it in other properties. The soft SKN rubbers were tested under industrial conditions used in commercial articles at the rubber article plants. The authors conclude that vulcanizates from soft SKN rubbers with a Defoe hardness of 700 - 1,000g compared to vulcanizates from mass-produced rubbers are characterized by a lowered rate of vulcanization, somewhat lowered values of tear resistance and moduli. The vulcanizates of the soft SKN-18 rubber have also a lower frost resistance coefficient and elasticity. All other properties are almost equivalent. By increasing the sulfur content or the accelerators, an increase in the rate of vulcanization is achieved for mixtures of soft SKN rubbers, and in improvement in the resistance properties of the vulcanizates based on them. Due to the use of soft SKN rubbers in the production of rubber articles the cumbersome and energy-consuming stage of mechanical mastication is eliminated and the output of the mixing rollers is increased. There are 3 graphs and 5 tables.

ASSOCIATION: Nauchno-issledovatel'skiy institut rezinovoy promyshlennosti (Scientific Research Institute of the Rubber Industry)

LEPETOV, Vasiliy Aleksandrovich; ESMAN, P.I., red.; GRIVA, Z.I., red.

[Engineering rubber goods] Rezinovye tekhnicheskie izdeliia. Izd.2., perer. i dop. Moskva, Khimiia, 1965. 471 p. (MIRA 18:6)

MIKHAYLOV, G.G.; ESMAN, P.M.

Four-spindle head for milling key grooves. Stroi.i dor. mashinostr. 4 no.9:34 S '59. (MIRA 12:11)
(Milling machines--Attachments)

MIKHAYLOV, G.G.; ESMAN, P.M.

Reconditioning lathe chucks. Stan.i instr. 31 no.2:45 F '60. (MIRA 13:5)
(Chucks)

ESMAN, S. A.

"Theory and Methods of Calculation of the Electric Drive and the Constrol Scheme of "Flying Scissors". Official opponets: I. G. Kul'bachnyy, Professor, Doctor of Technical Sciences and Ye. V Nitusosv, Professor Doctor of Technical Sciences.

Dissertation for the Degree of Candidate of Technical Sciences, Defended at All-Union Correspondence Polytechnic Inst. 22 June 1950 (Elektrichestvo, 1950, pp 89-91, No. 5)

ESMAT ALLAM, aspirant

Potato and tomato late blight in the Egyptian region of the United Arab Republic. Zashch. rast. ot vred. i bol. 5 no.10: 47-48 O '60. (MIRA 16:1)

1. Moskovskaya ordena Lenina sel'skokhozyaystvennaya akademiya im. Timiryazeva, kafedra fitopatologii.

(Egypt—Tomatoes—Diseases and pests)
(Egypt—Potato rot)

CHERNYAK, A.S.; ESMONT, Ye.M.; SHEMETOVA, V.G.

Chemical fertilizers from phosphorites of the Lake Baikal region.
Izv.Sib.otd.AN SSSR no.1:101-104 '62. (MIRA 15:3)

1. Irkutskiy gosudarstvennyy nauchno-issledovatel'skiy institut redkikh metallov.
(Baikal Lake region—Phosphorites)
(Fertilizers and manures)

CHERNYAK, A.S.; ESMONT, Ye.M.

Chemical selection of columbite pyrochlore and apatite in the concentration of rare-earth sands. Zhur. prikl. khim. 38 no.1: 193-194 Ja '65. (MIRA 18:3)

ESO, Erno, Dr; Vas Megye Council "Markusovszky" Hospital (director: CSELKO, Laszlo, Dr), Department of Urological Surgery (chief physician: ZOLTAN, Tibor, Dr) (Vas M. T. -- Megyei Tanacs --, "Markusovszky" Korhaz, Urologiai Sebeszeti Osztaly).

"An Operated Case of Prostatic Myosarcoma."

Budapest, Magyar Sebeszet, Vol XIX, No 2, Apr 66, pages 141-143.

Abstract: [Author's Hungarian summary] A brief literature survey is followed by the description of a case of prostatic myosarcoma. Because of total retention of urine, transvesical prostatectomy was performed in combination with deep radiotherapy. The patient died 7 months after the operation. In addition to local recurrences the cause of death was severe tumor cachexia and apostematous nephritis caused by ureter compression. 4 Hungarian, 4 Western references.

1/1

8(6) SOV/112-59-5-8868

Translation from: Referativnyy zhurnal. Elektrotekhnika, 1959, Nr 5, p 64 (USSR)

AUTHOR: Esop, Kh. R.

TITLE: A Synchronous-Generator Excitation System Fed at a High Frequency and Using Magnetic Amplifiers and a Compounding System Is Analyzed

PERIODICAL: Izv. vyssh. uchebn. zavedeniy. Energetika, 1958, Nr 5, p 11-19

ABSTRACT: A scheme of synchronous-generator compounding with an electromagnetic correction is described; the scheme is distinguished by high-speed magnetic amplifiers supplied from a high-frequency generator. It is noted that even under steady-state conditions, examination of the process of parallel supply of the generator field winding from the compounding-circuit rectifiers and from the correction circuit is very difficult because the currents and voltages are nonsinusoidal; the latter fact is due to nonlinearity of rectifiers and magnetic amplifiers. Results of experimental investigations are reported, as are the oscillograms of transients accompanying the switching on of a

Card 1/2

A Synchronous-Generator Excitation System Fed at a High Frequency and Using . . .

squirrel-cage motor and a static inductive load. An approximate linearized differential equation for the above system was set up. An inference is drawn that the relative linearization error in analytical examination of the transients, as compared to experimental data, does not exceed 10-20% of the voltage deviation. An additional error due to the constant-load assumption can be evaluated as 1-3% of the rated voltage.

I.V.G.

ESOP, Kh. R.

Cand Tech Sci - (diss) "Analysis of a system of excitation of synchronous generators using high frequency supply and with the use of magnetic amplifiers and compounding equipment." Tallin, 1961. 11 pp; (Ministry of Higher and Secondary Specialist Education RSFSR, Leningrad Polytechnic Inst imeni M. I. Kalinin); 150 copies; free; (KL, 7-61 sup, 249)

[illegible], M.

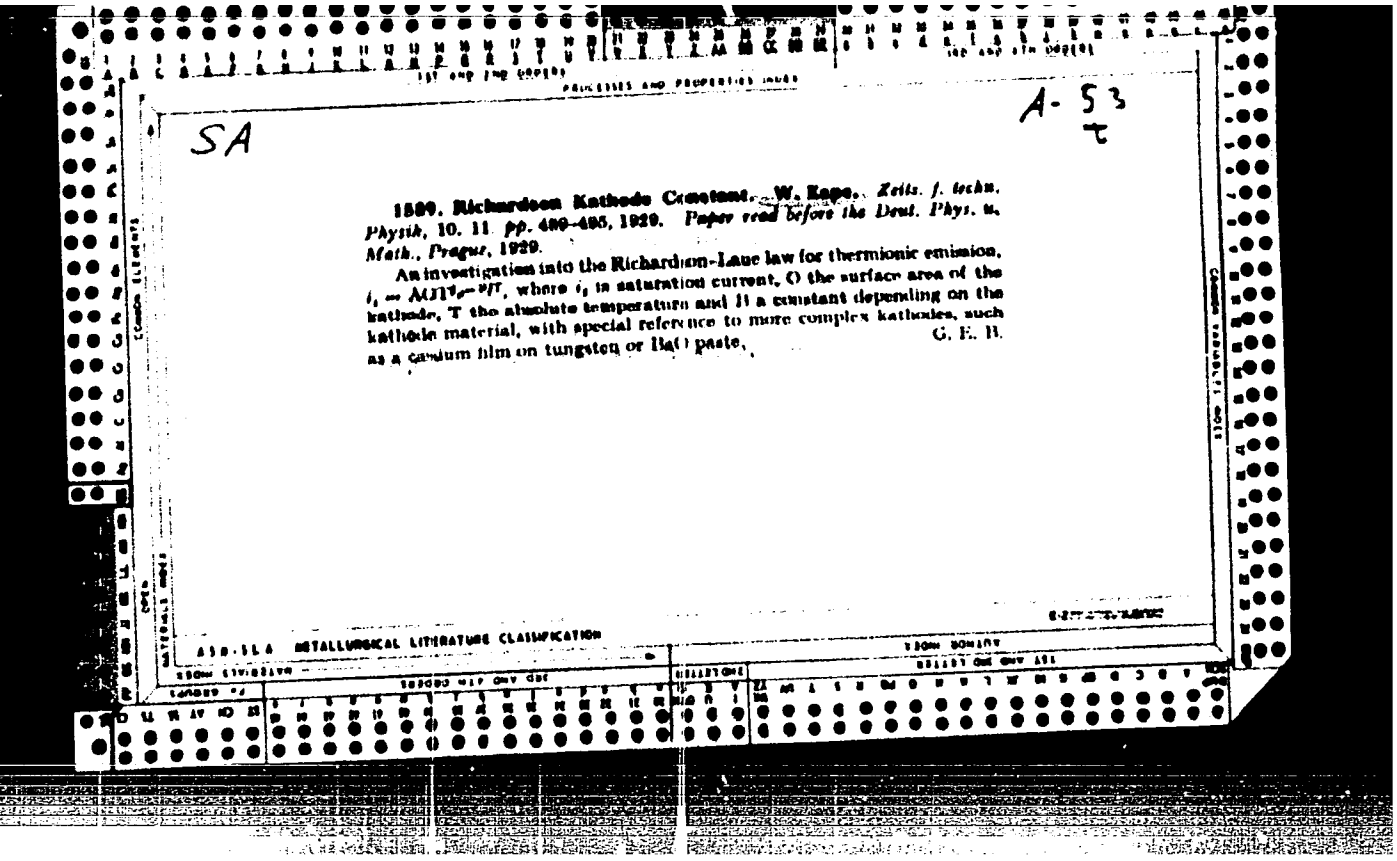
Synthetic zeolites and their use in [illegible] [illegible]. Ropa a uhlie 6 no.12:353-358 D '[illegible].

1. Chair of Radiotechnology of the [illegible] Higher School of Technology, Bratislava.

APPROVED FOR RELEASE: Thursday, July 27, 2000 CIA-RDP86-00513R00041222(

ESPE, W.

"Glass and ceramics in vacuum technology" by P.Calnot, G.Gallet. Reviewed by W.Espe Slaboproudy obzor 25 no.10:Suppl:Literatura 25 no.10:L77 '64.



SA

A-53
τ

1589. **Richardson Kathode Constant.** W. Kapp. *Zeits. f. techn. Physik*, 10. 11. pp. 489–495, 1929. *Paper read before the Deut. Phys. u. Math., Prague*, 1929.

An investigation into the Richardson-Laue law for thermionic emission, $i_s = A\Omega T^2 e^{-B/T}$, where i_s is saturation current, Ω the surface area of the kathode, T the absolute temperature and B a constant depending on the kathode material, with special reference to more complex kathodes, such as a caesium film on tungsten or BaO paste. G. E. B.

A59-11A METALLURGICAL LITERATURE CLASSIFICATION

S.A

Electron Tubes

621.385.2 : 537.543

854. Contribution to the problem of testing the materials used for anodes of vacuum diodes with oxide-coated cathodes. W. Farr and M. Lurtbak. *Slaboproud. Obz.*, 12, 26-34 (*Feb.*, 1951) *In Czech.*

A mathematical analysis is given of anode electron emission in diodes with oxide-coated cathodes and methods of measuring it are described. The theoretically obtained results are confirmed by experiment. On the basis of the results obtained the methods of reducing reverse current in such valves are considered. Numerical results and graphs are given. [illegible]

ESPE, W.

621.3 : 666.1.037.5

3059. Copper as a material in vacuum technology. II. Copper-to-glass seals. W. Espe. *Metallwirtschaft Metallwissenschaft Metalltechnik*, 14, No. 9, 393-403 (1935). In German.

Continuation of the previous paper [*Metallwirtschaft Metallwissenschaft Metalltechnik*, 14, No. 7-8, 317-53 (1935)]. Reviews the methods of preparing the vacuum-tight seals, chiefly from the point of view of the manufacture of transmitting valves. The copper used in seals is "UHCC," free from Pb and hardening admixtures or impurities with high vapour pressures. The following types of copper-glass joins are normally used: (1) seals with a very thin Cu wire or with a Cu-jacketed Fe-Ni wire; (2) elastic seals with thin-walled tapered copper rings; (3) disk seals, in which two glass tubes are joined to a copper disk of ~0·1 mm thickness. Prior to sealing, the metal surface is oxidized and borax-coated or enamelled. After sealing, the metal is subjected to a heat treatment which removes the stresses and its surface is deoxidized and cleaned by immersion in acid baths. The two articles contain 16 references.

E. S. [illegible]

ESPE, W.

669.294 : 621.385

816. Tantalum, its production, properties and application in the production of valves. W. ESPE. *Slaboproudý Obzor*, 14, 213–23 (*May*, 1953) *In Czech.*
A survey with 68 references.

Electrical Engineering
Abst.
Section B
Mar. 1954
Mechanical and Civil
Engineering Technology

ESPE, W.; POKORNY, V. - Vol. 14, no. 4, Apr. 1953. SLABOPROUDY OBZOR

New trends in the design of transmitting tubes. p. 178.

SO: Monthly list of East European Accessions, (EEAL), LC, Vol. 4, No. 9, Sept. 1955 Uncl.

ESPE,

1940. Carbon as a material in vacuum technology. W. Espe. *Slaboproudý Obzor*, 14, *No:* 12, 531-47 (1953). In Czech.

An account of electrical graphite, its production, properties and application; porous non-graphited carbon, production and application; colloidal graphite and suspensions, production and technology; carbon films, their formation from gaseous hydrocarbons and applications. Bibliography of 78 items. A.

ESPE, W.

Compound metals in vacuum techniques; clad metals and impregnated metals. (To be contd.) p. 39.

SLABORPROUDY OBZOR. Praha. Vol. 15, no. 1, Jan, 1954.

SOURCE: East European Accessions List (EEAL), LC, Vol. 5, no. 3, March 1956.

ESPE, W.

Hix, P. Vapor pressures and evaporation rates of materials for electronics, especially metals. (Supplement) p. P15.
SLABOPROUDY OBZOR, Prague, Vol. 15, no. 3, Mar. 1954.

SO: Monthly List of East European Accessions, (EEAL), LC, Vol. 5, No. 6 June 1956, Uncl.

Espe, Werner

Czechoslovakia/Electronics - Vacuum Technique, H-9

Abst Journal: Referat Zhur - Fizika, No 12, 1956, 35228

Author: Espe, Werner

Institution: None

Title: Methods and Techniques of Degassing Metals

Original Periodical: Slaboproudy obzor, 1954, 15, No 6, 282-293; Czech; Russian, French, German, and English resumés

Abstract: Quantitative data are given on the absorption of various gases by metals. Description is given of the known methods for degassing the untreated metal by melting, and degassing parts and systems of electrodes of vacuum tubes by heating in vacuum or in hydrogen (in special ovens, or by high frequency heating), or by electron bombardment. Bibliography, 66 titles. For the start of the article see Referat Zhur - Khim, 1955, 22055.

Card 1/1

ESPE, W.

2

CZECH

621.78 : 621.385 : 533.5

3971. Surface treatment of metals in vacuum technology. W. Espe. *Slaboproudý Obzor*, 15, No. 9, 443–7; No. 10, 493–97 (1954) In Czech.

A very comprehensive review covering washing; pickling; forming the surface; sand-blasting; polishing; plating; sublimation of metal coating on to metal base; diffusion of one metal into the surface of a second; oxidation; carburizing; coating with carbon black; deposition of surface coating through thermal dissociation of halogen compounds; powdered metal coating; marking of metal parts. An international bibliography of 68 items is included. A.

Espe, W.

621.327.3

2791. Luminescent materials for low-pressure mercury discharge lamps. W. Espe. *Elektrotech. Obzor*, 43, *No.* 4, 169–77 (1954) in Czech.

The relative spectral distribution of low- and high-pressure mercury lamps and the energy distributions inside and outside low-pressure lamps are discussed to clarify the requirements for coating materials. The conventional luminescent materials, the production of which is described, are known as "mixture luminophores" and the optical characteristics of the mixtures used for the various effects and commercially known as "daylight," "natural," "warm white," etc., shades are compared with the mixtures producing them. The recent use of halogen phosphates of alkaline earth metals is considered. Coating processes are described and technical data on the performance of many types of modern l.p. fluorescent lamps are tabulated. A fairly representative international bibliography of 42 items is added.

B. F. KRAUS

Espe, Werner

2816* Welding in the Vacuum Industry. **Zváranie vo vákuovej technike.** (Slovak.) Werner Espe. *Zváranie*, v. 4, no. 7, July 1955, p. 198-207.

MG Electric-resistance, and cold-, arc-, and flame welding methods used in the construction of high-vacuum and gas-filled electron tubes. Conditions demand the use of gerat amounts of H and rare gases and eliminates use of fluxes. Photographs, tables, graph, diagrams. 50 ref.

ESPE, W. Czechoslovakia

(Prague and Bratislava)

Ueber elektrische Widerstandsschweissung von Glas in der Vakuumtechnik

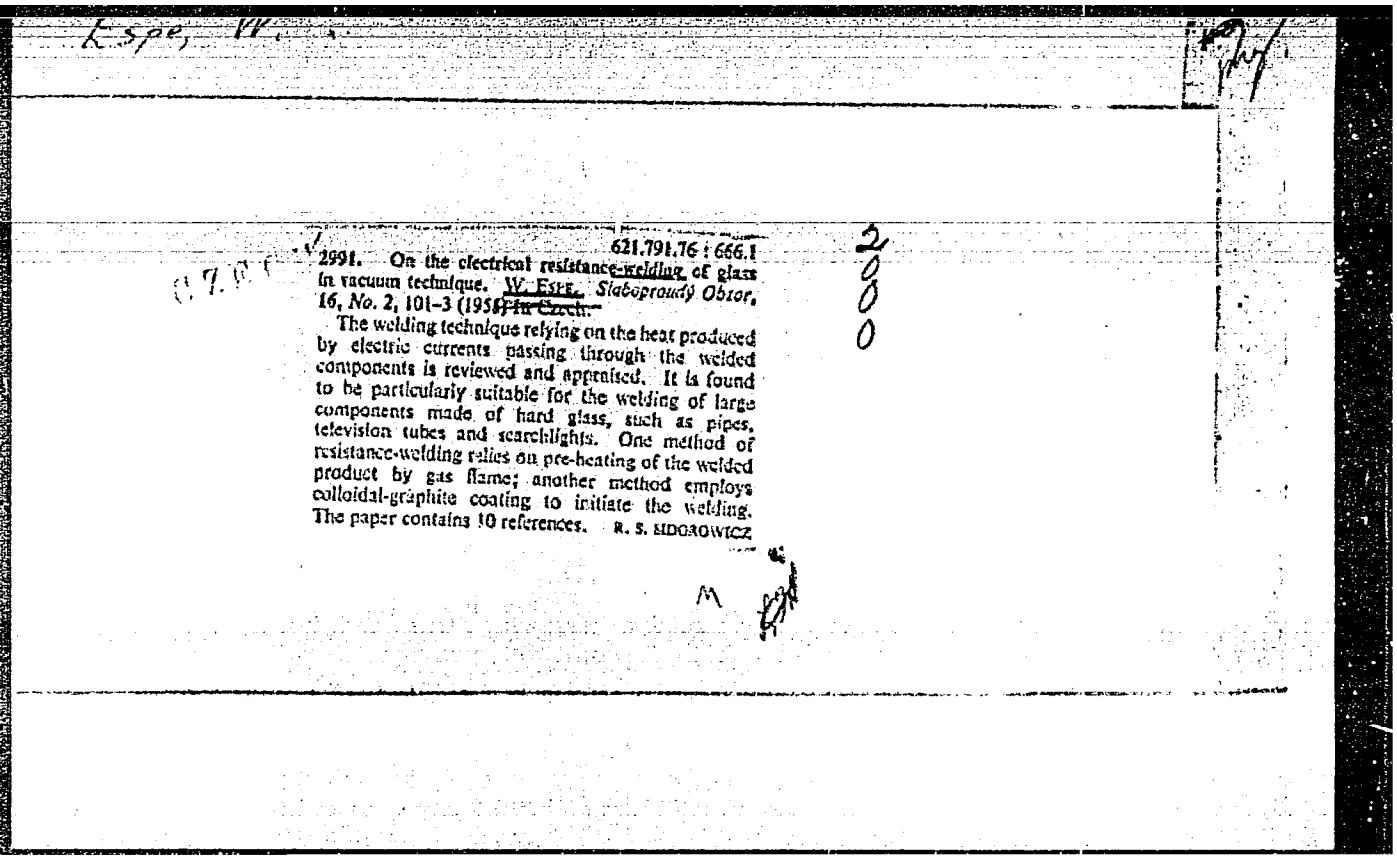
SO: Nachrichtentechnik, #12, December 1955, Unclassified.

[redacted]

[redacted], M.

Technology and application of mercury in vacuum technology. p. 27.
SLABOPROUDY OBZOR, Praha, Vol. 16, no. 1, Jan 1955.

SO: Monthly List of East European Accessions, (EEAL), LC, Vol. 4, no. 10, Oct. 1955, Uncl.



Espe, W.

621.791.76 : 666.1

2991. On the electrical resistance-welding of glass in vacuum technique. W. ESPE. *Slaboproudý Obzor*, 16, No. 2, 101–3 (1955) [In Czech.]

The welding technique relying on the heat produced by electric currents passing through the welded components is reviewed and appraised. It is found to be particularly suitable for the welding of large components made of hard glass, such as pipes, television tubes and searchlights. One method of resistance-welding relies on pre-heating of the welded product by gas flame; another method employs colloidal-graphite coating to initiate the welding. The paper contains 10 references. R. S. HIDGKIEWICZ

ESPE, W.

CZECH

661.1.037.5

1983. Compressed glass-to-metal seals. H. ADAM, W. ESPE AND E. SCHWARZ-BERGKAMPF. *Slaboproudý Obzor*, 16, *No.* 4, 208–15 (1955) In Czech.

Translation of a paper from *Glas- und Hochvakuum-Technik*, No. 7, 1953, supplemented by W. Espe. A compressed seal consists of a glass disk embedded in and mechanically stressed by a length of metal tube; metal conductors, thermally matched with the glass, may be sealed in the disk. Design of a seal is based principally on its current-carrying capacity and maximum operating voltages. Distribution of stresses in the seal is analysed and its preparation is described in detail. The seals can withstand working temperatures of 250°c, but are subject to failure at sudden local changes of temperature. The paper is illustrated by a substantial number of drawings, photographs and curves, and contains 16 references. B. S. SIDOROWICZ

4

2

ESPE, W.

The most important glasses for vacuum technology and instruments in Czechoslovakia and the German Democratic Republic. p. 430.
SLABOPROUDY OBZOR. (Ministerstvo strojirenstvi a ministerstvo spoju)
Praha. Vol. 16, no. 8, Aug. 1955.

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

ESPE, W.

W. ESPE (Prague and Bratislava), "Technologie und Verwendung des Quecksilbers in der Vakuumtechnik," Nachrichtentechnik, Vol. 6, No. 4, Berlin, April 1956, Unclassified.

(Rough translation of title: Technology and Use of Quicksilver in Vacuum Engineering)

Espe, W

W. Espe (Prague and Bratislava), "Kupfer als Werkstoff der Hochvakuumtechnik; Teil II: Kupfer-Glas-Verschmelzungen," Nachrichtentechnik (Berlin), 6/9, September 1956, p. 401 ff.

ESPE, W.

The production and application of shaped parts made of sintered glass in vacuum technology. p. 193. (Strojnoelektrotechnicky Casopis. Pratislava. Vol. 7, no. 4, 1956.)

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

ESPE, W.

A new lightning arrester. p. 80. (Strojnoelektrotechnicky Casopis, Vol. 8, No. 2, 1957, Bratislava, Czechoslovakia)

SO: Monthly List of East European Accessions (EEAL) LC, Vol. 6, No. 8, Aug 1957. Uncl.

ESPE, WERNER

CZECHOSLOVAKIA/Chemical Technology. Chemical Products and Their Application. Ceramics. Glass. Binders. Concrete. H-13

Abs Jour: Referat Zhur-Khimiya, No 5, 1958, 15283.

Author : Espe Werner
Inst :
Title : Quartz Glass, Fused Quartz Sand and Glass Similar to Quartz Glass, as Materials in High-Vacuum Technique.

Orig Pub: Slaboproudy obzor, 1957, 18, No 4, 266-280.

Abstract A review of production and further treatment methods, physical and chemical properties, and also of procedures of utilizing quartz glass. fused quartz sand and of glasses similar to quartz glass, in the technique of high-vacuum. Bibliography 63 references.

Card : 1/1

CZECHOSLOVAKIA/Chemical Technology. Chemical Products and Their Application. Ceramics. Glass. Binding Materials. Concrete. H-13

Abs Jour: Ref Zhur-Khim., No 2, 1959, 5494.

Author : Espe, Werner.
Inst :
Title : On Neutron Penetrance of Industrial Glasses.

Orig Pub: Strojnoelektrotechn. casop., 1958, 9, No 3, 168-171.

Abstract: Analyzing the coefficient of specific absorption of neutrons (Ns) by various oxides taking part in the composition of glass (G), the author draws the conclusion that ordinary industrial Gs are characterized by a great neutron penetrance. On the contrary, G containing oxides of Cd, B, Gd and Eu, absorbs neutrons very efficiently. Indium oxide possesses an exclusively

Card : 1/2

CZECHOSLOVAKIA/Chemical Technology. Chemical Products and Their Application. Ceramics. Glass. Binding Materials. Concrete. H-13

Abs Jour: Ref Zhur-Khim., No 2, 1959, 5494.

great capacity of selective absorption of neutrons of an energy of 1.4 electron-volt. Recipes for, and properties of, some Gs designed for protection from neutrons are presented. Bibliography with 3 titles. - L. Sedov.

Card : 2/2

CZECHOSLOVAKIA / Chemical Technology. Chemical Products H
and Their Applications. Glass.

Abs Jour: Ref Zhur-Khimiya, 1959, No 4, 12561.

Author : Espe, Warner.
Inst : ~~Not given.~~
Title : On the Gas Permeability of Industrial Glass.

Orig Pub: Strojnoelektrotechn. casop., 1958, 9, No 4, 240-246.

Abstract: It is remarked that in an "ultra-vacuum" (residual pressure 10^{-8}—10^{-12} mm mercury column), industrial glass (G) becomes gas permeable to a certain degree. This permeability is very low for all gases, excluding helium, which, especially during high temperatures, passes rapidly through the glass. The diffusion rate of the gases increases with a decrease in the size of the gas molecules and with an increase in the content of oxides of silicon, boron, and

Card 1/2

CZECHOSLOVAKIA / Chemical Technology. Chemical Products H
and Their Applications. Glass.

Abs Jour: Ref Zhur-Khimiya, 1959, No 4, 12561.

Abstract: phosphorus in the composition of the industrial glass. Boron-silicate G of the "pyrex" types possesses the greatest permeability for gases, and, in particular, quartz G. The gas permeability of G increases strongly with increased temperature and is found in linear dependence on the size, and in inverse relation to absolute temperature. Bib. 10 titles. -- L. Sedov.

Card 2/2

H-9

CZECHOSLOVAKIA/Electronics - Vacuum Techniques

Abs Jour : Ref Zhur - Fizika, No 4, 1959, No 8778

Author : Espe Werner
Inst : -
Title : Mica as a Material for Vacuum Technology

Orig Pub : Slaboproudy obzor, 1958, 19, No 6, 389-397

Abstract : A survey is given of the properties of mica as a vacuum material. The physical and chemical properties, methods of processing and of degassing, and surface coating of mica in vacuum technology are all considered.

Card : 1/1

CZECHOSLOVAKIA/Electronics - Vacuum Techniques H-9

Abs Jour : Ref Zhur - Fizika, No 4, 1959, No 8779

Author : Espe Werner
Inst : Slovak College for Technology in Bratislava, Czechoslovakia
Title : Use of Mica in Vacuum Technology

Ori. Pub : Slaboproudy obzor, 1958, 19, No 7, 458-464

Abstract : A systematic survey is given of the application of mica as a material in high vacuum technology. The following problems are considered: deposits, mining, and chemical composition of mica; treatment, physical and chemical properties, degassing, surface treatment, fusing of mica to glass or metal; and several examples of application of mica in vacuum technology. The author considers briefly the manufacture of synthetic mica and its properties. Bibliography, 77 titles. -- Author's resume

Card : 1/1

ESPE, W.

Z/039/60/021/03/008/028
E140/E135

AUTHORS: Werner Espe and Arno Kuhn

TITLE: Gas Filling for Ionisation Detectors, Especially Ionisation Chambers and Proportional Counters

PERIODICAL: Slaboproudý Obzor, 1960, Vol 21, Nr 3, pp 156-162

ABSTRACT: Systematic survey of the gases and optimum mixtures of gases and vapours used for filling ionisation detectors. After a short general introduction the gaseous fillings for various kinds of ionisation chambers and proportional counters are dealt with in detail as well as the influence of the filling on the qualities of the detectors. Particular attention is paid to the choice of gaseous filling in accordance with the kind of radiation to be detected. There are 10 figures, 4 tables and 18 references, of which 10 are German, 8 English.

Card 1/1

ASSOCIATION: Slovenská vysoká škola technická, Bratislava (Slovak Technical University, Bratislava) (W. Espe); Spolek pro chemickou a hutní výrobu n.p., Ústí n. L. (Association for Chemical and Metallurgical Production, Ústí n L.) (A. Kuhn).

SUBMITTED: August 25, 1959

ESPE, Werner; KUHN, Arno

Some technological problems of Geiger-Muller tubes and spark counters. Slaboproudy obzor 21 no.5:288-299 My '60. (EEAI 9:8)

1. Slovenska vysoka skola technicka, Bratislava (for Espe); 2. Spolek pro chemickou a hutni vyrobu, Usti nad Labem (for Kuhn) (Geiger-Muller counters)

ESPE, W.

Rhenium; production, properties and use in high vacuum engineering. El tech cas 14 no.9:560-571'63.

ESPE, W.

"Scientific foundations of vacuum technique" by Saul Dushman.
Reviewed by W.Espe. Tel tech cas 14 no.9:581-582 '63.

ESPE, W.

"Glossary of terms used in vacuum technology." Reviewed by W. Espe. Slaboproudy obzor:Suppl.:Literatura 24 no.5:L37 '63.

ESPE, W.

"Introduction to vacuum technology" by S.Buch. Reviewed by W.Espe.
Slaboproudy obzor 24 no.9:Suppl.:Literatura 24 no.9:L69, L71
'63.

ESPE, W.

"Practice of the high-vacuum engineering" by H.L.Eschbach. Reviewed by W.Espe. Slaboproudy obzor 24 no.10:Suppl.:Literatura 24 no.10:L79 '63.

L 30113-66 FCC GG/WW

ACC NR: AP6020591 SOURCE CODE: CZ/0028/65/000/006/0312/0319

30
B

AUTHOR: Espe, Werner (Bratislava)

ORG: none

21

TITLE: Some new matters of interest from vacuum technique

SOURCE: Pokroky matematiky fyziky a astronomie, no. 6, 1965, 312-319

TOPIC TAGS: vacuum technique, atmospheric pressure

ABSTRACT: The article presents a survey of important possibilities of the application of vacuum technique in industry, physics and chemistry, with indications of the required vacuum, and a table and a diagram showing the air pressure in near, outer and interplanetary space as a function of height above the Earth's surface. The author thanks Engineer K. Merinsky, Candidate of Sciences for helpful discussions and compiling the survey. Orig. art. has: 5 tables. [JPRS]

SUB CODE: 20, 08 / SUBM DATE: none

Card 1/1 ULR

L 35394-66 EWP(e)/ETI/EWP(t) IJP(c) JD/HW/WH

ACC NR: AP6026902 SOURCE CODE: CZ/0042/65/000/006/0348/0362

AUTHOR: Espe, Werner (Professor; Doctor); Hix, Peter (Engineer)

ORG: [Espe] Department of Radio Engineering, Slovak Institute of Technology, Bratislava (Katedra radiotechnologie SVST); [Hix] Tesla Roznov, National Enterprise, Vrsovice plant, Prague (Tesla Roznov, n.p., zavod Vrsovice)

TITLE: Contribution to the advantageous processing of FeNiCo alloys before and after their sealing to glass

SOURCE: Elektrotechnicky casopis, no. 6, 1965, 348-362

TOPIC TAGS: coaxial cable, glass to metal seal

ABSTRACT: The article discusses practical experience obtained in the designing and production of coaxial kovar-to-glass seals for bushings used in hf-transmission tubes, which led to good manufacturing results. The experience also is generally useful in kovar-to-glass seal production, in the manufacturing of thyratrons, for example. Many design drawings and photographs of elements given practical tests are included. This paper was presented by J. Slosiar. Orig. art. has: 5 figures and 3 tables. [Based on authors' Eng. abst.] [JPRS: 32,482]

SUB CODE: 13, 09 / SUBM DATE: 19Jan65 / ORIG REF: 006 / OTH REF: 007

Card 1/1

L 31784-66 EWP(t)/ETI IJP(c) JD

ACC NR: AP6021644 SOURCE CODE: CZ/0030/65/000/010/0305/0310

AUTHOR: Espo, Worner (Professor; Doctor), Bratislava

51
B

ORG: none

TITLE: Problems of vacuum technique in the preparation of thin layers

SOURCE: Jemna mechanika a optika, no. 10, 1965, 305-310

TOPIC TAGS: vacuum technique, metal film, semiconducting film

ABSTRACT: The article presents a survey of modern methods of vacuum technique, a knowledge and mastery of which are necessary in the production of thin layers. Thirty references cited in this, the first part of the article, but not listed. Orig. art. has: 20 figures and 5 tables. [JPRS]

SUB CODE: 20 / SUBM DATE: 04Aug65

LS

Card 1/1 UDC: 621.52

L 31021-66 EWP(t)/ETI IJP(c) JD

ACC NR: AP6022987 SOURCE CODE: CZ/0030/65/000/011/0341/0348

AUTHOR: Espe, Werner (Professor; Doctor of philosophy; Bratislava) 76 B

ORG: none

TITLE: Problems of vacuum technique in the application of thin layers 14

SOURCE: Jemna mechanika a optika, no. 11, 1965, 341-348

TOPIC TAGS: vacuum technology, film cooling, electron bombardment, sealing device, semiconducting film

ABSTRACT: The article is the conclusion of an article in no. 10, 1965, of this journal. It deals with low-temperature cooling, design problems of sealing in equipment for the production of thin films, resistance heating, electron bombardment, the evaporating "brake" and methods of producing thin films without the use of vacuum. Orig. art. has: 31 figures and 5 tables. [JPRS]

SUB CODE: 20, 13 / SUBM DATE: 03Aug65 / ORIG REF: 001 / OTH REF: 079

Card 1/1 JC UDC: 621.52

L 21365-66 T/EWP(t) JD
ACC NR: AP6010922 SOURCE CODE: CZ/0039/65/026/006/0335/0342

AUTHOR: Espe, Werner (Professor; Doctor)

ORG: Slovak Institute of Technology, Bratislava (Slovenska vysoka skola technicka)

TITLE: Materials for separable ultrahigh vacuum joints

SOURCE: Slaboproudy obzor, v. 26, no. 6, 1965, 335-342

TOPIC TAGS: ultrahigh vacuum, vacuum degassing, vacuum seal, vacuum chamber, metal

ABSTRACT: The article surveys suitable and reliable materials for separable all-metal joints which may be degassed easily and used for ultrahigh vacuum; methods of application are stated. Metals are discussed first, and then elastic materials withstanding higher temperatures are compared with them. Orig. art. has: 28 figures and 1 table. [JPRS]

SUB CODE: 11, 13 / SUBM DATE: 28Sep64 / ORIG REF: 002 / OTH REF: 034

Card 1/1 UDC: 621.52

ACC NR: AP6035528 SOURCE CODE: CZ/0039/66/027/010/0630/0640

AUTHOR: Espe, Werner; Hix, Peter; Kejhar, Jindrich

ORG: [Espe] Slovak Technical College, Bratislava (Slovenska vysoka skola technicka); [Hix; Kejhar] TESLA Roznov National Enterprise, Vrsovice Enterprise (TESLA Roznov n.p., zavod Vrsovice)

TITLE: Reliable vacuum-tight soldered ceramic-metal joints

SOURCE: Slaboproudy obzor, v. 27, no. 10, 1966, 630-640

TOPIC TAGS: ceramic to metal seal, ceramic product, thermionic tube, solder, vacuum tight solder, corundum

ABSTRACT: The article discusses the advantages and drawbacks of ceramics as materials in the manufacture of thermionic tubes, and presents theoretical considerations on the vacuum tightness of ceramic-to-metal seals. The material and design aspects in the manufacture of a transmitting tube with a reliable vacuum-tight soldered corundum-to-kovar seal are considered in detail. The use of locally manufactured materials in the mass production of ceramic pickup tubes is discussed. Orig. art. has: 18figures and 4 tables. [Based on authors' abstract]

Card 1/1 SUB CODE: 11/SUBM DATE: none/ORIG REF: 004/OTH REF: 027/ [KS]

ESPENHAN, Maria

MARCINIAK, Aleksandra; ESPENHAN, Maria

Significance of paper electrophoresis in clinical rheumatic diseases. Polskie arch. med. wewnetrz. 24 no.3a:383-392 1954.

1. Z I Kliniki Chorob Wewnetrznych Akademii Medycznej w Poznaniu Kierownik: prof. dr St.Kwasniewski.

(RHEUMATISM, blood in,
*globulin, electrophoresis)
(ELECTROPHORESIS,
*of serum globulin in rheum)
(SERUM GLOBULIN, in various diseases,
*rheum., electrophoresis)

ESPENHAN, M., MICHALKIEWICZ, W., ZYWICKA-TWAROWSKA, I.

Blood proteins in normal and diseased newborn infant. Pediat.polska 33 no.3:303-313 Mar 58

1. Z I Kliniki Poloznictwa i Chorob Kobiecych A.M. w Poznaniu. Kierownik: doc dr med. W Michalkiewicz. Adres: Poznan, ul. Polna 33, I Klin. Poloz. i Chor. Kobiecych A.M.

(BLOOD PROTEINS, determ.
in normal & dis. newborn inf. (Pol))
(INFANT, NEWBORN, dis.
blood proteins in (Pol))

ESPENHAN, Maria; MICHALKIEWOCZ, Witold

Some physico-chemical properties of proteins of the myometrium.
Ginek. pol. 34 no.2:193-197 '63.

1. Z I Kliniki Poloznictwa i Chorob Kobiecych AM w Poznaniu
Kierownik: prof. dr med. W. Michalkiewicz.
(MUSCLE PROTEINS) (UTERUS) (CHEMISTRY)

ESPEROV, P. N.

ESPEROV, P. N. -- "Material on the Problem of Intraabdominal Pressure in Humans." Kuybyshev State Medical Inst. Chair of Hospital Surgery. Kuybyshev, 1955. (Dissertation for the Degree of Candidate in Medical Sciences)

SO: Knizhnaya Letopis', No 1, 1956

Esperov, B.N.

ESPEROV, B.N.

Echinococcosis of the thoracic wall. Vop.neirokhir. 21 no.6:53-54 N-D '57. (MIRA 11:2)

1. Kafedra gospital'noy khirurgii Kuybyshevskogo meditsinskogo instituta.

(ECHINOCOCCOSIS, case reports
thoracic wall)
(THORAX, dis.
echinococcosis of thoracic wall)

ESPEROV, B.N.

ESPEROV, B.N., kand.med.nauk

Observations of malignant hypertension following surgery.
Sov.med. 21 no.11:98-100 N '57. (MIRA 11:3)

1. Iz kafedry gospital'noy khirurgii (zav.-prof. A.M.Aminev) Kuybyshevskogo meditsinskogo instituta (dir.-prof. T.I. Yeroshevskiy)
(HYPERTENSION, surg.
follow-up in malignant hypertension)

ESPEROV, B.N., kandidat meditsinskikh nauk

Pneumoperitoneum following surgery and its significance in the clinic [with summary in English]. Khirurgiia 33 no.3:48-51 Mr '57. (MLRA 10:6)

1. Iz kafedry gospital'noy khirurgii (zav. - prof. A.M.Aminev) Kyubyshevskogo meditsinskogo instituta (dir. - prof. T.I. Yeroshevskiy)

(PNEUMOPERITONEUM
postop., clin. significance (Rus))

ESPEROV, B.N., dotsent

Lumbrosacral radiculitis caused by herniation of the intervertebral disks and their surgical treatment. Vop.neirokhir. 25 no.3:24-28 My-Je '61. (MIRA 14:5)

1. Kafedra gospital'noy khirurgii Kuybyshevskogo meditsinskogo instituta.
(INTERVERTEBRAL DISK—DISEASES) (NERVES, SPINAL—DISEASES)

ESPEROV, B.N.

Clinical aspects and results of surgical treatment in intervertebral disk hernia. Zhur. nevr. i psikh. vol. 64 no.5:694-700 '64.
(MIRA 17:7)

1. Kafedra gospital'noy khirurgii (zaveduyushchiy - prof.A.M.Aminev) i kafedra nervnykh bolezney (zaveduyushchiy - prof.A.I.Zlatoverov) Kuybyshevskogo meditisnskogo instituta.

ESPEROV, B.N., dotsent (Kuybyshev, Polevaya ul., 3, kv.43)

Discography (nucleography) in hernias of lumbar intervertebral disks. Vest. khir. 92 no.3:79-82 Mr '64. (MIRA 17:12)

1. Iz gospital'noy khirurgicheskoy kliniki (zav. - prof. A.M.Aminev) i kafedry nervnykh bolezney (zav. - prof. A.I.Zlatoverov) Kuybyshevskogo meditsinskogo instituta.

81104
Z/012/60/000/01/002/015
E073/E535

15.2200

AUTHOR: Espig, H.

TITLE: On the Synthesis of Asbestos and of Some Other Minerals

PERIODICAL: Silikáty, 1960, No 1, pp 10-28 + 1 plate

ABSTRACT: In the Scientific Laboratory of the Electro-chemical Combine in Bitterfeld, East Germany, research has been carried out aimed at synthesizing long threads of asbestos suitable for spinning. Although the research is not completed, considerable progress has been achieved. They succeeded in producing water-free asbestos of the types Ca-Mg-asbestos, pure Mg-asbestos and sodium or fluorine containing crocidolite of lengths up to 5 mm which are suitable for special purposes since they are chemically and thermally more resistant than some natural types of asbestos, particularly fibrous serpentine. It was proved that the synthesis of asbestos does not pass through the gaseous phase but in a peculiar way it passes via drops of a silicate intermediate substance from which acicules

Card 1/3

81104

Z/012/60/000/01/002/015
E073/E535

On the Synthesis of Asbestos and of Some Other Minerals

and fibres form owing to excessively rapid crystallization in the case of high saturation. The author deals with the conditions under which compact crystals occur, acicules or fibres, i.e. with the problems of the crystal habitus. The author points out the dependence between the $MgO:SiO_2$ ratio and the greater or lesser purity of asbestos, i.e. the absence of accompanying minerals, as for instance talcum, tridymite, etc. Since so far the synthetic asbestos substance differs considerably from the natural asbestos, conditions were investigated for the manufacture of components from this synthetic asbestos. Furthermore, the production was studied of soft, pliable fibres and the loosening of the mass by combustible substances (coal dust and particularly peat dust) which is favourable from the point of view of fibre formation. Problems of the crucible material and apparatus problems were also
Card 2/3 investigated and the research program has been extended

81104

Z/012/60/000/01/002/015
E073/E535

On the Synthesis of Asbestos and of Some Other Minerals

to include synthesis of ferrous-asbestos, mica and turmaline. From the structural point of view it is interesting that, on several occasions, the asbestos was obtained as strip-like crystals, which indicates a transition from fibre silicates to layer silicates. There are 13 references, all of which are German.

ASSOCIATION: VEB, Elektrochemický kombinát Bitterfeld
(VEB, Electrochemical Combine, Bitterfeld, East Germany)

SUBMITTED: June 1, 1959

Card 3/3

ESRIG, E. dr.

DUTU, St., dr.; STUPCANU, C., dr.; ESRIG, E., dr.

Trypsin test in differential diagnosis of ventilatory insufficiency. Med. int., Bucur. 9 no.3:417-423 Mar 57.

1. Lucrare efectuata in Laboratorul de fiziologie al Institutului de ftiziologie.

(RESPIRATION
insuff., diag., trypsin test)
(TRYPSIN
test of resp. insuff.)

CARPINISAN, C.; SCUREI, Alex.; CORNEA,P.; ESRIG,E.

Contributions to the clinical study and therapy of pulmonary air cysts. Rumanian med.rev. 7 no.3:41-46 Jl-S'63

POENARU, Elena; ESRIG, Mira; LAZAR, M.; LASCO, N.; KRANZDORF, H.

Contribution to the study of tetanus toxoid adsorbed on a mineral support, with or without previous purification. I. Arch. roum.path. exp. microbiol. 23 no. 3:667-674 S '63.

1. Laboratoire du Tetanos (for Peonaru, Esrig, Lazar, Lasco). 2. Laboratoire pour la Purification des antigenes (for Kranzdorf). Travail de l'Institut "Dr. I. Cantacuzino.", Bucarest.

RUDNYY, N.M.; BOZZHENNIKOVA, N.P.; ESRIK, V.B.

Transient measurement of an electric resistance of $\frac{1}{1000 \times 10}$ ohms. Trudy VNIIM no.38:52-60 '59. (MIRA 13:4)
(Electric resistance--Measurement)

RUDNYY, N.M.; ESRIK, V.B.

Combined standard measure of electric resistance. Trudy VNIIM no.38:61-70 '59. (MIRA 13:4)
(Electric resistance--Measurement)

[redacted], F.

"Building Ceramics", P. 284, (MATERIALY BUDOWLANE, Vol. 9, No. 11, November 1954, Warsaw, Poland)

SO: Monthly List of East European Accessions (EEAL), LC, Vol. 4, No. 3, March 1955, Uncl.

GIMMEL'FARB, Ya. K.; ESSEL', A.Ye.; MASLOVCHUK, Ye.P.

Observations of phagocytic reaction of leukocytes to a suspension of Salmonella typhosa with added vaccinia virus. Zhur. Mikrobiol. epid. i immun. no.5:69-73 My '55. (MLRA 8:7)

1. Iz Uzhgorodskogo instituta epidemiologii, mikrobiologii i gigiyeny (dir. V.M. Meshchenko) i kafedry epidemiologii (zav. prof. Ya. K. Gimmelfarb) Odesskogo meditsinskogo instituta imeni N.I. Pirogova (dir. prof. I. Ya. Deyneka)

(PHAGOCYTOSIS,
phagocytic reaction of leukocytes to Salmonella typhosa suspension with added vaccinia virus)
(SALMONELLA TYPHOSA,
Phagocytic reaction of leukocytes to Salmonella typhosa suspension with added vaccinia virus)
(VACCINIA, virus,
Phatocytic reaction of leukocytes to Salmonella typhosa suspension with added vaccinia virus)
(VIRUSES,
Vaccinia, phagocytic reaction of leukocytes to Salmonella typhosa suspension with added vaccinia virus)

ESSEL', A. YE.

"Directed alteration of the toxigenic property of the diptheria bacillus in growing it on nutritive media with the addition of lysate of P. W.--8 culture.

Report submitted to the 13th All-Union Congress of Hygienists, Epidemiologists and Infectionists. 1959

ESSEL', A.Ye., starshiy nauchnyy sotrudnik, kand.biol.nauk; NOVOKROSHCHENOV, B.V., starshiy nauchnyy sotrudnik, kand.med.nauk, otv.red.; BLIZEYEV, V.I., kand.med.nauk, red.; KOZLOV, V.A., dotsent, red.; RASKIN, M.M., starshiy nauchnyy sotrudnik, kand.med.nauk, red.

[Problems in the biology of the causative agent of diphtheria] Voprosy biologii vozbuditelia difterii. Chita, 1959. 189 p. (Chita. Institut epidemiologii, mikrobiologii i gigieny. Nauchnye zapiski, no.5). (MIRA 15:1)

(CORYNEBACTERIUM DIPHTHERIAE)

ESSEL', A.Ye.

Nature of respiration in Corynebacterium diphtheriae. Zhur. mikrobiol.epid. i immun. 30 no.5:80-84 My '59. (MIRA 12:9)

1. Iz Chitinskogo instituta epidemiologii, mikrobiologii i gigiyeny.

(CORYNEBACTERIUM DIPHTHERIAE, metabolism, resp. (Rus))

ESSEL', A. Ye. Doc Biol Sci -- (diss) "Material on the biology of the causative agent of diphtheria." Moscow, 1960, 27 pp. (Acad Med Sci, USSR), 300 copies, (KL, 31-60, 141)

ESSEL', A.Ye.

Fifth scientific session of the Khabarovsk Institute of Epidemiology and Microbiology. Zhur.mikrobiol., epid.i immun. 33 no.4:160-161 Ap '62. (MIRA 15:10)
(EPIDEMIOLOGY--CONGRESSES) (MICROBIOLOGY--CONGRESSES)

ESSEL', Aleksandr Yefimovich; FRIDMAN, A.M., red.

[Indirect hemagglutination reaction] Reaktsiia nepriamoi gemaggliutinatsii. Leningrad, Meditsina, 1965. 50 p. (MIRA 18:5)

YERMAN, B. A.; ESSEL', A. Ye.; BRONITSKAYA, Ye. Yu.; SHUBINA, S. B.; MYASNIKOVA, A. T.

"Tsitofotometricheskoye opredeleniye soderzhaniya rnk v kletkakh ner-2, zarazhennykh rnk-soderzhashchim virusom."

report presented at Symp on Virus Diseases, Moscow, 6-9 Oct 64.

Institut virusnykh infektsiy, Sverdlovsk.

KURNOSOVA, N.A.; BONDARENKO, V.A.; RAKHMAN, E.Z.; YAVRUMOV, V.A.; KIRYUSHINA, L.A.; MANOLOVA, E.P.; ESSEL', A.Ye.; TARASOVA, M.A.; PIROGOVA, A.I.; PIROGOV, I.Ya.; AKOPYAN, R.A.; BABUNASHVILI, N.P.; PROTSENKO, O.A.; PUNSKAYA, I.G.; BURMISTROVA, O.G.; POGOREL'SKAYA, S.A.; D'YACHENKO, T.F.; TOPURIYA, I.I.; MATABELI, G.V.; GIGITASHVILI, M.S.; VACHNADZE, T.G.; MAZURIN, N.D.; NABIYEV, E.G.; BLOKHOV, V.P.

Abstracts. Zhur. mikrobiol., epid. i immun. 41 no.4:142-147 Ap '64. (MIRA 18:4)

1. Moskovskiy institut epidemiologii i mikrobiologii (for Kurnosova). 2. Faleshtskaya rayonnaya bol'nitsa Moldavskoy SSR i Vinnitskiy meditsinskiy institut imeni Pirogova (for Bondarenko). 3. Stavropol'skiy institut vaktsin i syvorotok (for Rakhman). 4. Kaluzhskiy oblastnoy otdel zdravookhraneniya (for Yavrumov, Kiryushina). 5. Donetskiy meditsinskiy institut (for Manolova). 6. Tbilisskaya rayonnaya imeni 26 komissaro sanitarno-epidemiologicheskaya stantsiya (for Akopyan, Babunashvili). 7. Kemerovskiy meditsinskiy institut (for Protsenko). 8. Turkmenskiy meditsinskiy institut (for Punskaya, Burmistrova). 9. Gor'kovskiy institut epidemiologii i mikrobiologii i Gor'kovskaya rayonnaya sanitarno-epidemiologicheskaya stantsiya (for Pogorel'skaya, D'yachenko). 10. Institut meditsinskoy parazitologii i tropicheskoy meditsiny imeni Virsaladze Ministerstva zdravookhraneniya Gruzinskoy SSR (for Topuriya, Matabeli, Gigitashvili, Vachnadze). 11. Kazanskiy institut usovershenstvovaniya vrachey (for Nabiyev).

FILIMONOV, L.N.; ESSEN, A.I.

Quantitative spectrochemical analysis of admixtures in binary brasses. Zav.lab.22 no.4:426-435 '56. (MLRA 9:7)

1.Institut "Gipretsvetmetobrabotka".
(Brass--Spectra)

ESSEN, A I

SOV/137-58-9-20309

Translation from: Referativnyy zhurnal, Metallurgiya, 1958, Nr 9, p 313 (USSR)

AUTHORS: Filimonov, L.N., Essen, A.I.

TITLE: Quantitative Spectrochemical Determination of Impurities in Binary Brasses (Kolichestvennoye spektrokhimicheskoye opredeleniye primesey v dvoynykh latunyakh)

PERIODICAL: Tr. Gos. n.-i. i proyektn. in-ta po obrabotke tsvetn. met., 1957, Nr 16, pp 127-148

ABSTRACT: Bibliographic entry. Ref. RZhMet, Nr 11, abstract 13147

1. Brass--Impurities 2. Brass--Spectrographic analysis 3. Chemical impurities--Determination

Card 1/1

ESSEN, A.I.

137-58-4-8569

Translation from: Referativnyy zhurnal, Metallurgiya, 1958, Nr 4, p 322 (USSR)

AUTHORS: Filimonov, L.N., Essen, A.I.

TITLE: Spectrochemical Determination of Lithium in Copper (Spektrokhimicheskoye opredeleniye litiya v medi)

PERIODICAL: Tr. Gos. n.-i. i proyektn. in-ta po obrabotke tsvetn. met., 1957, Nr 16, pp 149-156

ABSTRACT: The object of the work was an investigation of the possibility of identification (of Lithium? Transl. Ed.) by means of the 6707, 844, 3232.61, and 6103.642 lines under various regimes of globular arcs in the 0.0005-0.06% concentration interval. Eight Li-Cu alloys in all were prepared. The alloys were made by mixing titrated solutions of the necessary strength, evaporating them, annealing them at 600°C and pressing the briquets in a steel mold. The light source was a 1.5-5.8 amp dc arc fed from a stabilized source. The counterelectrode was a rod of pure Cu, 8 mm in diameter, brought to a truncated conical point, the radius of curvature of the apex being 1.5 mm. The arc length was held constant (3.5 mm) by means of a projection lens providing 25-fold enlargement on the screen. A Dietert

Card 1/2

137-58-4-8569

Spectrochemical Determination of Lithium in Copper

spectrograph with 7 angstrom/mm dispersion and a 60 micron aperture was employed. Lines of anneal were plotted for the plate and cathode and, in view of the high stability of the plate melt, graduated graphs of plate briquets weighing 0.5 g were drawn. The possibility of identifying 0.0005-0.008 concentrations of Li in Cu by means of the 6103.64 line was established. At higher concentrations it is desirable to dilute the pure Cu specimen by dissolving it and to employ the 3232.6 Li line and the melt at the anode.

1. Lithium--Determination 2. Copper-lithium alloys--Spectrographic analysis

A. F.

Card 2/2

Essen, A.I

AUTHORS: Filimonov, L.N., Essen, A.I., Zakharova, Z.A. 32-11-18/60

TITLE: The Determination of Admixtures in Titanium by Means of Spectral Analysis (Spektral'no-analiticheskoye opredeleniye primesey v titane)

PERIODICAL: Zavodskaya Laboratoriya, 1957, Vol. 23, Nr 11, pp.1313-1315 (USSR)

ABSTRACT: This paper investigates the problem of determining 12 different metal admixtures in the concentrations of 0.01-0.2% in technically pure titanium, from which various objects are manufactured (such as rods, tubes, blades, etc.). Though publications dealing with this subject were available [ref.1,2,3,4,5,6], an improved method for the spectro-analysis of titanium was recommended. A globule arc lamp was used as a light source. Such trouble as difficult meltability, low electric conductivity, and an inclination of spraying the titanium oxides in the arc lamp was dealt with by mixing the titanium oxides with other elements. In the present case titanium dioxide was mixed with copper dioxide and pressed into briquets (0.5 g). In the same manner as the corresponding standard gauged samples were prepared, and for copper, nickel, cobalt, iron, manganese, and magnesium the oxide powders were obtained by synthetical means, i.e. by dissolution of the pure elements in nitric acid and vaporisation, or, in the case of

Card 1/2

32-11-18/60

The Determination of Admixtures in Titanium by Means of Spectral Analysis

TiO_2, SiO_2, WO_3, Al_2O_3, Cr_2O_3, MoO_3, V_2O_5, Nb_2O_5 by mechanical mixing. The briquets produced were switched on as a cathode in the arc lamp on a graphite carrier. Exposure took place at the moment when the briquet was molten, the arc provided a uniform light on the basis of the drops of the molten sample. The spectrograph and a diffraction net supplied by the firm of Ditert were used. There are 1 figure, 1 table, and 13 references, 8 of which are Slavic.

ASSOCIATION: The "Giprotsvetmetobrabotka" Institute (Institute for Nonferrous Metals) (Institut "Giprotsvetmetobrabotka")

AVAILABLE: Library of Congress

Card 2/2

VODYANAYA, T.A.; MAKULOV, N.A.; ESSEN, A.I.

Spectrum analysis of NIVO-3, NIKA, SKA-1, AMgK, No. 149, AMg6-1 alloys by metal specimens. Trudy Giprotsvetmetobrabotka no.24:355-358 '65. (MIRA 18:11)

ESSEN, D.N.

USSR/Inorganic Chemistry - Complex Compounds C.

Abs Jour : Referat Zhur - Khimiya, No 2, 1957, 4C99

Author : Gel'man, A.D., Essen, D.N.
Inst : Academy of Sciences USSR
Title : Preparation of Nitrodichloro-Monoammino Platoate of Potassium

Orig Pub : Dokl. AN SSSR, 1956, 107, No 6, 835-836

Abstract : To prepare crystalline $K[PtNH_3ClNO_2Cl] \cdot H_2O$ (I) 1 mole of $NaNO_2$ was added to a warm aqueous solution of $K[PtNH_3Cl_3]$ (II). By addition of $[Pt(NH_3)_4]Cl_2$ to the reaction mixture a yellowish-orange precipitate of $[Pt(NH_3)_4][PtNH_3ClNO_2Cl]_2$ (III) was produced. Salt III was ground with water and there was added thereto a calculated amount of $K_2[PtCl_4]$. The Magnus salt that was formed was filtered off and the solution was evaporated at 50-60° on a water bath. The residue was ground repeatedly with alcohol. Dried over $CaCl_2$ it

Card 1/2 - 15 -

USSR/Inorganic Chemistry - Complex Compounds C.

Abs Jour : Referat Zhur - Khimiya, No 2, 1957, 4099

had the composition I. The water is lost completely by I at 150°. On action of pyridine on an aqueous solution of I there is formed cis-$[C_5H_5NNO_2NH_3ClPt]$,

which is identical to the product that was obtained by the action of C_5H_5N on a solution of II + KNO_2.

Card 2/2 - 16 -

ESSEN, L. N.

Nov 48

USSR/Chemistry - Platinum
Chemistry - Isomers

"Obtaining ($NH_3C_5H_5NClBrPt$) in the Form of Three Expanded Isomers," A. D. Gel'man, Ye. F. Karandashova, L. N. Essen, Inst of Gen and Inorg Chem imeni N. S. Kurnakov, Acad Sci USSR, 4 pp

"Dok Ak Nauk SSSR" Vol LXIII, No 1

Studied problem of obtaining three expanded isomers of a complex compound of bivalent platinum with the most typical intrasphere substitutes (pyridine, ammonia, chlorine, bromine), using I. I. Chernyayev's law. Analyzed trans- and cis-isomers and tabulated the properties of the three isomers. Submitted by Acad I. I. Chernyayev 26 Jun 48.

61/49T17

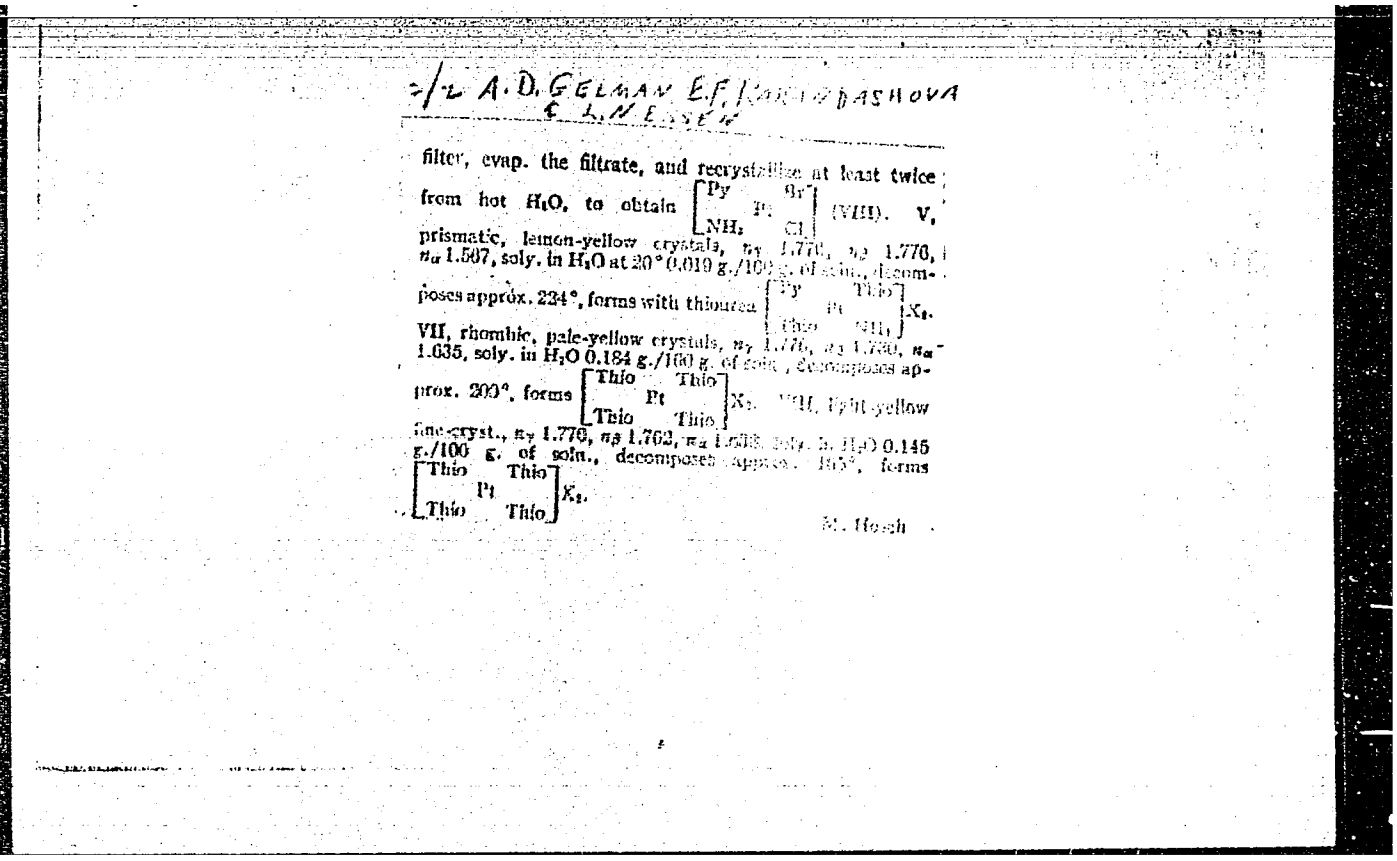
ESSEN, L. N.

Production of chlorobromopyridinoamminoplatinum in its three isomeric forms. A. D. Gel'man, G. F. Karandashova, and L. N. Essen. *Izvest. Sektora Platiny i Drugikh Blagorod. Metallov Inst. Obshchei i Neorg. Khim., Akad. Nauk S.S.S.R.* No. 24, 60–71(1949).—*cis*-$[Pt(NH_3)_2Py_2]Cl_2$ (I) with C_5H_5N gives *cis*-$[Pt(NH_3)_2Py_2]Cl_2$ (II). II with HCl gives *trans*-$[PtNH_3PyCl_3]$ (III). III + $AgNO_3$ + H_2O → $[PtPyClNH_3H_2O]NO_3$ (IV) + AgCl. IV + KBr → $[PtPyBrNH_3Cl]$ (V) + KNO_3 + H_2O or III + *trans*-$[PtPyBr_3NH_3]$ (VI) → 2 V or III + KBr → V + KCl or VI + KCl → V + KBr. Dissolve with heat 1.7 g. I in 3 ml. C_5H_5N and 50 ml. H_2O, cool, filter, add 30 ml. concd. HCl, and heat 2 hrs. under CO_2 atm. Cool, filter, and wash the ppt. until the filtrate is free of Cl. Heat the filtrate with HCl and repeat the preceding operations. Combine the 2 ppts., recrystallize III from hot H_2O, and dry over $CaCl_2$. By the first method dissolve 0.6310 g. of III in 500 ml. of H_2O. Add 0.2801 g. of $AgNO_3$ (in soln.), heat, keep in a dark place to settle out, and filter. To the filtrate add 0.2074 g. of KBr, filter, and recryst. [illegible] from hot H_2O. By the second method to a hot soln. of III [illegible] quantity of VI, heat to complete soln., [illegible] cool slowly. By the third method dissolve 0.8181 g. of [illegible] approx. 70 ml. of hot H_2O, add 0.2080 KBr, heat on [illegible] water bath for 4–5 hrs., and cool slowly. By the fourth [illegible] dissolve 0.5080 g. of VI in 400 ml. of hot H_2O [illegible] 0.098 g. of KCl, heat for approx. 4 hrs. at 80–90°, [illegible] slowly. One of the cis isomers was synthesized according to

$$NH_4\left[\begin{matrix}NH_3 & Cl\\ Cl & Pt\end{matrix}\begin{matrix}\\ Cl\end{matrix}\right] + KBr \rightarrow NH_4\left[\begin{matrix}NH_3 & Br\\ Cl & Pt\end{matrix}\begin{matrix}\\ Cl\end{matrix}\right] + KCl$$

$$NH_4\left[\begin{matrix}NH_3 & Br\\ Cl & Pt\end{matrix}\begin{matrix}\\ Cl\end{matrix}\right] + Py \rightarrow \left[\begin{matrix}Py & Cl\\ NH_3 & Pt\end{matrix}\begin{matrix}\\ Br\end{matrix}\right] (VII) + NH_4Cl$$

To obtain the 2nd cis isomer dissolve 0.73[illegible] g. of K[Pt-$PyCl_3$] in a small vol. of slightly acidified H_2O. Filter and add 0.2039 g. of KBr. Heat over the water bath for 45 min., cool, and add dropwise with stirring [illegible] 1 KOH, using 2–3 drops more than the required quantity for 2 hrs. at room temp. with occasional stirring [illegible] ance.



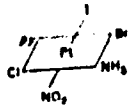
=/= A. D. GELMAN E. F. KARPOVA & L. NESSEN

filter, evap. the filtrate, and recrystallize at least twice from hot H_2O, to obtain $\left[\begin{matrix} Py & Br \\ & Pt \\ NH_3 & Cl \end{matrix}\right]$ (VIII). V, prismatic, lemon-yellow crystals, n_γ 1.770, n_β 1.770, n_α 1.567, soly. in H_2O at 20° 0.019 g./100 g. of soln., decomposes approx. 234°, forms with thiourea $\left[\begin{matrix} Py & Thio \\ & Pt \\ Thio & NH_3 \end{matrix}\right]X_2$. VII, rhombic, pale-yellow crystals, n_γ 1.770, n_β 1.750, n_α 1.635, soly. in H_2O 0.184 g./100 g. of soln., decomposes approx. 200°, forms $\left[\begin{matrix} Thio & Thio \\ & Pt \\ Thio & Thio \end{matrix}\right]X_2$. VIII, light-yellow fine-cryst., n_γ 1.770, n_β 1.762, n_α 1.603, soly. in H_2O 0.145 g./100 g. of soln., decomposes approx. 185°, forms $\left[\begin{matrix} Thio & Thio \\ & Pt \\ Thio & Thio \end{matrix}\right]X_2$.

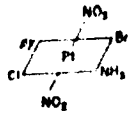
M. Hosh

c/t ESSEN, L.N.

Complex compounds of quadrivalent platinum with six different substituents in the inner sphere. A. D. Gel'man and L. N. Essen (N. S. Kurnakov Inst. Gen. Inorg. Chem. Acad. Sci. U.S.S.R., Moscow). *Doklady Akad. Nauk S.S.S.R.* 75, 693–6(1950).—The



isomer of [Pt(NO$_2$)(NH$_3$)BrIpy] (I) (py = C$_5$H$_5$N) was synthesized by first heating *trans*-[Pt(NH$_3$)$_2$BrIpy]Br with HNO$_2$, which yielded



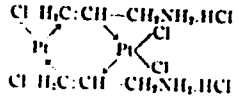
(II), bright-yellow, refractive indexes n_g > 1.782, n_p = 1.75, soly. in H$_2$O 0.033 g./100 g. soln. at 18°, stable up to 200°. On addn. of the calcd. amt. of KI to a boiling soln. of II, a dark-brown soln. was formed which, on cooling to room temp., gave a ppt. of dark-brown crystals, n_g > 1.782, with yellowish to black pleochroism, m. 233° (decompn.), soly. in H$_2$O, 0.004 g./100 g. soln. at 25°, easily sol. in alk. The analysis corresponds to I.

1951

Cf Essen, L. N.

6

Complex compounds of platinum with allylamine. A. D. Gel'man and L. N. Essen (N. S. Kurnakov Inst. Gen. and Inorg. Chem., Acad. Sci. U.S.S.R., Moscow). *Doklady Akad. Nauk S.S.S.R.* 77, 273–8(1951).—Reaction of a neutral soln. of K_2PtCl_4 with $CH_2{:}CHCH_2NH_2$ (I) gives the salt $[PtCl_2I_2]$ (II) dark-yellow, stable on heating with H_2O, sparingly sol., dissolving in NH_4OH with a reddish brown color. That soln. in NH_4OH, acidified with HCl, gives with K_2PtCl_4 a dirty-green ppt. of $[(NH_3)_2PtI_2][PtCl_4]$. These reactions prove that in II, the double bond of I takes no part in the complex formation; I is bound to the Pt only by the NH_2 group. Addn. of I to the Pt atom through the double bond takes place on heating in an acid medium or on prolonged reaction at room temp. Thus, heating of a strongly acid soln. of K_2PtCl_4 with I gives a golden-yellow soln., which on cooling ppts. golden-yellow crystals of a dimer $[Cl_2PtCH_2{:}CHCH_2NH_2\,HCl]_2$ (III); to this the structure



is assigned by analogy with C_2H_4 and $PhCH{:}CH_2$ complexes. Heating with H_2O produces a Pt mirror; this indicates bonding through the double bond. Prolonged heating of III with 10% HCl gives the Zeise-type acid $H[Cl_2PtI.HCl]$ (IV), which on careful neutralization with 5% NaOH forms a canary-yellow ppt. of $[Cl_2PtI]$ (V), obviously a cyclic complex, $\begin{bmatrix} Cl & CH_2{:}CH \\ Pt & \vert \\ Cl & NH_2CH_2 \end{bmatrix}$, giving metallic Pt on boiling with H_2O. This structure is confirmed by the synthesis $NH_4[Cl_3PtC_2H_4]$ (Zeise's salt) + I HCl → $NH_4[Cl_2PtI.HCl]$ + C_2H_4 (evolved), followed by $NH_4[Cl_2PtI\,HCl]$ + NaOH → V

N. Thon

1952

[illegible], L.A.

[illegible], L.A. -- "Obtaining Complex Compounds of Tetravalent Platinum with Six Different Substitutions in the Internal Sphere." Acad Sci USSR. Inst of General and Inorganic Chemistry imeni N.S. Kurnakov. Inst of Physical Chemistry. Moscow, 1956
(Dissertation for the Degree of Cand Chem Sciences.)

SO: Knizhnaya Letopis,' No 9, 1956