiy Anatol'yevich; VEYNBERG, Galina Vsevolodovna; MOISEYEVA, L.V., redaktor; IVANOVA, A.V., tekhnicheskiy redaktor

[Spectral-isotope method of determining hydrogen in metals] Spektral'no-izotopnyi metod opredeleniia vodoroda v metallakh. [Leningrad] Izd-vo Leningr.univ., 1957. 104 p. (MLRA 10:9)
(Metals--Analysis) (Hydrogen--Analysis)
(Spectrum analysis)

APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R001859630008-1"

"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R001859630008-1

CA

13

Imitation leather lining. I. A. Veinberg. *Kosheenno-Obuvnaya Prom.* 18, No. 8, 30-2(1939).- Loose fabric with nap on both sides is impregnated with a mixt. of butadiene rubber, S, ZnO, kaolin, lithopone, stearin, accelerators, pigments and cotton linter. The accelerators are introduced 30 min. before dilu. of the cement in the form of a gasoline dispersion. A gasoline b. 80-120 and having d. 0.740 is used as solvent. Vulcanization is effected with air at 130° for 2 hrs. A. A. Bochtlingk

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION

APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R001859630008-1"

"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R001859630008-1

VEYNBERG, Ikhil' Abramovich; PIMENOV, V.I., kandidat tekhnicheskikh nauk, retsenzent; STESHOV, I.I., inzhener, retsenzent; MINAYEVA, T.M., redaktor, NEKRASOVA, O.I., tekhnicheskiy redaktor.

[Hot vulcanization in footwear production] Goriachaia vulkanizatsiia v obuvnom proizvodstve. Moskva, Gos.nauchno-tekhnicheskoe izd-vo Ministerstva tekstil'noi promysh. SSSR, 1955. 230 p. (MLRA 9:4)
(Vulcanization) (Boots and shoes)

APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R001859630008-1"

"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R001859630008-1

CA

13

Thermoplastic material for shoe tips. I. A. Yeinikin. Russ. 50,654, March 31, 1940. Bitumen is mixed on hot rollers with rosin, reclaimed rubber and mineral oil, and the product is combined with a paste of rosin and castor oil, and pressed into plates.

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION

APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R001859630008-1"

"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R001859630008-1

30

Producing footware by hot vulcanization methods. I.
A. Veinberg. *Legkaya Prom.* 3, No. 6, 12-13(1943).
M. Hosch

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION

APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R001859630008-1"

"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R001859630008-1

30

Hot vulcanization in the manufacture of shoes. I. A. Veinberg. *Prom. Energet.* 4, No. 9, 13-14(1947)(in Russian).—The time required for heat vulcanization was shortened from 13 to 10 min. by the use of 2 different synthetic-rubber compns. for the outer and inner layer of the sole, the latter higher in acceleration. The strength of the rubber-to-leather adhesion was improved. N. T.

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION

APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R001859630008-1"

"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R001859630008-1

The influence of ingredients on the strength of bonds between rubber mixtures and leather. I. A. Veinbig. *Legkaya Prom.* 7, No. 3, 25-9(1947).—Sovprene cement gave the max. bond strength, followed by gutta-percha cement, and finally by natural rubber cement, in bonding to hides and to textiles.

Marshall Sittig

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION

APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R001859630008-1"

"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R001859630008-1

VEYNBERG, I.A., kand.tekhn.nauk

Problems in the development and improvement of the hot vulcanization method of shoe manufacture. Kozh.-obuv.prom. 3 no.11:28-29 N '61. (MIRA 15:1)

(Boots and shoes, Rubber) (Vulcanization)

APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R001859630008-1"

"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R001859630008-1

OKHRIMENKO, I.S., BELEN'KIY, I.A., POTAPENKO, M.N., VEYNBERG, I.A.

Study of internal pressures in the process of molding and vulcanization of rubbers. Kauch.i rez. 19 no.7:39-44 Jl '60. (MIRA 13:7)

1. Leningradskiy tekhnologicheskiy institut im. Lensoveta i Leningradskaya fabrika "Skorokhod".
(Vulcanization)

APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R001859630008-1"

"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R001859630008-1

S/138/60/000/007/008/010
A051/A029

AUTHORS: Okhrimenko, I.S.; Belen'kiy, I.A.; Potapenko, M.N.; Veynberg, I.A.

TITLE: A Study of the Internal Pressures During the Molding and Vulcanization Processes of Rubber

PERIODICAL: Kauchuk i Rezina, 1960, No. 7, pp. 39 - 44

TEXT: A study of the "internal pressure" produced within the mold during the heating and vulcanization of rubber is of the greatest interest, since it is one of the main factors in securing monolithic products in the manufacturing of molded rubber articles. It is also important for determining the right amount of rubber mixture consumed in the process and for the rational utilization of energy in the plants. The range of pressures used in rubber manufacturing is from 12 kg/cm^2 to 600 kg/cm^2. In the thermal processing of rubber and rubber mixtures volumetric changes take place at a constant external pressure and a change takes place in the "internal" pressures at a constant volume of the polymer. The Leningrad "Skorokhod" Plant was first to use the instrument shown diagrammatically in Figure 1 for the determination of volumetric change in rubber during vulcanization. An-

Card 1/4

APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R001859630008-1"

"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R001859630008-1

S/138/60/000/007/008/010
A051/A029

A Study of the Internal Pressures During the Molding and Vulcanization Processes of Rubber

other instrument of the Poisson type was developed for the measurements of internal pressures (Fig. 3). A further description of the instrument and the method used for the experiments is given. The internal pressure was calculated by the formula:

$$P_{int.} = \frac{K_{con.} - (P_{start.} + \Delta P)}{S_r} \cdot S_p,$$

since the principle of the instrument is based on the compensation of the internal pressure of the rubber by means of a pressing unit. $K_{con.}$ is the pressure after the heating of the rubber, $P_{start.}$ is the starting pressure 5 kg/cm^2, ΔP the correction of the thermal expansion of the instrument parts and the press, S_r - the area of the cross-section of the rubber sample (usually 4.52 cm^2), S_p - the area of the cross-section of the press plunger (254.34 cm^2). The change in the volume of the rubber mixtures during the heating and vulcanizing process, as well as the change in the internal pressure during those processes are further discussed. The conditions for reducing the amount of vulcanized rubber waste were sought and it is stated that these might be accomplished by the use of a sealed mold of the

Card 2/4

APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R001859630008-1"

"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R001859630008-1

S/138/60/000/007/008/010
A051/A029

A Study of the Internal Pressures During the Molding and Vulcanization Processes of Rubber

Poisson type in the rolling process. It was found that the amount of rubber waste depended on the type of mold used, the weight of the raw material, calibre, etc. The internal pressure of rubbers, vulcanized in the hermetically-sealed Poisson-type molds reaches high values and exceeds the external pressures used in industry by 10 to 20 times. Due to the fact that the internal pressure in these molds is always greater than the external pressure, a qualitative molding and vulcanization of the rubbers can be accomplished, the excess usage of rubber from raw semi-finished articles can be brought to a minimum, as well as that of the vulcanized waste products, and it can also eliminate certain types of waste products. In this case light-weight and low-energy equipment can be utilized. An external pressure of 10 - 12 kg/cm^2 is sufficient for the initial molding of the rubber article, which determines the necessary power of the equipment. The subsequent molding would be ensured by the constant presence of the internal pressure, which is greater than the external one during the vulcanization of the rubber. The amount of the rubber in the hermetically-sealed mold remains constant, and the volume changes slightly according to the temperature and pressure. It is emphasized that the findings of

Card 3/4

APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R001859630008-1"

"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R001859630008-1

S/138/60/000/007/008/010
A051/A029

A Study of the Internal Pressures During the Molding and Vulcanization Processes of Rubber

these tests render the use of heavy equipment and high pressures unnecessary, in addition to serving as a basis for the vulcanization of rubber products in closed molds outside the vulcanization process. The use of hermetically-sealed Poisson-type molds for general use in the manufacturing of molded rubber articles is recommended. There are 4 diagrams, 6 graphs, 2 tables and 5 Soviet references.

ASSOCIATION: Leningradskiy Tekhnologicheskiy institut im. Lensoveta i Leningradskaya fabrika "Skorokhod" (Leningrad Technology Institute im. Lensovet and the Leningrad Plant "Skorokhod")

Card 4/4

APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R001859630008-1"

"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R001859630008-1

VEYNBERG, I.A.

KOTEL'NIKOV, V.N., kand.tekhn.nauk; CHENTSOVA, K.I., kand.tekhn.nauk; ZYBIN, Yu.P., doktor tekhn.nauk; KOCHETKOVA, T.S.; ZAKATOVA, N.D., kand.tekhn.nauk; GUBAREV, A.S., kand.tekhn.nauk; SHVETSOVA, T.P., inzh.; VOROB'YEVA, A.A., kand.tekhn.nauk; MIRSKIY, V.I., inzh.; NISNEVICH, Ye.A., kand.tekhn.nauk; GOL'DSHTEYN, A.V., inzh.; KALASHNIKOVA, T.A., inzh.; SHUSTOROVICH, M.L., kand.tekhn.nauk; MOREKHODOV, G.A., inzh.; ZAKHAROV, S.R., retsenzent; BLAGOVESTOV, B.K., retsenzent; STRONGINA, O.P., retsenzent; SHMIDT, M.I., retsenzent; ZUYEV, V.T., retsenzent; KOSAREV, M.I., retsenzent; STEPANOV, I.S., retsenzent; RAMM, S.N., retsenzent; PEVZNER, B.M., retsenzent; VEYNBERG, I.A., retsenzent; TURBIN, A.S., retsenzent, SMIRNOVA, Ye.V., retsenzent; BUGOSLAVSKAYA, L.A., retsenzent; GAMOVA, A.S., retsenzent; KHANIN, N.M., retsenzent; MURVANIDZE, D.S., red.; PLEMYANNIKOV, M.N., red.; GRACHEVA, A.V., red.; MEDVEDEV, L.Ya., tekhn.red.

[Shoemaker's handbook] Spravochnik obuvshchika. Vol.1. Moskva, Gos.nauchno-tekhn.izd-vo lit-ry po legkoi promyshl. 1958. 540 p. (MIRA 12:4)

1.Gosudarstvennaya Ordena Lenina i Ordena Trudovogo Krasnogo Znameni obuvnaya fabrika "Skorokhod" imeni Ya.Kalinina (for Zakharov, Blagovestov, Strongina, Shmidt, Zuyev, Kosarev, Stepanov, Ramm, Pevzner, Veynberg, Turbin, Smirnova, Bugoslavskaya, Gamova, Khanin).
(Shoe manufacture)

APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R001859630008-1"

"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R001859630008-1

SOV/19-58-6-610/685

AUTHORS: Veynberg, I.A., Zakharov, S.R., Blagovestov, B.K. Slobodina, R.M., Kaminskiy, L.Yu., Steshov, I.I. Masalovich, A.I., Zuyev, V.T., Lytkin, T.S., Loginova, S.A., Dantsig, L.Ya., and Surkova, O.K.

TITLE: A Method of Shoe Production (Sposob izgotovleniya obuvi)

PERIODICAL: Byulleten' izobreteniy, 1958, Nr 6, pp 134-135 (USSR)

ABSTRACT: Class 71a, 16_{01}. Nr 113694 (590545 of 24 Jan 1958). Submitted to the Committee for Inventions and Discoveries at the Ministers Council of USSR. A method of making shoes, with the use of ready formed blank with glued-in counters and tips, and the insole attached along the entire periphery of the blank; increasing the production rate by using elastic counters and tips and hotvulcanizing them simultaneously with the vulcanization of the sole to the lower part of the shoe.

Card 1/1

APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R001859630008-1"

"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R001859630008-1

VEYNBERG, I.A., kandidat tekhnicheskikh nauk.

Automatization in the manufacture of vulcanized footwear. (MLRA 9:10)
Leg. prom. 16 no.7:4-6 Jl '56.

(Shoe industry) (Vulcanization) (Automatic control)

APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R001859630008-1"

"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R001859630008-1

BEREZHNOY, A.I.; BRODSKIY, Yu.A.; BRONSHTEYN, Z.I.; VEYNBERG, K.L.; GALDINA, N.M.; GLETMAN, B.A.; GINZBURG, D.B.; GUTOP, V.G.; GUREVICH, L.R.; DAUVAL'TER, A.N.; YEGOROVA, L.S.; KOTLYAR, A.Ye.; KUZYAK, V.A.; MAKAROV, A.V.; POLLYAK , V.V.; POPOVA, E.M.; PRYANISHNIKOV, V.P.; SENTYURIN, G.G.; SIL'VESTROVICH, S.I., kand. tekhn. nauk, dots.; SOLOMIN, N.V.; TEMKIN, B.S.; TYKACHINSKIY, I.D.; SHIGAYEVA, V.F.; SHLAIN, I.B.; EL'KIND, G.A.[deceased]; KITAYGORODSKIY, I.I., zasl. deyatel' nauki i tekhniki RSFSR, doktor tekhn. nauk, prof., red.; GOMOZOVA, N.A., red.izd-va; KOMAROVSKAYA, L.A., tekhn. red.

[Handbook on glass manufacture] Spravochnik po proizvodstvu stekla. [By] A.I.Berezhnoi i dr. Pod red. I.I.Kitaigorodskogo i S.I.Sil'vestrovicha. Moskva, Gosstroiizdat. Vol.2. 1963. 815 p. (MIRA 16:12)

(Glass manufacture)

APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R001859630008-1"

"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R001859630008-1

BEREZHNOY, A.I.; BRODSKIY, Yu.A.; BRONSHTEYN, Z.I.; VEYNBERG, K.L.; GALDINA, N.M.; GLETMAN, B.A.; GINZBURG, D.B.; GUTOP, V.G.; GUREVICH, L.R.; DAUVAL'TER, A.N.; YEGOROVA, L.S.; KOTLYAR, A.Ye.; KUZYAK, V.A.; MAKAROV, A.V.; POLIYAK, V.V.; POPOVA, E.M.; PRYANISHNIKOV, V.F.; SENTYURIN, G.G.; SIL'VESTROVICH, S.I., kand. tekhn. nauk, dots.; SOLOMIN, N.V.; TEMKIN, B.S.; TYKACHINSKIY, I.D.; SHIGAYEVA, V.F.; SHLAIN, I.B.; EL'KIND, G.A. [deceased]; KITAYGORODSKIY, I.I., zasl. deyatel' nauki i tekhniki RSFSR, doktor tekhn. nauk, prof., red.; GOMOZOVA, N.A., red.izd-va; KOMAROVSKAYA, L.A., tekhn. red.

[Handbook on glass manufacture] Spravochnik po proizvodstvu stekla. [By] A.I.Berezhnoi i dr. Pod red. I.I.Kitaigorodskogo i S.I.Sil'vestrovicha. Moskva, Gosstroiizdat. Vol.2. 1963. 815 p. (MIRA 16:12)

(Glass manufacture)

APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R001859630008-1"

"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R001859630008-1

VEYNBERG, K.L., inzh.

Increasing the efficiency of bath glass furnaces. Leg. prom. 18 no.2: 9-10 F '58. (MIRA 11:2)

(Glass furnaces)

APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R001859630008-1"

"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R001859630008-1

VEYNBERG, K. L.

Glass factory equipment; installation, operation, repair Moskva, Gos. izd-vo lit-ry po stroit. materialam, 1952. (Mic 55-3917)

Collation of the original, as determined from the film: 555 p.

Microfilm Slavic 437 T

APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R001859630008-1"

"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R001859630008-1

72-58-6-8/19

AUTHOR: Veynberg, K.L.

TITLE: The Selection of a Rational Construction of a Machine for Grinding Refractory Bars (Vybor ratsional'noy konstruktsii stanka dlya shlifovki ogneupornykh brus'yev)

PERIODICAL: Steklo i Keramika, 1958, [illegible] Nr 6, pp. 22-26 (USSR)

ABSTRACT: There exist no special machines for the treatment of refractory bars in the glass industry. The single-spindle grinding machine which was produced in 1952 by the "Reduktor" works according to drawings designed by GSKB Glavtekhsteklo (now PKB of the Institute for Glass), has hitherto not been tested. Therefore, the necessary operational parameters (cutting velocity, feed, wear of tools etc.), which would facilitate the designing and the production of the required machines, have not been determined as yet. In order to be able to develop a suitable grinding machine, the technical conditions, to which the shape of the bars are to correspond, must first be ascertained. According to GOST 7154-54, the refractory bars must have a rectangular cross section. Ye. Preston stated on the 4. International Congress on Glass (July 1956) that the linear dilatation of the bar in its 3 dimensions is not uniform, as a consequence of various forms of thermal influence, be it as a result of

Card 1/3

APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R001859630008-1"

"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R001859630008-1

contact with the glass mass or the opposite side of the bar. It is therefore necessary that such edges of the bar as are subjected to intense heating have smaller dimensions in order that their rectangular cross section be attained only at the smelting temperature of the tank furnace. The refractory standard bars Sh-1 and Sh-4 should be shaped as shown by fig. 1, which is, however, possible only by treatment on grinding machines. Fig. 2 shows the scheme of a single-spindle machine, which is also described. The dimensions of this machine are 3500x2767x1600 mm, and its weight 3150 kg. A number of faults of this machine is mentioned, which are for the most part eliminated in the construction of the 2-spindle machine. This machine (fig.3) was designed in 1956 according to data supplied by the Soyuzsteklostroy Trust by the Giprostrommekhanizatsiya Institute. Its main fault consists in the fact that the front sides of the bars cannot be treated. Fig.4 shows the scheme of a 4-spindle machine, and fig. 5 shows one for grinding wheels. Fig. 6 shows the operation of the machine. Preliminary calculation shows that a machine to be used for the grinding of bars up to a length of 1500 mm will have the following outside dimensions: 3000 x 2000 x 1600. Its weight will probably amount

APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R001859630008-1"

"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R001859630008-1

The Selection of a Rational Construction of a Machine for Grinding Refractory Bars

72-58-6-8/19

to 5-6 t. Its efficiency should be considerably greater than that of a 1- or 2-spindle machine. This type of machine ought to be introduced in industry. There are 6 figures.

1. Grinders--Design 2. Heat resistant alloys--Machining
3. Glass--Production

Card 3/3

APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R001859630008-1"

"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R001859630008-1

VEYNBERG, K.L.

Selecting an efficient machine tool design for grinding refractory bars. Stek. i ker. 15 no.6:22-26 Je '58. (MIRA 11:6)
(Glass manufacture--Equipment and supplies)
(Grinding machines)

APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R001859630008-1"

"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R001859630008-1

VEYNBERG, K.L.

Selecting an efficient machine tool design for grinding refractory bars. Stek. i ker. 15 no.6:22-26 Je '58. (MIRA 11:6)
(Glass manufacture--Equipment and supplies)
(Grinding machines)

APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R001859630008-1"

"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R001859630008-1

VEYNBERG, Kal'man Lipmanovich; GURFINKEL', Isaak Yevgen'yevich[deceased]; KOTLYAR, Abram Yevseyevich; NOL'KEN, Maksimilian Petrovich; ORLOV, Anatoliy Nikolayevich; KHERSONSKIY, Sergey Semenovich; SHKOL'NIKOV, Yakov Abramovich; BROMLEY, P.V., retsenzent; ZALIZNYAK, A.A., retsenzent; KISELEV, N.V., retsenzent; KLEGG, D.I., retsenzent; SHVAGIREV, Ya.D., retsenzent; DUKHOVNYY, F.N., red.; TRISHINA, L.A., tekhn. red.

[Equipment and mechanization of glass factories]Oborudovanie i mekhanizatsiia stekol'nykh zavodov. [By] K.L.Veinberg i dr. Moskva, Rostekhizdat, 1962. 451 p. diagrs. (MIRA 15:10)
(Glass—Equipment and supplies)

APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R001859630008-1"

"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R001859630008-1

VEYNBERG, K.L.; KOSSOY, B.S.; NOL'KEN, M.P.; REZNIKOV, M.I.; KADANER, N.I., red. izd-va; RUDAKOVA, N.I., tekhn. red.

[Equipment for glass plants] Oborudovanie stekol'nykh zavodov. Pod red. M.I.Reznikova. Izd.2., ispr. i dop. Moskva, Gos. izd-vo lit-ry po stroit., arkhit. i stroit. materialam, 1961. 618 p. (MIRA 14:8)

(Glass manufacture—Equipment and supplies)

APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R001859630008-1"

"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R001859630008-1

APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R001859630008-1"

"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R001859630008-1

APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R001859630008-1"

"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R001859630008-1

VEYNBERG, K.L.; KOSSOY, B.S.; NOL'KEN, M.P.; REZNIKOV, M.I., redaktor; GRINBERG, I.F., redaktor; PANOVA, L.Ya., tekhnicheskiy redaktor.

[Glass factory equipment; installation, operation, repair] Oborudovanie stekol'nykh zavodov; ustroistvo, ekspluatatsiia, remont. Moskva, Gos.izd-vo lit-ry po stroitel'nym materialam, 1952. 555 p. [Microfilm] (MLRA 7:10)
(Glass manufacture)

APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R001859630008-1"

"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R001859630008-1

VEYNBERG, K. L.

Oborudovanie stekol'nykh zavodov [Glass factory equipment]. Moskva, Promstroizdat, 1952. 550 p.

SO: Monthly List of Russian Accessions, Vol. 6 No. 12 March 1954.

APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R001859630008-1"

"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R001859630008-1

BREKHOVSKIKH, S.M. [reviewer]; VEYNBERG, K.L.; KOSSOY, B.S.; NOL'KEN, M.P.; REZNIKOV, M.I. [authors].

Useful manual ("Glass manufacturing plant equipment." K.L.Veinberg, B.S.Kossoi, M.P.Nol'ken, M.I.Reznikov. Reviewed by S.M.Brekhovskikh). Stek.i ker. 10 no.12:27-29 D '53. (MLRA 6:11)
(Glass manufacture) (Veinberg, K.L.) (Kossoi, B.S.)

APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R001859630008-1"

"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R001859630008-1

VEYNBERG, Kh.O., sostavitel'; GUSEV, P.A., redaktor; NIKOLENKO, A., redaktor; STRELETSKIY, I., tekhnicheskiy redaktor.

[Handbook of work and wages] Spravochnik po trudu i zarplate. Moskva, Gos. izd-vo legkoi prom., 1954. 159 p. (MLRA 7:11)

1. Russia (1923- U.S.S.R.) Narodnyy komissariat tekstil'noy promyshlennosti.
(Labor laws and legislation)

APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R001859630008-1"

"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R001859630008-1

VEYNBERG, L. B.

Application of the Faraday Method of Mapping the Magnetic Field by Lines of Force to the Interpretation of the Results of Magnetic Surveys. Trudy GGO, No. 17, (1938)

APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R001859630008-1"

"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R001859630008-1

APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R001859630008-1"

"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R001859630008-1

9(2) SOV/112-59-1-1698

Translation from: Referativnyy zhurnal. Elektrotekhnika, 1959, Nr 1, p 240 (USSR)

AUTHOR: Veynberg, M. D.

TITLE: Tool Smith Ye. N. Demin. A Device for Assembling a Variable-Capacitor Unit

PERIODICAL: Radiotekhn. proiz-vo, 1957, Nr 15, pp 51-55

ABSTRACT: An efficiency suggestion by a tool smith, Ye. N. Demin, is described. It is a device for assembling the rotors of a variable-capacitor unit by means of pressing the plates into rotor-spindle slots on an eccentric press. In constructing this device, sizing of insert pieces with a tolerance of $\pm$ 0.02 mm after they have been hardened proved to be a most difficult process. Ye. N. Demin's suggestion permits substituting grinding of the whole package of insert pieces for manual template making. The technology of and devices for this work are described. To prevent hardening deformation, hot inserts are

Card 1/2

APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R001859630008-1"

"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R001859630008-1

SOV/112-59-1-1698

Tool Smith Ye. N. Demin. A Device for Assembling a Variable-Capacitor Unit

quickly squeezed between the plates leaving 5-6-mm edges open along the entire outline. Methods for making pressmolds and securing internal die profiles are described. A method for preventing cracks in punches as a result of plate movement is reported.

Z.L.P.

Card 2/2

APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R001859630008-1"

"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R001859630008-1

8(0), 9(0) SOV/112-59-5-9460

Translation from: Referativnyy zhurnal. Elektrotekhnika, 1959, Nr 5, p 143 (USSR)

AUTHOR: Veynberg, M. D.

TITLE: Ferroresonance Voltage Stabilizer With a Toroid Magnetic Circuit

PERIODICAL: Radiotekhn. proiz-vo, 1957, Nr 15, pp 56-58

ABSTRACT: Using a toroidal magnetic circuit and a series-resonance scheme for the stabilizer brings about a better output-voltage stability under conditions of supply-voltage, frequency and load fluctuations. Magnetic dispersion of the toroid core is 20-30 times lower. The scheme and construction of a 30-va stabilizer are presented; the stabilizer holds the output voltage within 0.5% when the input voltage varies ± 10% and the load ± 25%. The specific capacity per unit weight of the magnetic circuit is 20 va/kg as compared to an older design with an L-shape core that had 9.5 va/kg. Five illustrations.

V. Ye. Kh.

Card 1/1

APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R001859630008-1"

"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R001859630008-1

ROMADAN, I.A.; VEYNBERG, M.M.

Alkylation of p-cresol by molecular compounds of alcohols with BF_3 at elevated pressure. Zhur. ob. khim. 34 no. 5: 1538-1543 My '64. (MIRA 17:7)

1. Rizhskiy politekhnicheskiy institut.

APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R001859630008-1"

"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R001859630008-1

VEYNBERG, T.I., kand.khim.nauk

Light filter for correcting the spectral sensitivity of selenium photocells. Svetotekhnika 4 no.6:20 Je '58. (MIRA 11:6)

1.Gosudarstvennyy opticheskiy institut.
(Light filters) (Photoelectric cells)

APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R001859630008-1"

"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R001859630008-1

Veynberg, V. N.

AUTHOR: Syritskaya, Z. N. S/072/60/000/03/021/025
B002/B008

TITLE: 3rd All-Union Conference on the Vitreous State

PERIODICAL: Steklo i keramika, 1960, Nr 3, pp 43-46 (USSR)

ABSTRACT: The 3rd All-Union Conference on the Vitreous State was held in Leningrad at the end of 1959. It was organized by the Institut khimii silikatov AN SSSR (Institute of the Chemistry of Silicates AN SSSR), Vsesoyuznoye khimicheskoye obshchestvo imeni D. I. Mendeleyeva (All-Union Chemical Society imeni D. I. Mendeleyev) and Gosudarstvennyy opticheskiy institut imeni S. I. Vavilova (State Optical Institute imeni S. I. Vavilov). More than 100 reports on the structure of glass, investigation methods of the vitreous state, the mechanism of vitrification and physicochemical and technical properties of glasses were delivered. The Conference was opened by Academician A. A. Lebedev.

At the 7th meeting, 6 reports dealt with glasses as semiconductors, 9 with the coloring of glasses and the influence of radiation and 4 reports with technical properties of glasses. . . . . V. V. Varkin and T. N. Veynberg, "Coloring of Glasses in Connection With Their Structure". N. I. Vlasova, Ye. I. Gilmut, A. A. Kafali, "Absorption Spectrum of the Co^{2+} Ion as Indicator for the Coordination of Boron and Aluminum in Glasses". V. P. Shabiev and N. V. Berbich reported on the change of the spectral absorption of glasses of simple composition under the influence of gamma rays. S. G. Karapetyan reported on the influence of the structure of glasses on spectral and chemical properties of the Cr-ions. N. F. Gorbov reported on the role of the admixtures and the crystalline state of the lattice in the coloring of quartz glass by gamma radiation. L. M. Blyumen and R. L. Shuster reported on the physicochemical nature of pore formation in silicate melts (foam glass, cermetite). Ye. V. Yermolayeva reported on physico-chemical investigations of melts of refractory oxides in a state of equilibrium. I. P. Pozzuoli, "The Importance of the Vitreous Phase in the Formation of the Ceramic Body and the Cement Clinker". V. A. Prusnov reported on the physico-

Card 6/8

chemical fundamentals of the fusing of glass and metal. The 6th meeting dealt with physical chemistry and mechanical properties of glass. K. S. Yevstrop'yev, G. M. Bartenev and S. K. Dubrovo made comprehensive reports. A. A. Appen reported on the fundamental structural parameters which determine the properties of the glass. A. V. Gladkov, V. A. Matobyl'skaya, V. V. Tarasov reported on research results of the polymeric structure of inorganic glasses. L. I. Demkina reported on peculiarities of the expansion of oxides in silicate glasses. V. G. Slavyanskiy reported on the subject: "The Energy of Covalent Bonds in Glass and Their Role in the Process of the Viscous Flux". Z. N. Syritskaya reported on physico-chemical properties of alumophosphate glasses. Yu. A. Shmidt reported on the dependence of the properties of alkali silicate glasses on the composition. Z. N. Shcheglova reported on: "Investigation of the Dependence of the Optical Properties of Phosphate Glasses on the Composition". A. K. Yakhkind reported on the subject: "The Periodic System and the Optical Constants of Glass". N. S. Aslanova reported on: "Mechanical Properties of Glass Fibers". G. K. Tarlenov, A. N. Yerzhirova made a report on the mechanical properties of inorganic glasses in the anomalous interval and on their structure. Yu. I. Koslovskaya reported on the elastic properties of glasses and on the influence of the composition of the glasses on their mechanical

Card 7/8

properties. A. V. Abrasyan reported on the subject: "Leaching of Melten Glasslike Basalts by Aqueous Solutions of Acids and the State of the Oxides in the Structure of Glass Basalts". Z. M. Brekhovskikh and V. P. Sesorova reported on synthesis and investigation of hafnium silicate glasses. S. K. Dubrovo reported on physico-chemical properties of gallium silicate glasses. V. A. Dubrovskiy and T. G. Dubrovskaya reported on the surface film forming on calcium-sodium glass in the acidic, neutral and basic medium. The following persons reported at the final meeting: V. P. Fokerina on the influence of the alkaline earth oxides on the chemical stability of glasses in a humid atmosphere; L. Yu. Maselov on vitrification and properties of borate glasses; B. P. Nikol'skiy, Ye. A. Materova and V. I. Moiseyev on the reaction of electrode glasses with solutions. Doctor Vogel and Roetger spoke as guests from Eastern Germany. Academician N. V. Belov, M. A. Bezborodov, I. I. Kitaygorodskiy, and E. K. Keler also spoke at the final meeting.

Card 8/8

APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R001859630008-1"

"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R001859630008-1

VEYNBERG, T. I.

PROCESSES AND PROPERTIES INDEX

3

Luminescence of glasses. V. V. Vargin and T. I. Veinberg. *Bull. acad. sci. U.R.S.S., Sér. phys.* 9, 763-71 (1945).—The active spots in luminescent glasses can be neutral mols., atoms, or ions. To the first group belong CdS and CdS-CdSe glasses. The luminescence appears during annealing, CdS being formed from Cd silicate and ZnS. Coagulation of CdS stops the luminescence. In the second group are Ag-ce dg. glasses. In glasses cooled rapidly Ag is present partially as an ion and partially as an atom. Annealed to 150-200° in H such glasses become strongly luminescent. Here also, coagulation at higher temp. decreases the luminescence. Glasses contg. Pb, Sb, or Bi as atoms are luminescent. Most luminescent glasses belong to the third group, where conditions are comparable to those in solns. To this group belong glasses contg. rare earth metals. Variations of the chem. compn. of these glasses greatly affect their luminescence spectra. The luminescent compd. in U glasses is the uranyl ion UO_2^{++}. In silicate and borate glasses of the compn. $R_2O.3SiO_2$ and $R_2O.3B_2O_3$, where R = Li, Na, K, Rb, or Cs, the quantum efficiency increases from Li to Cs very considerably. This is attributed to the diminishing action of the elec. field of heavier alkali ions on the uranyl ion. Increase of acidity favors uranyl-ion formation and increases the luminescence. In 3-component glasses of the type $R_2O.RO.5SiO_2$, RO being replaced by alk. earth metals, increase of the at. wt. of the bivalent metal increases the uranate formation and decreases the luminescence. In phosphate glasses the weak luminescence is due to the quadrivalent state of U. Polarization of the luminescence in U glasses indicates the presence of orienting lattice forces. In Mn glasses luminescence is attributed to the Mn^{++}. The difference in color (green in silicate, red in borate and phosphate glasses) is attributed to differences in the coordination number (4 and 6). Glasses show a shorter afterglow than do crystals.

S. Pakswer

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION

APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R001859630008-1"

"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R001859630008-1

Jan/Feb 49

USSR/Physics
Luminescence
Glass

"Luminescence of Glass Containing Copper, Lead, and Samarium," T. I. Veynberg, State Opt Inst, 5 pp

"Iz Ak Nauk SSSR, Ser Fiz" Vol XIII, No 1 p-203-8

Studied luminescence of glasses, activated by copper, lead, and samarium. Most interesting characteristic of copper-activated glass was prolonged and intense postluminescence, duration of which was 10 - 30 minutes, observed during

36/49T97

Jan/Feb 49

USSR/Physics (Contd)

excitation in short-wave ultraviolet region. Graphs show spectral absorption of glasses with samarium, influence of B_2O_3 and SiO_2 content on fluorescence yield for boric and silicate glasses, influence of B_2O_3 content on fluorescence yield of borostrontium glasses and effect of substituting SiO_2 for B_2O_3 on fluorescence yield of borosilicate glasses.

36/49T97

VEYNBERG, T. I.

APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R001859630008-1"

"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R001859630008-1

VEYNBERG, T. I., and VARGIN, V. V., AS USSR

"The Quantitative Estimation of the Influence of Colouring Impurities on the Light Absorption in Glass," a paper submitted at the 4th International Congress of International Commission on Glass, Paris, 2-6 Jul 56.

APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R001859630008-1"

"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R001859630008-1

AUTHORS: Vargin, V. V., Veynberg, T. I. 72-58 5-8/18

TITLE: The Effect of Contaminating Additions on the Light Absorption and Color of Glasses (Vliyaniye zagryaznyayushchikh primesey na svetopogloshcheniye i okrashennost' stekol)

PERIODICAL: Steklo i Keramika, 1958, Vol. 15, Nr 5, pp 25-29 (USSR)

ABSTRACT: Color and light absorption of glasses are dependent on the addition of coloring metals which are introduced by the charge as well as by the products of the corrosion of refractories. In order to investigate the possibility of reducing the light absorption of industrial types of glass it is necessary to find out the composition of the contaminating additions and their sources. For this purpose the method of the analysis of the curves of spectral absorption was used. The concentrations of the coloring matter can be determined by means of a mentioned scheme of formulae when some conditions are met. Investigations showed that in spectrophotometric glass analyses only the following 6 color additions may be expected: Fe_2O_3, FeO, Cr_2O_3, V_2O_5 + VO_2, NiO and CoO. In figure 1 the curves of the coefficients of the specific absorption of the

Card 1/3

APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R001859630008-1"

"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R001859630008-1

six mentioned coloring oxides are listed and then described in detail and explained. In figure 2 the curve of the optical density of a boron silicate type of glass is shown. The concentration of the coloring oxides, the light absorption of each of them and their share in total light absorption are shown on table 1. On table 2 the coefficients of the specific absorption of the six coloring oxides in the glasses of the "Avtosteklo" factory are mentioned and on table 3 the same values for lead-potassium glasses which correspond to crystal glass. The distribution of the absorption between the coloring oxides in the calcareous sodium window glass of the "Avtosteklo" factory is shown in figure 3, and on table 4 the concentration of the coloring oxides, of light absorption and its share in it is found. In this investigation the charge materials were found to be the main source of contamination. Analyses of some sand types, of the Armavir potash and the Chasov Yar clay are carried out in collaboration with I. S. Gorova, Engineer (ref. 2). The results of the analysis of a potash charge produced from vegetable ashes are shown in figure 4 and on table 5. As can be seen from the above, a number of practical problems can be solved by

APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R001859630008-1"

"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R001859630008-1

The Effect of Contaminating Additions on the Light Absorption and Color of Glasses 72-58-5-8/18

means of the method of spectrophotometric glass analysis; this can be taken to promote the increase of the transparency and the reduction of the color of industrial types of glass. There are 4 figures, 5 tables and 4 references, 1 of which is Soviet.

AVAILABLE: Library of Congress

1. Glass--Absorption 2. Glass--Color 3. Glass--Contamination
4. Glass--Test methods 5. Spectrophotometers--Applications

Card 3/3

APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R001859630008-1"

"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R001859630008-1

PHASE I BOOK EXPLOITATION SOV/5035

Vsesoyuznoye soveshchaniye po stekloobraznomu sostoyaniyu. 3d, Leningrad, 1959.

Steklobraznoye sostoyaniye; trudy Tret'yego vsesoyuznogo soveshchaniya Leningrad, 16-20 noyabrya 1959 (Vitreous State; Transactions of the Third All-Union Conference on the Vitreous State, Held in Leningrad on November 16-20, 1959) Moscow, Izd-vo AN SSSR, 1960. 534 p. Errata slip inserted. 3,200 copies printed. (Series: Its: Trudy)

Sponsoring Agencies: Institut khimii silikatov Akademii nauk SSSR. Vsesoyuznoye khimicheskoye obshchestvo imeni D.I. Mendeleyeva and Gosudarstvennyy ordena Lenina opticheskiy institut imeni S.I. Vavilova.

Editorial Board: A.I. Avgustinik, V.P. Barzakovskiy, M.A. Bezborodov, O.K. Botvinkin, V.V.Vargin, A.G. Vlasov, K.S. Yevstrop'yev, A.A. Lebedev, M.A. Katveyev, V.S. Molchanov, R.L. Myuller, Ye.A. Poray-Koshits, Chairman, N.A. Toropov, V.A. Florinskaya, A.K. Yakhkind; Ed. of Publishing House: I.V. Suvorov; Tech. Ed.: V.T. Bochever.

PURPOSE: This book is intended for researchers in the science and technology of glasses.

COVERAGE: The book contains the reports and discussions of the Third All-Union Conference on the Vitreous State, held in Leningrad on November 16-19, 1959. They deal with the methods and results of studying the structure of glasses, the relation between the structure and properties of glasses, the nature of the chemical bond and glass structure, and the crystallochemistry of glass. Fused silica, mechanism of vitrification, optical properties and glass structure, and the electrical properties of glasses are also discussed. A number of the reports deal with the dependence of glass properties on composition, the tinting of glasses and radiation effects, and mechanical, technical, and chemical properties of glasses. Other papers treat glass semiconductors and soda borosilicate glasses. The Conference was attended by more than 300 delegates from Soviet and East German scientific organizations. Among the participants in the discussions were N.V. Solomin, Ye. V. Kuvshinskiy, Yu.A. Gastev, V.P. Pryanishnikov, Yu. Ya. Gotlib, O.P. Mchedlov-Petrosyan, G.P. Mikhaylov, S.M. Petrov, A.N. Lazarev, D.I. Levin, A.V. Shatilov, N.T. Ploshchinskiy, A.Ye. Kuznetsov, E.V. Degtyareva, G.V. Byurganovskaya, A.A. Kalsnov, M.M. Skornyakov, P.Ye. Bokin, E.K. Keller, Ya.A. Kuznetsov, V.P. Poxdnev, R.S. Shevelevich, Z.G. Pinsker, and O.S. Molchanova. The final session of the Conference was addressed by Professor I.I. Kitaygorodskiy, Honored Scientist and Engineer, Doctor of Technical Sciences. The following institutes were cited for their contribution to the development of glass science and technology: Gosudarstvennyy opticheskiy institut (State Optical Institute), Institut khimii silikatov AN SSSR (Institute of Silicate Chemistry, AS USSR), Fizicheskiy institut AN SSSR (Physics Institute AS USSR), Fiziko-tekhnicheskiy institut AN SSSR (Physicotechnical Institute AS USSR), Institut fiziki AN BSSR, Minsk (Institute of Physics, Academy of Sciences, Belorusskaya SSR, Minsk), Laboratory of Physical Chemistry of Silicates of the Institut obshchey i neorganicheskoy khimii AN BSSR, Minsk (Institute of General and Inorganic Chemistry, Academy of Sciences, Belorusskaya SSR, Minsk), Institut vysokomolekulyarnykh soyedineniy AN SSSR (Institute of High Molecular Compounds, AS USSR), Gosudarstvennyy institut stekla (State Institute for Glass), Gosudarstvennyy institut steklovolokna (State Institute for Glass Fibers), Gosudarstvennyy institut elektrotekhnicheskogo stekla (State Institute for Electrical Glass), Sibirskiy fiziko-technicheskiy institut, Tomsk (Siberian Physicotechnical Institute, Tomsk), Leningradskiy gosudarstvennyy universitet (Leningrad State University), Moskovskiy khimiko-tekhnologicheskiy institut (Moscow Institute of Chemical Technology), Leningradskiy tekhnologicheskiy institut im. Lensoveta (Leningrad Technological Institut imeni Lensovet), Belorusskiy politekhnicheskiy institut Minsk (Belorussian Polytechnic Institute, Minsk), Novocherkasskiy politekhnicheskiy institut (Novocherkassk Polytechnic Institute), and Sverdlovskiy politekhnicheskiy institut (Sverdlovsk Polytechnic Institute). The Conference was sponsored by the Institute of Silicate Chemistry AS USSR (Acting Director - A.S. Gotlib), the Vsesoyuznoye khimicheskoye obshchestvo im. D.I. Mendeleyeva (All-Union Chemical Society imeni D.I. Mendeleyev), and the Gosudarstvennyy ordena Lenina opticheskiy institut imeni S.I. Vavilova (State "Order of Lenin" Optical Institute imeni S.I. Vavilov). The 15 resolutions of the Conference include recommendations to organize a Center for the purpose of coordinating the research on glass, to publish a new periodical under the title "Fizika i khimiya stekla" (Physics and Chemistry of Glass), and to join the International Committee on Glass. The Conference thanks A.A. Lebedev, Academician, Professor, and Chairman of the Organization of Committee; Ye.A. Poray-Koshits, Doctor of Physics and Mathematics, Member of the Organizational Committee; and R.L. Myuller, Doctor of Chemical Sciences, Member of the Organizational Committee. The editorial board thanks G.M. Bartenev, M.V. Vol'kenshteyn, L.I. Denkina, D.P. Dobychin, S.K. Dutrovo, V.A. Ioffe, and B.T. Kolomiyets. References accompany individual reports.

APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R001859630008-1"

"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R001859630008-1

Vitreous State (Cont.) SOV/5035

Kozlovskaya, Ye.I. Dependence of Elastic Properties of Glasses on Composition 340

Discussion 343

Color of Glasses and Effect of Radiations

Vargin, V.V. Color of Glass and Effect of Radiations 345

Orlov, N.P. Role of Admixtures and Crystallinity of Network in Phenomena of Quartz Glass Tinting Under the Action of Gamma Rays 346

Danilov, V.P., and N.V. Berbash. Variation in the Absorption Spectrum of Glasses of Simple Composition Under the Action of Gamma Rays 351

Brekhovskikh, S.N. On the Resistance of Commercial Glasses to the Influence of Radioactive Radiations 355

Karaptyan, G.O. Effect of Glass Structure on the Spectral and Chemical Properties of Cerium Ions 360

Card 15/22

Vitreous State (Cont.) SOV/5035

Azarov, K.P., V.V. Balandina, S.B. Grechanova, and V.A. Lyutsedarskiy. Structure and Properties of Iron-Containing Glasses 365

Vlasova, N.I., Ye.I. Galant, and A.A. Kefeli. Absorption Spectrum of the Co^{2+} Ion as the Coordination Indicator of Boron and Aluminum in Silica Glasses 368

Vargin, V.V., and T.I. Weynberg. Color of Glasses in Connection With Structure 372

Discussion 377

Mechanical and Some Technical Properties of Glasses

Bartenev, G.M. Structure and Mechanical Properties of Glass and Glass Fiber 380

Kozlovskaya, Ye.I. Elastic Properties of Glass in Relation to Temperature 387

Card 16/22

Vitreous State (Cont.) SOV/5035

Aslanova, M.S. Mechanical Properties of Glass Fibers 391

Ratobyl'skaya, V.A., and V.V. Tarasov. On Depolymerization of Inorganic Glasses and Mechanical Resonance 396

Ratger, Kh. Determining the Density and Viscosity in Time for Normal Jena Glass 16 III in the Transformation Range 399

Ponomarev, I.F. Importance of the Glass-Forming Phase in the Formation of the Ceramic Body and Cement Clinker 405

Yeremayeva, Ye.V. Physicochemical Study of Fusions of Fire-Resistant Oxides 407

Fresnov, V.A. Structure of Glass and the Nature of Soldering It with Metals 412

Discussion 415

Card 17/22

APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R001859630008-1"

"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R001859630008-1

S/081/60/000/020/001/014
A006/A001

Translation from: Referativnyy zhurnal, Khimiya, 1960, No. 20, p. 45, # 80155

AUTHOR: Veynberg, T.I.

TITLE: Coordination Equilibria of Nickel Ions in Glasses of the K_2O-PbO-SiO_2 System

PERIODICAL: V sb.: Stroyeniye veshchestva i spektroskopiya, Moscow, AN SSSR, 1960, pp. 84-92

TEXT: It is established that in glasses of the K_2O-PbO-SiO_2 system the coordination equilibria of nickel ions depend basically on the correlation between K_2O and PbO oxides and not between SiO_2 and basic oxides. The greatest amount of nickel ions is coordinated with four oxygen ions at approximately equal amounts of K_2O and PbO, and a SiO_2 content of 60 to 80 molar %. The coordination of nickel ions with four oxygen ions requires the presence of an alkaline oxide in the glass composition; in case of its absence, nickel is coordinated with six oxygen ions. An increased content of PbO in respect to K_2O shifts the equilibrium towards the side of nickel ions with the coordination number 6 as a result of the

Card 1/2

APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R001859630008-1"

"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R001859630008-1

S/081/60/000/020/001/C14
A006/A001

Coordination Equilibria of Nickel Ions in Glasses of the K_2O-PbO-SiO_2 System

fact that Pb^{2+} ions require for saturation eight oxygen ions; under such conditions Ni^{2+} ions can only perform weaker bonds with six oxygen ions at greater distances. It is shown that the method of spectrophotometric analysis of the curves of spectral absorption permits the qualitative determination of concentrations of various forms of coloring ions, and to establish the equilibrium relation between them and the glass composition. 15

B. Yegorov

Translator's note: This is the full translation of the original Russian abstract.

Card 2/2

APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R001859630008-1"

"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R001859630008-1

PHASE I BOOK EXPLOITATION SOV/4186

Akademiya nauk SSSR

Stroyeniye veshchestva i spektroskopiya (Structure of Matter and Spectroscopy) Moscow, Izd-vo AN SSSR, 1960. 113 p. Errata slip inserted. 2,300 copies printed.

Ed.: K. V. Astakhov, Professor; Tech. Ed.: T. P. Polenova.

PURPOSE: This collection of articles is intended for physicists and chemists interested in spectroscopic methods of research on the structure of molecules and related problems.

COVERAGE: The articles contained in this collection were taken from the editorial files of the Zhurnal fizicheskoy khimii (Journal of Physical Chemistry) and are concerned with spectroscopic methods in research on the structure of molecules, the hydrogen bond, isotopic effects, problems in magnetochemistry, the structure of aqueous solutions of electrolytes, and the chemistry of complex compounds. References accompany individual articles.

The author thanks the following for having participated in determining the density of deuterocompounds: V. G. Golov, P. N. Nikolayev, V. I. Kucheryavyy, Ye. Z. Zhuravlev, V. I. Murzin, and L. S. Zhilkin. He thanks A. I. Brodskiy for his discussion of the results.

Ar'yev, A. M., and M. S. Al'tshuler [Novocherkasskiy politekhnicheskiy institut (Novocherkassk Polytechnic Institute)]. Problem of Change in the Structure of Polyethylene at Plane-Radial Extension 69

Rabinovich, I. B., V. M. Salov, Ye. I. Novikova, S. D. Ravikovich, and V. M. Nikolayev [Gor'kiy State University imeni N. I. Lobachevskiy]. Isotopic Effect on the Viscosity of Deuteroalcohols 73

Vasilin, M. I., V. M. Yermenko, and V. V. Pasenko. Investigation of Surface Tension of Liquid Metal Solutions. I. Surface Tension of a Lead-Silver System 78

Veynberg, T. I. Coordination Equilibria of Nickel Ions in K_2O - PbO - SiO_2 System Glasses 84

Kolesova, V. A. [Institut khimii silikatov (Institute of the Chemistry of Silicates)]. Structure of Spodumene Glass 93
V. I. Aver'yanov is thanked for having plotted the curves for α- and β- spodumene and for the crystallization product of spodumene glass.

Rabane, T. K. [Physicochemical Institute imeni L. Ya. Karpov]. Calculation of Excess π-Electron Diamagnetic Susceptibility of Certain Molecules Containing the Six-Member Carbon Ring With the Aid of the Free Electrons Model 96
The author thanks I. N. Kalachevaya and B. Ye. Samosulov for the numerical calculations, and Ye. N. Gur'yanova and M. N. Adamov for their suggestions.

Suvorov, O. Ya., and M. N. Buslayeva [Institut obshchey i neorganicheskoy khimii im. N. S. Kurnakova (Institute of General and Inorganic Chemistry imeni N. S. Kurnakov)]. Temperature Dependence of Coordination Numbers of Alkali Metal Cations in Aqueous Solutions 102

Yazin, O. A. [Ural'skiy politekhnicheskiy institut im. S. M. Kirova (Ural Polytechnic Institute imeni S. M. Kirov, Sverdlovsk)]. Form of Surface Tension Isotherms 111

AVAILABLE: Library of Congress

JA/dwm/ec
10-20-60

Card 6/6

Veynberg, T. I.

APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R001859630008-1"

"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R001859630008-1

15.2120 1142, 3109, 3309

23349 S/058/61/000/006/036/063
A001/A101

AUTHORS: Vargin, V.V., Veynberg, T.I.

TITLE: Color of glasses in connection with their structure

PERIODICAL: Referativnyy zhurnal. Fizika, no. 6, 1961, 224, abstract 6D273 (V sb. "Steklobrazn. sostoyaniye", Moscow-Leningrad, AN SSSR, 1960, 372 - 377, Discus. 377 - 379)

TEXT: The authors investigated absorption spectra of Co^{2+} in alkali aluminophosphate and alkali zinc-phosphate glasses and Ni^{2+} in potassium lead silicate glasses. It was found out that coordination equilibria of Co^{2+} ions reflect the coordination state of ions of Zn^{2+} and Al^{3+} in phosphate glasses. On the basis of the investigation conducted, the authors arrive at the conclusion that ions of Al^{3+} and Zn^{2+} in metaphosphates of Al and Zn are mainly in the quadruple coordination. It was found out that coordination equilibrium of Ni^{2+} ions in silicate lead glasses is mainly due to the ratio of alkaline oxide to PbO. At the value of this ratio being equal to 1, the whole content of Ni in glass is in the quadruple coordination. There are 17 references.

T. Veynberg

[Abstracter's note: Complete translation]

Card 1/1

APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R001859630008-1"

"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R001859630008-1

25305

S/080/61/034/002/004/025
A057/A129

24.3950
15.2120

AUTHOR: Veynberg, T.I.

TITLE: Crystallizability, density and optical properties of glasses of the potassium-beryllium-phosphate system

PERIODICAL: Zhurnal Prikladnoy Khimii, v 34, no 2, 1961, 277-282

TEXT: The ternary system K_2O-BeO-P_2O_5 was investigated, and regions of vitreous state, as well as regions of non-hygroscopic glasses with low crystallizability, were determined. Density and optical constants of the obtained glasses were also studied. The investigation method was described in a previous paper (Ref 2: ZhPKh, 32, 8, 1685 (1959)). The glass samples were molten between 1,100° and 1,450°C. It can be seen from the diagram obtained (Fig 1) that the region of glassforming compositions is in the system investigated much greater than in other phosphate systems. In the present system there is a region of chemically resistant glasses with low

Card 1/6

APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R001859630008-1"

"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R001859630008-1

25385

S/080/61/034/002/004/025
A057/A129

Crystallizability, density ...

crystallizability which are of practical interest. Special experiments demonstrated that addition of beryllium oxide in some phosphate glasses decreases considerably the crystallizability and increases chemical resistance. Density was determined by hydrostatic weighing in toluene. The obtained results indicate (Fig 2) that at a maximum P_2O_5 content (50-60 mole%) glass density is 2.36-2.37. From these data densities for BeO, P_2O_5, and K_2O were calculated to be 3.00, 2.3 and 2.63, respectively, which values agree with literature data. Density values of the components were used to calculate densities of several glasses in the investigated system (Fig 3) and a good agreement between calculated and experimental values was observed. There are no deviations in density effected by a sharp change in the structure of the glass. Optical properties of K_2O-BeO-P_2O_5 glasses (Fig 3) demonstrate that these glasses embrace regions on the Abbe diagram which are outside of the region occupied by other glasses, particularly phosphate glasses. Beryllium glasses have a small dispersity and relative high refractive index. Of greatest practical interest are glasses with high BeO content. The possibility to extend also the region

Card 2/6

APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R001859630008-1"

"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R001859630008-1

of phosphate crown glasses is important. By addition of BeO to phosphate crown glasses, glasses with optical properties different from those obtained until now can be manufactured. Besides, these glasses are more chemically resistant and less crystallizable. There are 3 figures and 4 references: 1 Soviet-bloc and 3 non-Soviet-bloc. The English-language reference reads as follows: A.N. Campbell, A.J. Campbell, Trans. Farad. Soc., 31, 11 (1935).

SUBMITTED: May 4, 1960

APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R001859630008-1"

"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R001859630008-1

VEYNBERG, T.I. (Leningrad)

Absorption spectra of cobalt ions in potassium-zinc-phosphate glasses. Zhur. fiz. khim. 36 no.1:81-88 Ja '62. (MIRA 16:8)

(Cobalt—Spectra) (Glass, Colored)

APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R001859630008-1"

"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R001859630008-1

33692
S/076/62/036/002/003/009
B119/B101

15 2120

AUTHORS: Veynberg, T. I., and Makhlina, G. A. (Leningrad)

TITLE: Study on the coloring of phosphate glasses with molybdenum ions

PERIODICAL: Zhurnal fizicheskoy khimii, v. 36, no. 2, 1962, 282 - 288

TEXT: The authors produced phosphate glasses of different compositions with an Mo content of 0.5 and 1% (added to the initial mixture as MoO_3 or molybdic acid) by melting in quartz crucibles in the presence of reducing or oxidizing agents. Their absorption spectra from ~200 to 1200 mμ were studied with a photoelectric spectrometer. The glasses obtained were colorless, blue-green, green, brown-green, violet, and yellow according to their content of Mo^{6+}, Mo^{5+}, Mo^{4+}, and Mo^{3+}. Absorption maxima of the individual valence stages of Mo: Mo^{6+} in the ultraviolet region, Mo^{5+}: 720 and 380 mμ, Mo^{4+}: 540 mμ, Mo^{3+}: 440 and 360 mμ. Most glasses proved to have several valence stages simultaneously. The authors

Card 1/3

APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R001859630008-1"

"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R001859630008-1

33692

S/076/62/036/002/003/009
B119/B101

Study on the coloring of...

determined the extinction coefficients of the different valence stages of Mo in the glasses, and calculated the contents of trivalent, quadrivalent, quinquevalent, and sexivalent Mo. The method is described in previous papers by T. I. Veynberg (Steklo i keramika, no. 5, 1958; Zh. fiz. khimii, 36, 348 (1962)). The valence of Mo in the glass is due to the type of reducing or oxidizing agents and glass composition. An Sn (metal) addition of 0.5 - 0.75% to a glass mixture composed of 10 K_2O, 40 ZnO, 50 P_2O_5 (mole-%) causes a considerable decrease of Mo^{6+} in favor of Mo^{5+}. Mo^{3+} is the only valence stage occurring in the presence of 3% Sn and was found also in the above mixture. $NH_4H_2PO_4$ causes the formation of quinquevalent, trivalent, and quadrivalent Mo (the latter only in small amounts) in equilibrium hardly changed by different amounts of ammonium phosphate. Glasses composed of 10 K_2O, 50 P_2O_5, and 40 MgO, CaO, BaO, or BeO (in mole-%) with 2% C as reducing agent are of different colors according to the oxide of an alkaline earth metal. Thus, molybdenum is suited to be used as a dyestuff in the production of light filters. A paper by V. V. Vargin (Proizvodstvo tsvetnogo stekla (Production of colored

Card 2/3

APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R001859630008-1"

"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R001859630008-1

33692

S/076/62/036/002/003/009
B119/B101

Study on the coloring of...

glass) 1940, p. 131) is mentioned. There are 9 figures and 8 references: 7 Soviet and 1 non-Soviet. The reference to the English-language publication reads as follows: W. Weyl, Coloured Glasses, Sheffield, 1951.

SUBMITTED: April 12, 1960

X

Card 3/3

APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R001859630008-1"

"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R001859630008-1

L 4171-66 EWP(a)/EWT(m)/EWP(i)/EWP(b) WR

ACC NR: AP5025715 SOURCE CODE: UR/0286/65/000/018/0070/0070

INVENTOR: Vargin, V. V.; Veynberg, T. I.; Stepanov, S. A.

40
B

ORG: none

TITLE: Glass. Class 32, No. 174771

SOURCE: Byulleten' izobreteniy i tovarnykh znakov, no. 18, 1965, 70

TOPIC TAGS: optic glass

ABSTRACT: An Author Certificate has been issued for a glass which exhibits optical activity in magnetic fields. The glass has the following composition (molar %): SiO_2, 20—35; B_2O_3, 20—40; ZnO, up to 10; CdO, up to 10; BaO, up to 20; plus Tb_2O_3, 10—32.5%. [BO]

SUB CODE: MT, OP SUBM DATE: 03Aug64/ ORIG REF: 000/ OTH REF: 000/ ATD PRESS: 4137

UDC: 666.112.7
666.117.9

Card 1/1

APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R001859630008-1"

"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R001859630008-1

ACC NR: AT6030178 SOURCE CODE: UR/0237/66/000/008/0038/0040

AUTHOR: Veynberg, T. I.; Lan'kin, S. P.

ORG: none

TITLE: Measurement of the spectral absorption of glasses colored with transition-metal ions at increased temperatures

SOURCE: Optiko-mekhanicheskaya promyshlennost', no. 8, 1966, 38-40

TOPIC TAGS: silicate glass, borate glass, glass property, color additive, absorption spectrum, light absorption, temperature dependence

ABSTRACT: The purpose of the investigation was to determine the character and causes of changes in the absorption spectra of coloring ions in glasses at increased temperatures. Silicate, borosilicate, alumosilicate, and phosphate glasses of varying compositions, with and without coloring ions, were tested. The coloring ions used were Co^{+2}, Cu^{+2}, Fe^{+2} and Cl^{-}. The absorption spectra were measured in the visible (from 400 to 750 nm), ultraviolet, and infrared regions at 20, 100, 300, and 400C, except when the annealing temperature of the glass was lower than 400C, when the measurements were made at 300C. The spectral absorption was also measured after the cooling of the sample, to establish whether the change in the spectral absorption is reversible. The investigation has shown that all glasses exhibit common changes in the absorption spectra, namely shift of the boundaries and of the maxima of the absorption bands toward the longer-wave region and smearing of the absorption bands. These changes are re-

Card 1/2 UDC: 666.11: 535.34

APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R001859630008-1"

"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R001859630008-1

L 10250-67

ACC NR: AP6030178

versible in character provided the sample is not heated above the annealing temperature. The changes are governed not by structural transformation but by intensification of the thermal oscillations of the individual particles in the glass. The smearing of the bands is under the influence of the coordination and valence transitions of the transition-metal ions. The temperature shift can reach 20 - 50 nm for each 100C. It is also concluded that the temperature variations of the spectral absorption of coloring ions can be used for the study of structural transformations in the glass. Orig. art. has: 5 figures.

SUB CODE: 11,20 SUBM DATE: 04Jun66/ ORIG REF: 002/ OTH REF: 001

Card 2/2

APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R001859630008-1"

"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R001859630008-1

ACC NR: AP6030720 (A,N) SOURCE CODE: UR/0368/66/005/002/0228/0235

AUTHOR: Zhmyreva, I. A.; Kolobkov, V. P.; Veynberg, T. I.; Makhlina, G. A.

ORG: none

TITLE: Study of the luminescence of glass activated by holmium

SOURCE: Zhurnal prikladnoy spektroskopii, v. 5, no. 5, 1966, 228-235

TOPIC TAGS: luminescence, holmium, rare earth metal, glass, absorption band, energy band structure, radiation intensity, quantum generator

ABSTRACT: This study was made in order to obtain additional data on the mechanism of interaction of rare earth activators with glass inasmuch as such information might make it possible to utilize glass in the design of optic quantum generators. The absorption and luminescence characteristics of glass of various composition activated by holmium were studied in the 4300-30000 cm -1 range at room temperature as well as low temperature. A diagram of the energy levels and the transitions between them was drawn for the trivalent holmium ion in the glass on the basis of the position of the absorption and luminescence bands. The luminescence of holmium in the glass was concentrated predominantly in the 5000 cm^{-1} band (transition 5/7 → 5/8). Therefore, the effect of glass composition, activator concentration, and temperature on the form, position, intensity, and duration of the 5000 cm^{-1} was studied in detail. A level

Card 1/2

UDC: 666.11.01:535.34137

APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R001859630008-1"

"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R001859630008-1

ACC NR: AP6030720

splitting diagram was drawn for holmium levels 5/7 and 5/8 in the glass on the basis of change of the 5000 cm^{-1} band structure with temperature. The experimental results show that 1) the intensity and duration of luminescence in the 5000 cm^{-1} band vary greatly in the different glass compositions, 2) the BS-14 alumocalcium glass compositions have the brightest luminesce and simultaneously the longest luminescence amounting to about 4×10^{-3} sec at Ho_2O_3 concentrations of 1% by weight, 3) the luminescence duration in the different glass compositions is not correlated with their luminescence intensity, 4) the quenching of luminescence in BS-14 glass compositions sets in at quite low Ho_2O_3 concentrations and substantially decreases the luminescence duration even at an increase of Ho_2O_3 concentration from 0.25 to 0.5, and 5) the temperature effect on the intensity and duration of luminescence in the various glass composition is relatively slight. The authors thank M. V. Yepifanov for his aid in the work with the ultra-traumeter and V. A. Sokolov and L. N. Galkin for measuring the intensity and duration of luminescence of some of the samples. Orig. art. has: 4 figures and 3 tables.

SUB CODE: 20,11/ SUBM DATE: 05Apr65/ ORIG REF: 003/ OTH REF: 007

Card 2/2

APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R001859630008-1"

"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R001859630008-1

L 27384-66 EWP(e)/EWT(m) WH/JD/JG

ACC NR: AP6015595 SOURCE CODE: UR/0368/66/004/005/0434/0441

AUTHOR: Kudryashov, P. I.; Veynberg, T. I.; Kolobkov, V. P.

ORG: none

43

B

TITLE: Luminescence properties of glasses activated with erbium 27

SOURCE: Zhurnal prikladnoy spektroskopii, v. 4, no. 5, 1966, 434-441

TOPIC TAGS: luminescence, luminescence quenching, luminescence spectrum, erbium compound, activated crystal

ABSTRACT: Investigations were made of the spectra, intensities, and duration of luminescence of a large number of inorganic glasses of different composition. The absorption and luminescence bands which were observed were identified as transitions between the definite ^2L_j - levels of the Er^{3+} ion. The main part of the luminescence output for all compositions was shown to be due to the $^4I_{13/2} \rightarrow {}^4I_{15/2}$ transition band, with $V_{max} = 6500\ cm^{-1}$. The 6500 cm^{-1} band was very intensive in silicate glasses (65% SiO_2) and in calcium aluminate glasses. The majority of phosphate glasses had intensities 3 to 5 times smaller than in the glasses mentioned above. Boron-based glasses had especially weak luminescence. The luminescence duration in erbium-containing glasses in general changes as intensity changes. Silicate and calcium aluminate compositions displayed the longest duration of luminescence (1.5×10^{-2} sec); the shortest (5×10^{-4} sec) was found in boron glasses. The effect

Card 1/2

UDC: 666.11.01:535.37+535.34

APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R001859630008-1"

"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R001859630008-1

L 27384-66

ACC NR: AP6015595

of glass composition on the quenching of erbium luminescence can be determined mainly from the variation in the probability of nonradiative deactivation of the $^4I_{13/2}$ metastable state. A change in activator concentration from 0.5 to 8 wt% caused a decrease in the lifetime from 1.5×10^{-2} to 0.6×10^{-2} sec. Temperature changes within a range from 400 to -196C had no effect on the intensity and duration of luminescence. A diagram of the crystal splitting of the $^4I_{13/2}$ and $^4I_{15/2}$ levels of Er^{3+} ions in glass was constructed on the basis of results from the investigation of the influence of temperature on the band structure. Orig. art. has: 4 figures and 3 tables.

[JA]

SUB CODE: 20/ SUBM DATE: 09Apr65/ ORIG REF: 002/ OTH REF: 012/ ATD PRESS: 4259

Card 2/2

APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R001859630008-1"

"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R001859630008-1

VEYNBERG, V.

Cinematography

Control of time. Nauka i zhizn' 20, No. 2, 1953.

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

APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R001859630008-1"

"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R001859630008-1

VEYNBERG, V. B.

Optics, Physiological Optics (6674)
Probl. Fiziol. Optiki, (No) 8, 1953, pp 325-329
Veynberg, V. B., Nikolskaya, N. A.
Tables for Measuring Visual Acuity

Attempts to improve patterns of the Landolt ring and compile new tables.

So: Moscow, Referativnyy, Zhurnal -- Fizika, No 6, 1954 W-31059

APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R001859630008-1"

"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R001859630008-1

VEYNBERG, V. B.

VEYNBERG, V. B. -- "The Optical Arrangement in Installations for the Utilization of Solar Energy." State Order of Lenin Optical Inst imeni S. I. Vavilov, Leningrad, 1956. (Dissertation for the Degree of Doctor of Technical Sciences)

SO: Knizhnaya Letopis' No 44, October 1956

APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R001859630008-1"

"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R001859630008-1

VAYNBERG, V.B.

SUBJECT USSR / PHYSICS CARD 1 / 4 PA - 1588
AUTHOR VAJNBERG, V.B., MAL'CEV, JU.B.
TITLE On the Transformation of Radiation into Electricity.
PERIODICAL Žurn.techn.fis, 26, fasc.10, 2373-2377 (1956)
Issued: 11 / 1956

In the course of two previous investigations (A.F.IOFFE, Poluprovodnikovye termoelementy (= semiconductor thermoelements), published by the Academy of Science in the USSR (1956), M.TELKES, Appl.Phys. 25, 8, 1058 (1954)) on the best conditions for the transformation of radiation into electricity by means of heat, the processes in the heater were disregarded. The thermal flow q to be abducted from the heater into the heating machine is connected in the following manner with the radiation current F impinging upon the surface with the temperature T of the heat-abducting surface, and with the temperature T_0 of the surrounding air:

$$q = F \sum_{\nu=1}^{\nu=k} (k_r/k_\nu) \Delta A_\nu - k (T - T_0) - c dT/d\tau$$

Here ΔA_ν denote the absorption coefficients of the individual layers of the system, k_ν and k_r - the coefficients of the heat transfer from these layers and from the working material to the surrounding atmosphere; $k = k_r + k_i$ - the ratio between the total heat losses of the heater and the difference in temperature $T - T_0$, τ - the time, c - the effective heat capacity of the heater.

APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R001859630008-1"

"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R001859630008-1

The function $y = \sum_{\nu=1}^{\nu=k} (k_r/k_\nu)\,\Delta A_\nu$ is a "collecting coefficient". Here a steady system with $dT/d\tau = 0$ is studied, in which case it is true that $q = k(T_M - T)$. Here T_M denotes the temperature of the heater at $q = 0$, and k has the same value as at the operation temperature T. The system supplies the electric power $P = \eta_o\, q\,(T - T_o)/T$ to the consumer. Here η_c denotes the perfection coefficient of the heat machine, namely the ratio between its range of action and the range of action η_k of CARNOT'S cyclic process. If k and η_o are independent of temperature, the degree of efficiency of the transformation is a maximum at $T_{opt} = \sqrt{T_o\, T_M}$ and it is true that

$$\eta_M = y\,\eta_o \frac{\sqrt{T_M} - \sqrt{T_o}}{\sqrt{T_M} - \sqrt{T_o}} = \frac{y\,T_{opt}}{T_{opt} + T_o}\,\eta_o\,\frac{T_{opt} - T_o}{T_{opt}}$$

In sun generators the heat current which can be abducted via the thermoelements to the cooler and which is necessary for attaining the electric power output, amounts to $q = k_o\,(T - T_o)$. Here k_o is the coefficient of the heat transfer of the thermopile.

Next, T_M and η_M are discussed for the special case that $k_o/k = n$ does not de-

APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R001859630008-1"

"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R001859630008-1

pend on the ratio between exterior load on resistance and resistance in the pile. At low temperatures it holds that $n \sim 1$, $T_{opt} \sim (T_M + T_o)/2$; the corresponding expression for η_M is given.

In the case of optimum operation it applies in systems constructed for operation at low temperatures that $\eta_N \sim y/2$ and for systems for high temperatures η_N is somewhat higher. In the case of such a mode of operation the heat current abductable from the heater into the heating machine or into the thermopile is analogous to the heat losses of the heater or somewhat higher. Optimum heat transfer can be ascertained by a suitable selection of the vapor consumption of the heating machine or of the length and the cross section of the thermoelectrodes of the thermopile. The characteristics of optimum operating conditions of various types of sun-heating systems were calculated for conditions prevailing during summer in Central Asia; results are shown in a table. The amount of solar energy radiated per day by the sun was assessed at 9 kilowatt hours per m^2, and air temperature was assumed to be + 20° C. The heat consumption used for heating the apparatus and the period during which the apparatus was in operation were taken into account. The daily yield of electric energy was determined for various degrees of efficiency of the steam generators. In sun heating systems with parabolic mirrors an operating

APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R001859630008-1"

"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R001859630008-1

temperature of 450° C was assumed because the material cannot stand up to the theoretical optimum of temperature.
The yield of electric energy referred to 1 m^2 radiation cross section cannot exceed 100 to 150 watts/hour in the case of steam systems without concentration of solar radiation, and in systems with such concentration it may attain 2 kilowatt hours/m^2. Thermoelectric systems have hitherto yielded only a third or fourth part of these amounts of energy. The degrees of efficiency of sun-steam electric plants found here are a near approach to the values computed by another method in the Energetical Institute of the Academy of Science in the USSR under the supervision of V.A.BAUM.

INSTITUTION:

APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R001859630008-1"

"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R001859630008-1

VEYNBERG, V.B.

Call Nr: AF 1133946

AUTHOR: See Table of Contents

TITLE: Use of Solar Energy (Ispol'zovaniye solnechnoy energii), Volume I (Sbornik 1)

PUB.DATA: Izdatel'stvo Akademii nauk SSSR, Moscow, 1957, 247 pp., 3200 copies

ORIG.AGENCY: Akademiya nauk SSSR. Energeticheskiy institut im. G.M. Krzhyzhanovskogo. Geliotekhnicheskaya laboratoriya.

EDITORS: Ed. in Chief: Baum, V. A., Prof., Doctor of Tech. Sciences; Ed. of Publishing House: Bogoslovskiy, B. B.; Tech. Ed.: Prusakova, T. A.

PURPOSE: The book is the first attempt to assemble data gathered from laboratory experiments on heliotechnique.

Card 1/8

APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R001859630008-1"

"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R001859630008-1

Call Nr: AF 1133946

Use of Solar Energy (Cont.)

COVERAGE: The work is a collection of articles on various subjects dealing with solar energy. The book deals with Russian contributions. For bibliographic references and personalities see the Table of Contents.

TABLE OF CONTENTS

Foreword: The Heliotechnical Laboratory of the Institute of Power Engineering im. G. M. Krzhyzhanovskiy, Academy of Sciences, has for many years been conducting research on the use of solar energy, the design of new solar installations, and the most practical uses for solar energy in many regions. The foreword, which gives a running commentary on each article published in the book, points out that, with the exception of Veynberg, V. B. and Yaroslavtsev, I. P.; all authors are staff members of the Heliotechnical Laboratory of the Institute of Power Engineering. 3

Card 2/8

APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R001859630008-1"

"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R001859630008-1

Call Nr: AF 1133946

Use of Solar Energy (Cont.)

Baum, V. A. Possible Utilization of Solar Energy 7

There are 22 references, 10 of which are USSR, 9 English, 1 French, 1 Italian, 1 Indian; 2 tables and 4 photographs are included.

Yaroslavtsev, I. N. Variations in Total Heat from Sun and Sky Radiations and the Time Distribution of Solar Radiation Energy for Tashkent. 24

All 5 references are USSR; 10 tables are included.

Veynberg, V. B. The Coefficient of Intercepting Radiation Reflected From Parabolo-cylindrical and Paraboloid Mirrors by a Receiver. 32

There are no references; 6 figures are included.

Card 3/8

APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R001859630008-1"

"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R001859630008-1

Call Nr: AF 1133946

Use of Solar Energy (Cont.)

Veynberg, V. B. Spectral Characteristics of Sun Radiation Receivers. 41

There are 14 references, 11 of which are USSR, 2 English, and 1 a translation from English; 3 figures and 2 tables are included. The personalities mentioned are Lazarev, D.N., and Kuznetsov, N. P.

Garf, B. A., Borozdina, M. S., Rekant, N. B. Study of Reflecting Surfaces of Solar Installations 49

Of a total of 6 references, 4 are USSR, 1 English, 1 Japanese. There are 6 figures and 8 tables. The personalities mentioned are: Savinov, Yanishevskiy, and Gurevich; the facilities referred to are: the Chemical Laboratory of the Plant im. Yablochkov, the Glass Works of the Konstantinovskiy Plant, the Glass Manufacturing Plant in Proletarsk (Voroshilovgradskaya o.), the Glass Works in Tallinn (Estonskaya SSR), and the Leningrad Polytechnic Institute.

Garf, B. A. Rotation Mechanisms of Mobile Solar Installations 62

There are no references; 26 figures are included.

Card 4/8

APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R001859630008-1"

"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R001859630008-1

Call Nr: AF 1133946

Use of Solar Energy (Cont.)

Aparisi, R. R., Baum, V. A., Garf, B. A. Large-Capacity Solar Installations 85

There are 2 USSR references and 9 figures

Markov, G. I. Technological Characteristics in the Construction of Ferro-concrete Paraboloid Mirrored Reflectors for Helio Installations and Some Indicators of Their Work 99

The personalities mentioned are: Molero, F., Maksutov, D.D., Poyarkov, S. G., and Rekant, N. B. There are no references; 10 figures are included.

Kozlov, B. K., Bogdanov, F. F., Kolos, Ya.G. and Markov, G. I. Thermotechnical Studies of a Solar Paraboloid Installation for Steam Production. 110

There are no references; 6 figures are included.

Card 5/8

APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R001859630008-1"

"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R001859630008-1

Use of Solar Energy (Cont.) Call Nr: AF 1133946

Brdlik, P. M. Testing a Solar Refrigerator 118

The All-Union Scientific Research Institute of the Refrigerating Industry is mentioned. There are no references; 2 figures are included.

Shchegolev, D. M. Heating Buildings by Means of Solar Energy 124

Of a total of 10 references, 4 are USSR, 6 English.

Brdlik, P. M. Testing and Rating Solar Distillers 136

Of a total of 8 references, 5 are USSR, 2 English, 1 German; 10 figures and 3 tables are included.

Aparisi, R. R. Experimental Installation Generating High Temperatures 151

Of a total of 6 references, 1 is USSR, 2 are French, 1 English, 1 a translation from English, 1 a translation from German, 14 figures are included.

Card 6/8

APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R001859630008-1"

"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R001859630008-1

Call Nr: AF 1133946

Use of Solar Energy (Cont.)

Garf, B. A. Small Solar Cooking Installation 163

There are no references; 6 figures are included.

Garf, B. A. and Khuntsariya, R. K. Parabolo-cylindrical Water-Boiling Installation of 40-Liter-per-Hour Capacity 172

There are no references; 2 figures are included.

Petukhov, B. V. Method of Rating Solar Water Heaters 177

Of a total of 10 references, 9 are USSR; 1 a translation from English; 23 figures are included.

Markov, G. I. and Rekant, N. B. Testing Solar Water Heaters in Tashkent in 1952 and 1953 202

There are 2 USSR references; 10 figures are included.

Card 7/8

APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R001859630008-1"

"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R001859630008-1

Call Nr: AF 113946

Use of Solar Energy (Cont.)

Markov, G. I. Coefficient of Darkening of Direct Solar Radiation by the Glass Cover of a Helio Receiver and the Quantity of Direct Solar Radiation Falling on the Receiver 210

All 4 references are USSR, 3 figures are included.

Poyarkov, S. G. Technical and Economic Indicators of Solar Installations 214

There are no references; 11 tables are included.

Ismailova, A. A. Possibilities of Utilizing Solar Energy for Fruit and Vegetable Drying.

All 5 references are USSR; 12 figures are included.

Card 8/8

APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R001859630008-1"

"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R001859630008-1

VEYNBERG, V.B.

VEYNBERG, V.B.

Coefficient of recovery by a radiation collector of reflection from parabolic-cylindrical and a paraboloid mirrors. Ispol'. soln.energ. no.1:32-40 '57. (MIRA 10:11)

(Solar radiation)

APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R001859630008-1"

"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R001859630008-1

VEYNBERG, V.B.

Spectral characteristics of solar radiation collectors. Ispol'. soln.energ. no.1:41-48 '57. (MIRA 10:11)
(Solar energy)

APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R001859630008-1"

"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R001859630008-1

VEYNBERG, V.B.

Effect of astigmatism and chromatism of optical systems on the resolving power of the eye during observations through these systems. Probl.fiziol.opt. 12:327-330 '58 (MIRA 11:6)

(ASTIGMATISM)
(VISION)
(OPTICAL INSTRUMENTS)

APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R001859630008-1"

"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R001859630008-1

BOGATYREVA, V.V.; VEYNBERG, V.B.; MAL'TSEV, Yu.V.; MEYNGARD, P.N.

Doublet focal mirror-lens monochromators. Opt.-mekh.prom. 25 no.5:16 My '58. (MIRA 11:9)

(Monochromators)

APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R001859630008-1"

"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R001859630008-1

WEYNBERG, V.B.; MAL'TSEV, Yu.V.

Mirror-lens condensers of large aperture. Opt.-mekh.prom. 25 no.6:19 Je '58. (MIRA 11:10)
(Optical instruments)

APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R001859630008-1"

"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R001859630008-1

VEYNBERG, V.D

7(6), 24(4) SOV/20-121-4-17/54

AUTHORS: ~~Veynberg, B.V.,~~ Dul'neva, N. M., Meyngard, P. N., Yakovenko, V. L.

TITLE: A Polar Spectrohydronephelometer (Polyarnyy spektrogidronefelometr)

PERIODICAL: Doklady Akademii nauk SSSR, 1958, Vol 121, Nr 4, pp 634-636 (USSR)

ABSTRACT: This paper gives a short description of a polar spectrohydronephelometer which was designed in 1956 and of some results of the measurements by means of this apparatus. The polar hydronephelometer - an apparatus for transparency measurements - consists of a vessel filled with the water to be investigated. The objectives of the condenser and of a photometric device are immersed in this water. The luminosity of the ground glass of the photometer may be changed by 10^6 times by removal or turning of the measuring lamp and by introduction of a neutral light filter. The condenser sends a narrow cone of light into the water. If the decrease in light intensity is measured in a turbid water, the light of the condenser is directed straight into the objective of the photo-

Card 1/3

APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R001859630008-1"

"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R001859630008-1

meter. The intensity of the scattered light is measured under various angles φ with respect to the beam of the condenser. By some measurements of this kind the indicatrix and the scattering index σ can be measured. The absorption index k may be deduced from the measured values of the index ε of the decrease of the light intensity and of σ. The measurements in the various parts of the spectrum are carried out by means of color filters. In order to determine the degree of the depolarization of light by water, the condenser was furnished with a polarizer and the photometric apparatus with an analyzer. The apparatus discussed in this paper makes it possible to investigate the properties of sea water and river water the extinction coefficient ε of which lies within the interval 0,1 - 6 m^{-1}. The indicatrices may be measured for any angle between 0,5° and 145° and for 180° (backward scattering). According to many measurements, the properties of the investigated sea water vary considerably near the shore. The indicatrices of the scattering of natural waters are considerably elongated. The intensity of the scattered light has a minimum at scattering angles of $\sim 120^{\circ}$. For other regions of the sea, the shape of the scattering indicatrix depends only

APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R001859630008-1"

"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R001859630008-1

A Polar Spectrohydronephelometer SOV/20-121-4-17/54

slightly on the transparency of the water. The light which is scattered by the water is depolarized most at angles of 90 - 120°. The degree of the depolarization of light by water depends in a high degree on the initial orientation of its polarization plane. There are 4 figures and 2 references, 2 of which are Soviet.

PRESENTED: March 3, 1958, by V. V. Shuleykin, Academician

SUBMITTED: March 8, 1958

Card 3/3

APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R001859630008-1"