L 13762-65 EWP(e)/EWT(m)/EPF(n)-2/EPR/EWP(b) Ps-4/Pu-4 ASD(d)/ASD(m)-3 JD/
ACCESSION NR: AP4045190 JG/AT/WH S/0080/64/037/009/1872/1878

AUTHOR: Samsonov, G. V.; Obolonchik, V. A.; Paderno, Yu. B.; Serbina, R. V.; Fomenko, V. S.; Ogorodnikov, V. V.

TITLE: Synthesis and some physical and chemical properties of the binary lanthanum-sodium boride

SOURCE: Zhurnal prikladnoy khimii, v. 37, no. 9, 1964, 1872-1878

TOPIC TAGS: boride, lanthanum boride, lanthanum sodium boride, lanthanum sodium boride synthesis, boride synthesis, lanthanum sodium boride property

ABSTRACT: The binary lanthanum-sodium boride was obtained by electrolysis of a fused salt electrolyte consisting of 160 g borax, 30 g sodium fluoride, and 15 g lanthanum oxide. The electrolysis was performed at 900—950C with a current density of 0.5 amp/cm^2. The cathode deposits obtained under the above conditions contained 55.6% lanthanum, 6.8% sodium, 36.8% boron, 0.4% free carbon, and no free boron. The composition could be varied by changing the amount of

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L 13762-65
ACCESSION NR: AP4045190

borax in the electrolyte. X-ray diffraction patterns of three binary borides of different compositions contained only the lanthanum hexaboride lines. The increase of the lattice constant with increasing sodium content indicates that sodium atoms first replace lanthanum atoms in the lanthanum hexaboride lattice and then gradually replace octahedral boron complexes. Hot compacted binary boride has a uniform structure consisting of square-shaped crystals with a microhardness of 2200—2300 kg/mm^2. At a porosity of 2%, the hot-compacted boride has a resistivity of 113.4 μohm·cm at room temperature, which increases linearly to 275 μohm·cm at 900C. The work function also increases linearly from 2.6 ev at 1000C to 4.05 ev at 1770C. The work function has a tendency to increase with the time. The emission current of binary boride is two orders lower than that of lanthanum hexaboride. Orig. art. has: 7 figures and 6 tables.

ASSOCIATION: none

SUBMITTED: 07Jan63 ATD PRESS: 3131 ENCL: 00

SUB CODE: IC, GC NO REF SOV: 005 OTHER: 005

Card 2/2

OBCHAN-HIK, V.A.

Method of purification of technical metallic uranium and its preparations. Zhur. prikl. khim. 37 no.9:[illegible]

L 11280-65 EWT(m)/EWP(t)/EWP(b) JD/JG

ACCESSION NR: AP4045196 S/0080/64/037/009/2046/2047

AUTHOR: Obolonchik, V. A. B

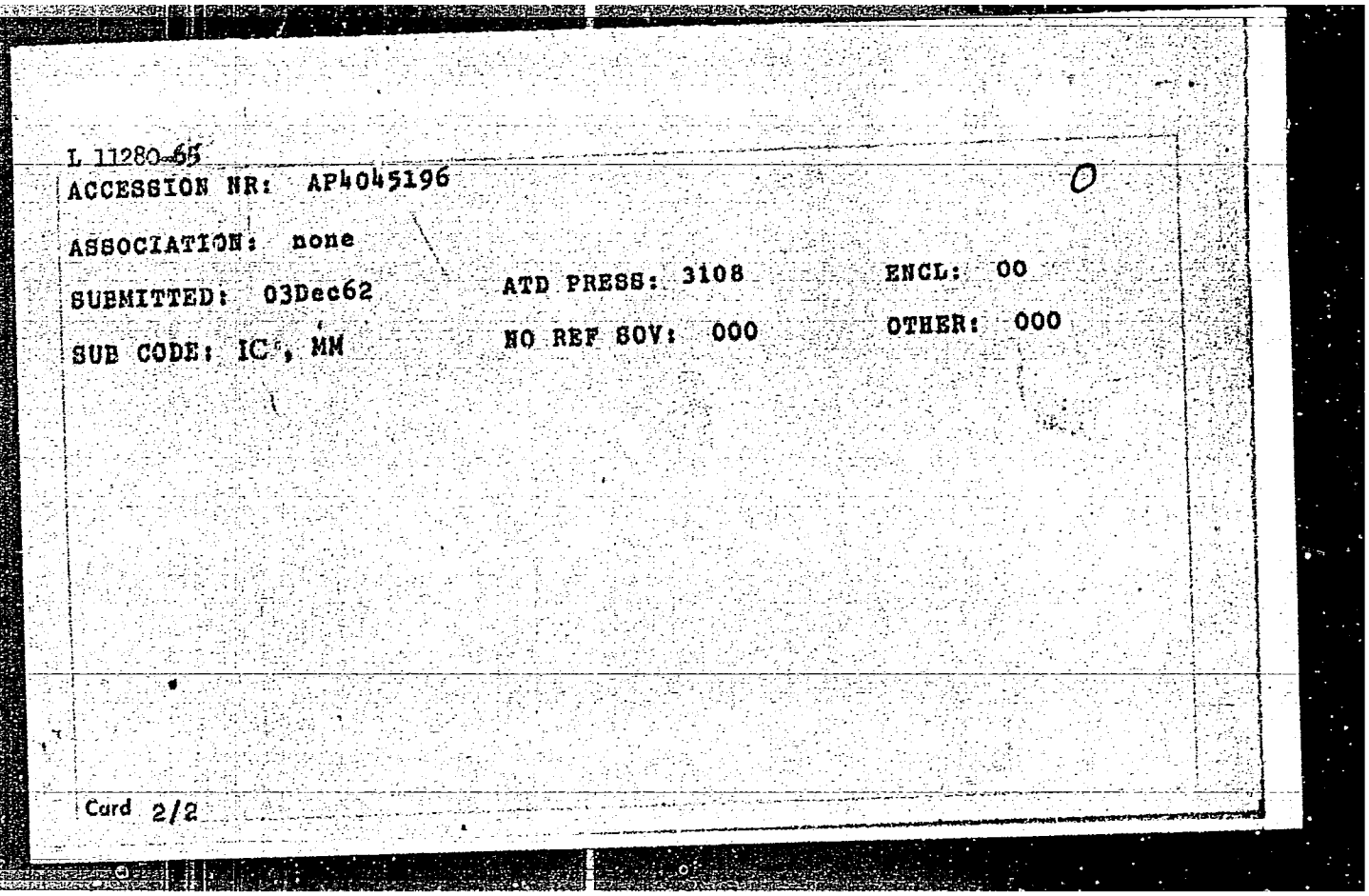
TITLE: Method of purification of rhenium and rhenium compounds 27

SOURCE: Zhurnal prikladnoy khimii, v. 37, no. 9, 1964, 2046-2047

TOPIC TAGS: rhenium, rhenium purification, ammonium perrhenate, ammonium perrhenate purification

ABSTRACT: High-purity rhenium with an impurity content not exceeding 0.01% can be obtained by the dissolution of commerical-grade rhenium in concentrated nitric acid, followed by filtering which eliminates the silicon dioxide. The filtrate is neutralized with ammonia, which converts rhenium into ammonium perrhenate and precipitates iron and aluminum as hydroxides and potassium as perrhenate. The ammonium perrhenate crystallized from the second filtrate is repeatedly dissolved and crystallized, which process results in a product of spectral purity containing none of the impurities usually accompanying rhenium. This rhenium perrhenate is then reduced with hydrogen to metal. Orig. art. has: 1 figure.

Card 1/2



L 11280-65

ACCESSION NR: AP4045196 0

ASSOCIATION: none

SUBMITTED: 03Dec62 ATD PRESS: 3108 ENCL: 00

SUB CODE: IC, MM NO REF SOV: 000 OTHER: 000

Card 2/2

OBOLONCHIK, V., kand.khim.nauk

Refractory oxygen free compounds. Inform.sb. VINITI no.4 Ap '65.

1. Institut problem materialovedeniya AN UkrSSR.

L 50993-65 EWP(e)/EPA(s)-2/EWT(m)/EPF(c)/EWP(i)/EPF(n)-2/EWG(m)/EWP(v)/EPR/
EPA(w)-2/T/EWP(t)/EWP(k)/EPA(bb)-2/EWP(b)/EWA(c) Pab-10/Pq-4/Pf-4/Pr-4/Ps-4/
Pt-7/Pu-4 IJP(c) JD/WW/HM/JG/AT/WH UR/0226/65/000/004/0107/0107
ACCESSION NR: AP5010410

93
89
B

AUTHOR: Obolonchik, V. A.

TITLE: Conference on the use of rare metals in the national economy

SOURCE: Poroshkovaya metallurgiya, no. 4, 1965, 107

TOPIC TAGS: conference, rare metal, rare metal application, refractory material, cermet, single crystal

ABSTRACT: A conference of the Scientific Council on problems in the use of rare metals in the national economy, sponsored by GEOKhIM, Academy of Sciences USSR, was held 24-25 December 1964 in Moscow. The Council, under the chairmanship of Professor E. K. Keller (Institute of Silicate Chemistry, Academy of Sciences USSR), discussed plans for producing nonmetallic refractory materials with the use of oxygen-free rare metals, oxygen refractory compounds, and cermets and for diffusion welding of refractory compounds, intermetallic compounds, and special glasses. The use of zirconium, which has unique refractory properties, in the casting industry has been developed at the Institute of Foundry Problems of the Ukrainian Academy of Sciences. The heterogeneous equilibrium and solid-phase reaction in refractory-oxide systems,

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L 50993-65

ACCESSION NR: AP5010410

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the properties of various compounds, and the growing and analysis of single-crystals have been studied at the Institute of Silicate Chemistry. Electrophysical investigations of refractory materials for use as heating and lining materials continues at VNIETO, and studies of zirconium silicides are being conducted at the Institute of Ferrous Metallurgy im. Baykova. [AZ]

ASSOCIATION: none

SUBMITTED: 00 ENCL: 00 SUB CODE: GO, MM

NO REF SOV: 000 OTHER: 000 ATD PRESS: 4014

Card 2/2

L 60026-65 EWP(e)/EWT(m)/EWP(t)/EWP(k)/EWP(z)/EWP(b) Pf-4 IJP(c) JD

ACCESSION NR: AP5018272 UR/0226/65/000/007/0041/0044

25
24
B

AUTHOR: Obolonchik, V. A.; Lynchak, K. A.

TITLE: Determination of the relative dispersity of certain metal powders 14

SOURCE: Poroshkovaya metallurgiya, no. 7, 1965, 41-44

TOPIC TAGS: particle size measurement, crystal violet, malachite green, silver powder dispersity, powder metallurgy, dye adsorption

21

ABSTRACT: To determine the relative dispersity of silver powder, the authors worked out an adsorption method involving the use of the triphenylmethane dyes crystal violet and malachite green. The method consisted in the adsorption of the dye onto the surface of the silver particles from solution. The greater the surface area of the powder, i.e., the smaller the particle size, the greater the amount of dye adsorbed thereon. After removing the excess solution, the dye adsorbed by the metal is dissolved in water and determined colorimetrically. Since crystal violet is adsorbed to a greater extent than malachite green on silver, it gives better results (the method is more sensitive). The method can be applied to other metals as well, but first it is necessary to plot the adsorption isotherms, which will characterize the nature of the powder and dye, and will

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L 60026-65

ACCESSION NR: AP5018272

determine whether the method is really applicable. If no reproducible results are obtained when the adsorption isotherms are plotted, oxidation of the metal may be the cause, and the method cannot be used for that particular powder. Orig. art. has: 3 figures.

ASSOCIATION: Institut problem materialovedeniya AN UkrSSR (Institute of Materials Science Problems, AN UkrSSR)

SUBMITTED: 06Jul64 ENCL: 00 SUB CODE: MM

NO REF SOV: 002 OTHER: 002

Card 2/2 NDP

L 16806-66 EWT(m)/EWP(t) LJP(c) JD/JG
ACC NR: AP6003368 SOURCE CODE: UR/0363/66/002/001/0100/0104

AUTHOR: Obolonchik, V.A.; Lashkarev, G.V.; Dem'yanchuk, V.G. 34 B

ORG: Institute of Materials Science Problems, Academy of Sciences SSSR (Institut problem materialovedeniya Akademii nauk SSSR)

TITLE: Preparation and some physicochemical properties of rare earth oxytellurides 55,27 27

SOURCE: AN SSSR. Izvestiya. Neorganicheskiye materialy, v. 2, no. 1, 1966, 100-104

TOPIC TAGS: rare earth, telluride, lanthanum compound, cerium compound, praseodymium compound, neodymium compound, samarium compound, gadolinium compound, dysprosium compound

ABSTRACT: Oxytellurides of stoichiometric composition corresponding to the formula M_2O_2Te (where M = La, Ce, Pr, Nd, Sm, Gd, Dy) were synthesized by reacting rare earth oxides with tellurium vapor in a hydrogen atmosphere in graphite boats at temperatures of 1000 — 1100C. The oxytellurides are unstable. Lanthanum, praseodymium, neodymium, and samarium oxytellurides are stable at elevated temperatures in air because of formation of a thin metal oxide film on the surface. The electrical conductivity at room temperature and the temperature dependence of the thermal expansion

Card 1/2 UDC: 546.442'24'45:543.5

L 16806-66
ACC NR: AP6003368

of praseodymium, neodymium, and samarium oxytellurides were measured for the first time, as was the temperature dependence of the magnetic susceptibility of the oxytellurides from lanthanum to samarium. The nature of chemical bonding, which causes the conductivity of these compounds to be nonmetallic in character, is discussed. Orig. art. has: 1 figure, 4 tables, and 2 formulas.

SUB CODE: 11 / SUBM DATE: 03Jun65 / ORIG REF: 005 / OTH REF: 003

Card 2/2 mc

L 57869-65 EWT(1)/EWT(m)/EWG(m)/T/EWP(t)/EWP(b)/EWA(h) Pz-6/Peb IJP(c)
RDW/JD/JG/AT
ACCESSION NR: AP5017774 UR/0080/65/038/007/1451/1456
546.655'23

30
B

AUTHOR: Obolonchik, V. A.; Mikhlina, T. M.

TITLE: Cerium selenides and oxyselenide

SOURCE: Zhurnal prikladnoy khimii, v. 38, no. 7, 1965, 1451-1456

TOPIC TAGS: rare earth selenide, cerium selenide, cerium monoselenide, cerium sesquiselenide, cerium oxyselenide, selenide preparation, semiconductor material

ABSTRACT: Preparation of cerium selenides has been studied in the first of a series of studies on the selenides of rare-earth elements. The study was initiated because of the possible use of these selenides in semiconductor and other new technological fields and because very few data are available in the literature. Direct synthesis from the elements was discarded as unpractical, partly because of the scarcity of pure rare-earth elements. Two indirect methods were explored. One, the reaction of pure cerium dioxide with pure selenium in solid phase produced at 1100—1200C and under specified conditions nearly pure cerium oxyselenide Ce_2O_2Se. The data obtained at temperatures to 1350C suggested that at even higher temperatures preparation of cerium selenide CeSe would be possible. Electric resistivity of the compacted and slightly sintered Ce_2O_2Se sample was found to be of the order of

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L 57869-65
ACCESSION NR: AP5017774

4×10^5 ohm·cm. The second method consisted of reacting pure cerium dioxide with hydrogen selenide which was synthesized in the reactor. Nonstoichiometric cerium monoselenide was obtained by this reaction at 1100C after 2 hr. At longer (5—6 hr) reaction time and 1100—1200C, a stoichiometric cerium selenide Ce_2Se_3 was obtained. The latter can be converted into CeS by heating in hydrogen stream or in vacuum. Orig. art. has: 3 figures and 3 tables. [JK]

ASSOCIATION: none

SUBMITTED: 10Jun62 ENCL: 00 SUB CODE: IC, GC

NO REF SOV: 000 OTHER: 006 ATD PRESS: 4038

Card 2/2

L 11148-66 EWT(m)/EIC(F)/EWG(m)/EWP(t)/EWP(b) IJP(c) RDW/JD

ACC NR: AP6000688 SOURCE CODE: UR/0080/65/038/009/2100/2103

AUTHOR: Obolonchik, V. A.; Mikhlina, T. M.

ORG: Institute for the Problems of Materials of the AN UkrSSR (Institut problem materialovedeniya AN UkrSSR)

TITLE: Lanthanum selenides and oxyselenides

SOURCE: Zhurnal prikladnoy khimii, v. 38, no. 9, 1965, 2100-2103

TOPIC TAGS: selenide, selenium compound, lanthanum compound, chemical reaction, hydrogenation

ABSTRACT: A series of experiments was made on the reaction of lanthanum chloride and hydrogen selenide. This method can be illustrated by the following equations:

$$2LaCl_3 + 3H_2Se \rightarrow La_2Se_3 + 6HCl,$$

$$2LaCl_3 + 4H_2Se \rightarrow La_2Se_4 + 6HCl + H_2.$$

Hydrogen selenide was synthesized from 99.998% pure selenium in a quartz reactor and was passed over lanthanum powder at temperatures on the order of 300-1200°C. Results of the reaction are shown in tabular form.

Card 1/2 UDC: 546.654'23

L 11148-66

ACC NR: AP6000688 O

To obtain lanthanum diselenide, the temperature was gradually increased to 750-800°C and was held at this level for 2 hours. To obtain hydrogen sesquiselenide, the temperature was raised to 1100-1150°C and held at this level for 2-2.5 hours. To study the stability of La_2Se_3 and La_2Se_4, and to obtain a phase with a lower content of selenium, studies were carried out on the hydrogenation of lanthanum sesquiselenide. At temperatures of 350-380°C, there was obtained a black product corresponding by analysis to lanthanum sesquiselenide. This phase is stable up to a temperature of 550°C; at higher temperatures (on the order of 900°C) there is evolved the known brick-colored lanthanum sesquiselenide. The data indicate that lanthanum oxyselnide, La_2O_2Se, is obtained in the reaction of lanthanum oxide with selenium in an inert atmosphere at temperatures of 1100-1200°C. The action of hydrogen selenide on lanthanum oxide or chloride at 700-800°C leads to the production of La_2Se_4, while at temperatures of 1100-1200°C it leads to the production of lanthanum sesquiselenide, La_2Se_3. On heating lanthanum sesquiselenide to 1200°C in a stream of hydrogen, the selenium content decreases to a limiting value corresponding to lanthanum sesquiselenide. Orig. art. has: 3 figures and 2 tables.

SUB CODE: 07/ SUBM DATE: 20Jul63/ ORIG REF: 001/ OTH REF: 003

Card 2/2

OBOLONCHIK, V.A.; RADZIKOVSKAYA, S.V.; BUKHANEVICH, V.F.

Studying niobium and tantalum sulfides. Porosh.met. 5 no.11:9-14 N '65. (MIRA 18:12)

1. Institut problem materialovedeniya AN UkrSSR. Submitted May 7, 1965.

L 30386-66 EWT(m)/EWP(t)/ETI IJP(c) JD/JG

ACC NR: AP6019663 SOURCE CODE: UR/0073/66/032/006/0567/0572

AUTHOR: Obolonchik, V. A.; Mikhlina, T. M.

ORG: Institute of the Science of Materials, AN UkrSSR (Institut problem materialovedeniya AN UkrSSR)

TITLE: Selenides of praseodymium, neodymium, samarium, and europium

SOURCE: Ukrainskiy khimicheskiy zhurnal, v. 32, no. 6, 1966, 567-572

TOPIC TAGS: selenide, ~~polyselenide~~, praseodymium, neodymium, samarium, europium, CHEMICAL REACTION

ABSTRACT: Polyselenides of praseodymium, neodymium and samarium of the Me_2S_4 type were prepared by reacting the respective metal oxides with hydrogen selenide at 750—800C. Sesquiselenides of these metals were prepared by similar reactions at 1100—1200C, or by thermal decomposition of the polyselenides in hydrogen or in an inert gas. The reaction of europium with hydrogen selenide at 1100C yielded europium monoselenide (EuSe); europium selenides with a higher selenium content were not obtained. The preparative procedure of the selenides, their properties, their stability in various media, and the preparation of compacted selenide specimens are described in the source. Orig. art. has: 3 figures and 3 tables. [BO]

SUB CODE: 07/ SUBM DATE: 03Dec64/ OTH REF: 005/ ATD PRESS: 5017

Card 1/1 CC UDC: 546.655.23

EWT(m)/EWP(e)/EWP(t)/ETI IJP(c) WH/JD

ACC NR: AP6028294 SOURCE CODE: UR/0363/66/002/006/0980/0983

AUTHOR: Dudnik, Ye. M.; Lashkarev, G. V.; Paderno, Yu. B.; Obolonchik, V. A.

ORG: Institute of Materials Science Problems, Academy of Sciences, UkrSSR (Institut problem materialovedeniya Akademii nauk UkrSSR)

TITLE: Thermal expansion of rare earth chalcogenides

SOURCE: AN SSSR. Izvestiya. Neorganicheskiye materialy, v. 2, no. 6, 1966, 980-983

TOPIC TAGS: thermal expansion, selenide, telluride, rare earth compound

ABSTRACT: The temperature dependence of the relative elongation of EuS, EuSe, La_2Se_3, Ce_2Se_3, Pr_2Se_3, Nd_2Se_3, Nd_2Se_3, Sm_2Se_3, Sm_2S_3, Pr_2O_2Te and Sm_2O_2Te was studied in the range from room temperature to 800°K. The measurements were made with a quartz dilatometer. In passing from the rare earth metals to their compounds with an ionic-covalent bond character, the thermal expansion coefficient α increases (with the exception of europium), apparently because of an increased anharmonicity of the thermal vibrations of the crystal lattice. The value of α of the chalcogenides increases in the rare earth series and in passing from sulfides to selenides; this is also due to increased anharmonicity. The α values of oxytellurides are intermediate between those of oxides and sesquisulfides. From the α values, the Debye temperatures θ of the compounds were calculated and found to decrease with increasing atomic number of the rare earth metal (except in the case of samarium). The melting points of the sesquisele-

Card 1/2 UDC: 546.651/659'851:536.413

L 06482-67
ACC NR: AP6028294

nides were also estimated from the α values. Authors express their appreciation to T. M. Mikhlina and V. G. Dom'yanchuk for assistance in the preparation of the compact samples and for performing chemical analyses of the rare earth chalcogenides, and also to S. V. Radzikovskaya and Ye. D. Leonova for carrying out the chemical analysis of pyrite and for assistance in the preparation of Sm_2S_3 and EuS samples. Orig. art. has: 4 tables and 3 formulas.

SUB CODE: 07,20/ SUBM DATE: 29Jun65/ ORIG REF: 017/ OTH REF: 005

Card 2/2 hs

ACC NR: AP6009569 (N) SOURCE CODE: UR/0226/65/000/011/0009/0014

AUTHOR: Obolonchik, V. A.; Radzikovskaya, S. V.; Bukhanevich, V. F.

ORG: Institute for the Study of Materials, AN UkrSSR (Institut problem meterialovedeniya AN UkrSSR)

TITLE: Study of the sulfides of niobium and tantalum

SOURCE: Poroshkovaya metallurgiya, no. 11, 1965, 9-14

TOPIC TAGS: sulfide, hydrogen sulfide, niobium, tantalum, oxidation, crystal lattice structure

ABSTRACT: The interaction between Nb and Ta metal powders and H_2S was investigated with the aid of the setup shown in Fig. 1, in the presence of a hydrogen flow rate of 0.2 liter/min. Following purification to remove oxygen, a current of hydrogen is passed over molten sulfur in reactor 4 where it interacts with S vapors so as to form H_2S which then proceeds to quartz reactor 5 which contains a porcelain boat with the suspension of Nb or Ta. The resulting ($NbS_{1,6}$ at 1000-1300°C, TaS_2 at 1400°C) sulfide is then cooled in a H_2S current and analyzed for the content of metal and total and free sulfur. $NbS_{1,6}$ is a black-colored powder which does not decompose in air. Radiographic examination showed that the lattice parameters of $NbS_{1,6}$

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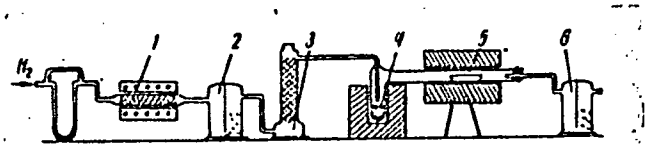

Fig. 1. Diagram of setup for sulfide synthesis

1 - heated tube with platinized asbestos; 2 - Tishchenko flask with conc. H_2SO_4; 3 - P_2O_5-filled column; 4 - reactor for H_2S synthesis; 5 - reactor for sulfide synthesis; 6 - Tishchenko flask with 15-20% NaOH (for absorption of excess H_2S)

are: a = 3.338 Å and c = 17.82 Å. Its pycnometric density, as determined in toluene, was 5.9 g/cm^3 against the calculated 6.0 g/cm^3. For TaS_2 the lattice parameters are: a = 3.37 Å and c = 5.89 Å and the pycnometric density, 7.10 g/cm^3 in toluene (against the calculated

ACC NR: AP6009569

7.16 g/cm^3). TaS_2 is a black-colored powder with a greenish tinge, which also does not decompose in air. The resistance of both sulfides to various aggressive media (HCl, H_2SO_4, HNO_3, H_3PO_4, NaOH (40% and 10%), H_2O_2, H_2O, bromine water) on heating for 1 hr was investigated. Findings: $NbS_{1,6}$ and TaS_2 are completely resistant to boiling in water but totally decompose in solutions of oxidizing agents: conc. H_2SO_4, dil. HNO_3, and H_2O_2. In addition the oxidizability of $NbS_{1,6}$ and TaS_2 on heating in a current of O_2 (200 ml/min) was investigated as a function of time. It was found that both sulfides are resistant to O_2 at up to 300°C; beyond this temperature both sulfides begin to oxidize and release SO_2. $NbS_{1,6}$ gets completely oxidized at 400°C and TaS_2, at 500°C; the final products are Nb_2O_5 or Ta_2O_5 (depending on the sulfide concerned) and SO_2. Orig. art. has: 6 tables, 3 figures.

SUB CODE: 07, 20/ SUBM DATE: 07May65/ ORIG REF: 002/ OTH REF: 006

Card 3/3

ACC NR: AM6017555 Monograph UR/

Obolonchik, Vasiliy Andreyevich; Lashkarev, Georgiy Vadimovich

Selenides and tellurides of rare-earth metals and actinides (Selenidy i telluridy redkozemel'nykh metallov i aktinoidov) Kiev, Naukova dumka, 1966. 161 p. illus., biblio. (At head of title: Akademiya nauk Ukrainskoy SSR. Institut problem materialovedeniya) 1500 copies printed.

TOPIC TAGS: selenide, telluride, rare earth metal, actinide series, lanthanide series, inorganic synthesis, chemical detection, quantitative analysis, semiconductor research

PURPOSE AND COVERAGE: This monograph attempts a systematic review of Soviet and Western research on selenides and tellurides of the rare-earth metals and actinides for the benefit of the engineers, technicians, and scientists working in the field of research and application of rare-earth metals and actinides. An up-to-date collection of research data, mostly Western, was systematically presented in this monograph. The data concern crystal structure, physical and chemical properties, methods of preparation and chemical analysis of selenides and tellurides of rare-earth metals and actinides (uranium and thorium). A general evaluation of the data presented was made in the foreword. The Soviet scientists, V. P.

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ACC NR: AM6017555

Zhuze, V. M. Sergeyeva, and A. V. Golubkov from Leningrad, N. P. Luzhnaya, V. I. Spitsyn, and Ye. I. Yarembash from Moscow, and G. V. Samsonov and S. V. Radzikovskaya from Kiev are considered to be the chief contributors to the research on preparation and properties of the rare earth metal chalcogenides. The possibility of the application of these compounds in high-temperature semiconductor electronics is stressed in the foreword. Included in the monograph are the most recent (1965) contributions by the authors to knowledge of physical and chemical properties and to preparation of certain selenides and oxytellurides of rare-earth metals. Chapters I, III, IV, V, and VII were written by V. A. Obolonchik, II and VI by G. V. Lashkarev. Thanks are expressed to A. M. Golub, professor, PhD in chemistry, and to Yu. B. Paderno, Candidate of Technical Sciences. There are 121 references, including about 30% Communist sources.

TABLE OF CONTENTS:

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ACC NR: AM6017555

SUB CODE: 07, 11/ SUBM DATE: 23Feb66/ ORIG REF: 034/ OTH REF: 087

Card 3/3

OBOLONIN, A., inzh.

Automobile repair shops of province automobile trusts. Avt.transp. 36 no.8:27-28 Ag '58. (MIRA 11:9)
(Automobiles--Maintenance and repair)

OBOLONIN, A., inzh.

Installation of pile foundations in winter. Zhil. stroi. no.6: 28-29 '63. (MIRA 16:10)

OBOLONIN, A.I.

DOROGIN, P.Ya.; OBOLONIN, A.I.

Standard guardrail for mast hoists. Sbor.mat.o nov.tekh.v stroi. 16 no.3:14-15 '54. (MLRA 7:5)
(Hoisting machinery--Safety appliances)

OBOLONIN, A.I.

Installing reinforced concrete water corduits in quicksand under conditions of lowered ground water level. Vod.i san.tekh. no.1: 36-37 Ja '60. (MIRA 13:4)
(Rubtsovsk--Water-supply engineering)

OBOLONIN, A.I., dotsent

Analysis of causes of the collapse of precast cornices and frontons completed on previously frozen concrete. Sbor. nauch. trud. TISI 8:89-94 '61. (MIRA 15:1)

1. Tomskiy inzhenerno-stroitel'nyy institut, kafedra "Stroitel'noye proizvodstvo".
(Architecture--Details) (Precast concrete construction)

GREBENNIK, L.I.; PASHCHENKO, N.I.; OBOLONINA, A.I.

Effect of tuberculostatic preparations on the vitamin C level in pulmonary tuberculosis. Sov. med. 23 no.5:76-81 My '59. (MIRA 12:7)

1. Iz otdela khimioterapii (zav. - prof. G. N. Pershin) Vsesoyuznogo nauchno-issledovatel'skogo khimiko-farmatsevticheskogo instituta imeni S. Ordzhonikidze i kafedry tuberkuleza (zav. - prof. I.Ye. Kochnova) II Moskovskogo gosudarstvennogo meditsinskogo instituta imeni N. I. Pirogova.

(TUBERCULOSIS, PULMONARY, ther.
tuberculostatics, eff. on vitamin C metab. (Rus))
(VITAMIN C, metab.
in pulm. tuberc., eff. of tuberculostatics (Rus))

OBOLONIN, Aleksey Ivanovich, dots.; KASITSYNA, K.N., inzh., nauchn. red.

[Setting pile foundations under large-panel apartment houses in winter time; practices of trusts of the Main Siberian Construction Administration] Ustroistvo svainykh fundamentov pod krupnopanel'nye doma v zimnee vremia; opyt trestov Glavzapsibstroia. Moskva, Stroiizdat, 1965 29 p. (MIRA 18:11)

Chizhov, D.G.

CHIZHOV, D.G.; KOGTEV, G.I.; LAVRENENKO, K.D.; SPIRIN, S.A.; NEKRASOV, A.M.; IVANOV, M.I.; UFAYEV, M.Ya.; GRISHIN, I.K.; KOSTIN, M.F.; POPOV, V.A.; ZAGORODNIKOV, P.I.; FEDOTOV, P.N.; KAZ'MIN, A.V.; FOMICHEV, G.I.; YERSHOV, P.I.; MESHCHERYAKOV, V.I.; YEFREMOV, S.G.; LEVIN, I.S.; LETUCHEV, L.I.; BELKIN, M.N.; OBOLONKOV, M.I.; BATENIN, B.A.; BUR'YANOV, B.P.; KAMATOV, P.I.; KOKOREV, S.V.

Nikolai Alekseevich Andreev. Elek. sta. 27 no.10:62 O '56.
(Andreev, Nikolai Alekseevich, 1897-1956) (MLRA 9:12)

OBOLONNYY, V.K.

OBOLONNYY, V.K.; PLYUTOVICH, V.N.; STEPANOV, Yu.A.

Neutralizing the destructive action of chromium in wrought iron by using ferrotitanium and aluminum as modifying agents. Trudy SETO MVTU no.3:67-75 '57. (MLRA 10:9)
(Iron-chromium-ferrotitanium-aluminum alloys)
(Iron alloys--Metallurgy)

Obolonnyi, V.K.

Distr: 4E4j/4E2c

Neutralization of the detrimental effect of chromium in malleable cast iron on modifying it with ferrotitanium and aluminum. V. K. Obolonnyi, V. N. Plyutovich, and Yu. [illegible] Plant [illegible] [illegible]

[illegible] slows down considerably the graphitization of the latter and makes impossible a normal annealing of casts thicker than 10-15 mm. The detrimental effect of Cr can be neutralized by modifying the cast iron by means of addns. of ferrotitanium (Ti) and Al. The resulting malleable cast iron is of superior quality and has the following mech. characteristics: its tensile strength is increased [illegible]

[illegible] as I and 0.015-0.025% Al. After modification of casts thicker than 20-5 mm. a segregation was observed. The latter was removed by addn. of 0.01% Te or Bi, which did not have any effect upon the graphitization of the malleable cast iron during annealing. Of the 2 modifiers preference is given to Al since it is more efficient than Ti; it is also cheaper and easier to handle. The superior efficiency of Al as a graphitization agent is due to a lower [illegible] [illegible] for industrial [illegible] reduced [illegible] caused by segregation, and reduced cost of production owing to the use of pig irons with a nor[illegible]

[illegible] Rawlik [illegible]

A-2
2

BC OBOLONSKAYA, N.A.

Vinylation of polyhydric alcohols. Experiments on vinylation of mannitol. V. V. Ushakovsky and N. A. Obolenskaya (*J. gen. Chem., USSR*, 1956, **26**, 671—677 (U.S. transl., 707—711)).—Reaction of mannitol with C_2H_2 in 10% KOH (usual vinylation conditions) gives a mixture of a cryst. triacetal, triethylidenemannitol, and a liquid (vac.-distilled), probably a complex mixture of mixed vinyl ethers-acetals. Polymeric material, insol. in Et_2O but sol. in KOH-C_2H_5 is also obtained. Possible structures of the complex materials formed are briefly discussed.

Mannitol (0·5 g.-mol.) in 10% KOH (500 ml.) is heated with C_2H_2 (added continuously so as to maintain a pressure of 10—12 atm.) in a bomb at 140—160° until the pressure no longer decreases. The resinous product is partly sol. in Et_2O. Distillation of the product or of its Et_2O-extract gives *triethylidenemannitol*, $C_{12}H_{20}O_6$, m.p. 77° (uncorr.), b.p. 245—270°/1 atm., d_4^{20} 1·1242, n_D^{20} 1·4665. Other fractions obtained (b.p. 110—210°/3 mm.) are characterised by analyses (C and H) and I-val.

E. S. Stern.

OBOLONSKAYA, N. A.

CA

Cat

19

Vinylation of cellulose. V. V. Shtutev-kii, N. A. Obolonskaya, and N. I. Nikitin. *Zhur. Prikl. Khim. (J. Applied Chem.)* 24, 1015-31(1951). Vinylation of purified sulfite cellulose (1% lignin and 5.1% H_2O) with C_2H_2 with 20–40% KOH catalyst 18–75 hrs. at 130–75° gave predominantly a fibrous product as well as a resinous alkali-sol. material. The latter after purification through Et_2O extn. failed to show any loss of AcH upon acid hydrolysis, whereas the fibrous products gave less than the expected amts. The fibrous product corresponds by analysis to 0.15-substitution, i.e., addn. of 1 mol. C_2H_2 per 2 glucose units, and was obtained under the milder conditions (above) as well as under the more drastic ones. The most drastic conditions (40% KOH, 33 hrs. reaction) gave a product which, on treatment with H_2O, sepd. into floating and sinking fractions. The former corresponds to the above formula; the latter was a product of addn. of 3 mols. C_2H_2 per 2 glucose units. Apparently the products are not vinyl ethers but further reaction products of them, such as acetals or ethylidene derivs. of cross-chain type. G. M. K.

19

SPASSKIY, S.S.; OBOLONSKAYA, N.A.; YUGIN, V.I.; GINZBURG, S.B.; TAGIL'TSEVA, Ye.S.

Plasticizers for nitrile rubbers based on polymester resins. Trudy Inst. khim. UFAN SSSR no.3:33-42 '59. (MIRA 14:3)
(Plasticizers) (Rubber, Synthetic)

L 27786-65 EWT(m)/EPA(s)-2/EPF(c)/T/EWP(j)/EPR/EWA(c) Pc-4/Pr-4/Ps-4/Pt-10
WW/RM
ACCESSION NR: AP5004308 S/0191/65/000/002/0013/0015

44
B

AUTHOR: Spasskiy, S. S.; Kodolov, V. I.; Kopylov, A. I.; Obolonskaya, N. A.; Tarasov, A. I.

TITLE: The synthesis of polyethyleneglycol-fumarate-phenylphosphinate and its copolymerization with vinyl monomers

SOURCE: Plasticheskiye massy, no. 2, 1965, 13-15

TOPIC TAGS: polyethyleneglycol synthesis, polyfumarate synthesis, polyphenylphosphinate synthesis, vinyl copolymer, phosphorylated polymer, styrene copolymer, methyl methacrylate copolymer, unsaturated polyester

ABSTRACT: Phosphorus-containing, unsaturated, hetero-chain polymers were prepared and copolymerized with styrene, or with a mixture of styrene and methyl methacrylate to obtain stable, solid and non-combustible resins. Diethylphenylphosphinate was prepared by Gefter's method (Fosforoorganicheskiye monomery i polymery, Izd. AN SSSR, 1960) and polyethyleneglycol fumarate was obtained by melt condensation of maleic anhydride with ethyleneglycol (1:3) for 2 hrs. at 120C and subsequently at 180C to an acid number of 1-3 mg KOH/g, removing excess glycol under 10 mm Hg pres-

Card 1/2

L 27786-65
ACCESSION NR: AP5004308

sure. The product contained 9-10% hydroxyl groups and was reesterified with an equivalent amount of diethylphenylphosphinate under nitrogen, 6 hrs. at 160C and 18-25 hrs. at 180C. Removal of low-molecular compounds at 180C and 5 mm Hg gave unsaturated polyesters of 80-85 acid number, negligible hydroxyl content, 400-500 molecular weight, and 7% phosphorus content. The ester was polymerized in metal forms with styrene and 0.2-0.5% bis-tert.-butyl peroxide or 0.2% benzoyl peroxide for 8-10 hrs. at 80C and 12 hrs. at 100C, or with a mixture of styrene-methyl methacrylate and 0.2% benzoyl peroxide for 15-20 hrs. at 100C. Analysis of the products of reesterification indicated that polymerization does not occur during this process and that only one ethoxy group of the phenylphosphinate is replaced by low molecular polyfumarate. Formulas for the mixture of polyesters are proposed. Copolymers of 80 and 70% polyester, 10 and 15% styrene, and 10 and 15% methyl methacrylate had densities of 1.28 and 1.3 g/cc, they adsorbed 0.37 and 0.25% water, had impact strengths of 20-25 and 15 kg.cm/cm^2 and a weight loss of 6 and 10% at 200C in 24 hrs., and were self-extinguishing with a weight loss of 5 and 9%, respectively. Elongation under load increased rapidly at 250-300C. Orig. art. has: 4 tables, 1 figure, and 5 formulas.

ASSOCIATION: None

SUBMITTED: 00 ENCL: 00 SUB CODE: OC

NO REF SOV: 007 OTHER: 000

Card 2/2

OBOLONSKIY, A.P. [Obolons'kyi, O.P.]; DEKHTYARENKO, P.I.

Transistorized low-power servosystem. Avtomatyka no.3:38-45 '60.
(MIRA 13:10)

1. Institut elektrotekhniki AN USSR.
(Servomechanisms)

OBOLONSKIY, A.P. [Obolons'kyi, O.P.]

Problems concerning the use of power transistors. Avtomatyka no. 5:60-65 '60. (MIRA 14:4)

1. Institut elektrotekhniki AN USSR, Kiyev.
(Transistor amplifiers)

OBOLONSKIY, A.P., [Obolons'kyi, O.P.] (Kiyev)

Boiler furnace as an object of optimalizing control. Avtomatyka no.3:56-63 '61. (MIRA 14:6)

1. Rabota vypolnena v laboratorii avtomaticheskogo regulirovaniya Instituta elektrotekhniki AN USSR.
(Furnaces)
(Automatic control)

L 44811-65 EPA(s)-2/EWT(m)/EWP(v)/T/EWP(t)/EWP(k)/EWP(b)/EWA(c) Pf-4
ACCESSION NR: AP5010176 JD/HM UR/0125/65/000/004/0023/0027

AUTHOR: Podola, N. V. (Candidate of technical sciences); Galan, V. I. (Engineer); Obolonskiy, A. P. (Engineer); Lokshin, V. Ye. (Engineer)

TITLE: Stabilization of electron-beam welding parameters

SOURCE: Avtomaticheskaya svarka, no. 4, 1965, 23-27

TOPIC TAGS: electron beam welding, welding parameter, parameter stabilization, accelerating voltage stabilizer, beam current stabilizer, weldment quality

ABSTRACT: The effect of the parameters of electron-beam welding on the quality and reproducibility of welded joints has been investigated at the Electric Welding Institute. The depth of fusion was reproduced with an accuracy of about 20% in experimental welding at an accelerating voltage of 25 kv, a current of 240 mamp, and a welding speed of 30 m/hr. Subsequent experiments were made with stabilizers of accelerating voltage and beam current the prototypes of which were developed at the Institute. Results of the experiments showed that stabilization of the accelerating voltage, the focusing lens current, and the beam current at the weld spot with an accuracy of 0.5, 0.1, and 0.5%, respectively, ensured an accuracy of at least 5% in the reproducibility of the main dimensions of the weld. On the basis of the obtained data, the stabilizers for accelerating voltage and the beam current were

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L 44811-65
ACCESSION NR: AP5010176

designed and built at the Institute. The accelerating voltage stability of the power source is 0.5% as the load current changes from 0 to 500 mamp and the feed voltage varies from -10 to +5%. At a feed voltage drop of -10% and a beam current of 200 and 500 mamp, the accelerating voltage recovery time is 0.05 and 0.15 sec, respectively. In field welding of 30-mm steel at a speed of 30 m/hr, an accelerating voltage of 25 kv, a current of 200 mamp, and a depth of fusion of 16 mm, the 10% drop in the feed voltage had no effect on the depth of fusion or the weld shape. The beam current stabilizer has a 10—500 mamp stabilization range and an accuracy of o.5%. Orig. art. has: 6 figures. [MS]

ASSOCIATION: Institut elektrosvarki im. Ye. O. Patona AN UkrSSR (Electric Welding Institut, AN UkrSSR)

SUBMITTED: 24Sep64 ENCL: 00 SUB CODE: IE

NO REF SOV: 002 OTHER: 001 ATD PRESS: 3257

mob

Card 2/2

OBOLONSKIY, M., inzh. (Khar'kov)

A textbook on organizing streetcar and trolley-bus transportation.
Zhil.-kom. khoz. 8 no.12:28 '58. (MIRA 13:1)
(Streetcars) (Trolley buses)

KIREY, P.I. (stantsiya Moskalenki); KONDAKOV, N.P., inzh. (Novosibirsk); SHAKHBALAYEV, M.A., dorozhnyy master; OBOLONSKIY, N.P., inzh.; BARTASH, V.V.; SUKHANOVA, A.M., tekhnik (stantsiya Belev); STAROVOYTENKO, S.P.

Letters to the editor. Put' i put. khoz. no.6:42-44 Je '58. (MIRA 11:6)

1. Nachal'nik putevoy mashinnoy stantsii No.22 (for Kirey). 2. Stantsiya Zenzeli Ordzhonikidzevskoy dorogi (for Shakhbalayev). 3. Stantsiya Loyga Pechorskoy dorogi (for Obolonskiy). 4. Nachal'nik izyskatel'skoy partii, stantsiya Yasinovataya (for Bartash). 5. Belevskaya distantsiya Moskovsko-Kiyevskoy dorogi (for Sukhanova). 6. Zamestitel' nachal'nika sluzhby puti Yugo-Vostochnoy dorogi, Voronezh (for Starovoytenko).

(Railroads—Maintenance and repair)

13.2000

S/102/60/000/003/005/006
C 111/ " 333

AUTHORS: Obolons'kyy, O. P., Dekhtyarenko, P. J.

TITLE: Low-Power Servosystem With Transistors

PERIODICAL: Avtomatika, 1960, No. 3, pp. 38-45

TEXT: This article gives a description of a designed low-power servosystem with transistors working on a raised frequency with an internal generator and transistors. The question is a single-channeled scheme consisting of a modulator, an amplifier, a two-phase asynchronous motor, a reducer, a potentiometer bridge and of an RC-filter. The modulator (figure 2) is a reversible two-stroke key-scheme with the two transistors P | D with a low noise level. At the output Tr_1 the rectangular impulses are smoothed by the condenser C_2.

An experimental study of the servosystem showed that the most effective evaluation of the servosystem, trued up to transient responses with extremely little overcorrection is the servo error. The servo errors of the system with transistors do not exeed those of similar systems with electronic tubes within an ambient temperature range of + 60°C to - 25°C.

Card 1/3

8428

S/102/60/000/003/005/006
C 111/ C 333

Low-Power Servosystem With Transistors

There are 6 figures, 1 table, and 7 references: 5 Soviet and 2 American.

ASSOCIATION: Instytut elektrotekhniki AN URSR (Institute of Electrical Engineering AS Ukr SSR)

SUBMITTED: March 2, 1960

Card 2/3

Low-Power Servosystem With Transistors

84284

C/102/60/000/003/[illegible]/006

C 111/ C 333

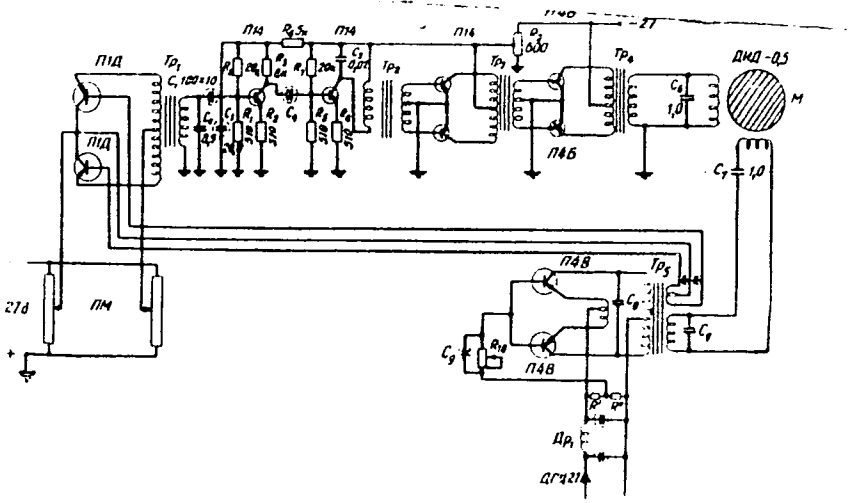


Рис. 2. Принципіальна схема слідкуючої системи.

Card 3/3

B/102/60/000/005/004/004
D251/D305

16.8000

AUTHOR: Obolons'kyy, O. P. (Kiyev)

TITLE: Some questions of the use of power semicond. tr. triodes

PERIODICAL: Avtomatyka, no. 5, 1960, 60-65

TEXT: The author states that although power amplifiers on crystalline triodes have many advantages, they have certain faults. A method of eliminating the faults and employing power triodes in the convertors for the feed of automatic control systems of high frequency is discussed. On the basis of the work of O. A. Artyukhova V. Ya. Vaksenburg, L. A. Petrov, Ye S. Saltikova and M.M. Samoylov (Ref. 1: "Sovetskoye radio", no. 2, 1957) the error arising in the use of a D-regime is considered. Improved circuits are given, including a scheme for shaping impulses of collector stress. Use of a raised frequency generator is considered (up to 1000 c/s for the feed of the system. This reduces the dimensions of the apparatus considerably. Circuit diagrams and details of the valves

Card 1/2

employed are given. There are 5 figures and 5 references: 4 Soviet bloc and 1 non-Soviet-bloc. The reference to the English-language publication reads as follows: R. L. Bright, Junction Transistors used as Switches, Trans. AIEE, 1955, v. 74, p. 1 pp. [illegible].

ASSOCIATION: Instytut elektrotekhniky AN URSR (Electrotechnical Institute of the AS UkrSSR)

SUBMITTED: March [illegible] 1960

Card 2/2

OBOLONSKIY, S.N.

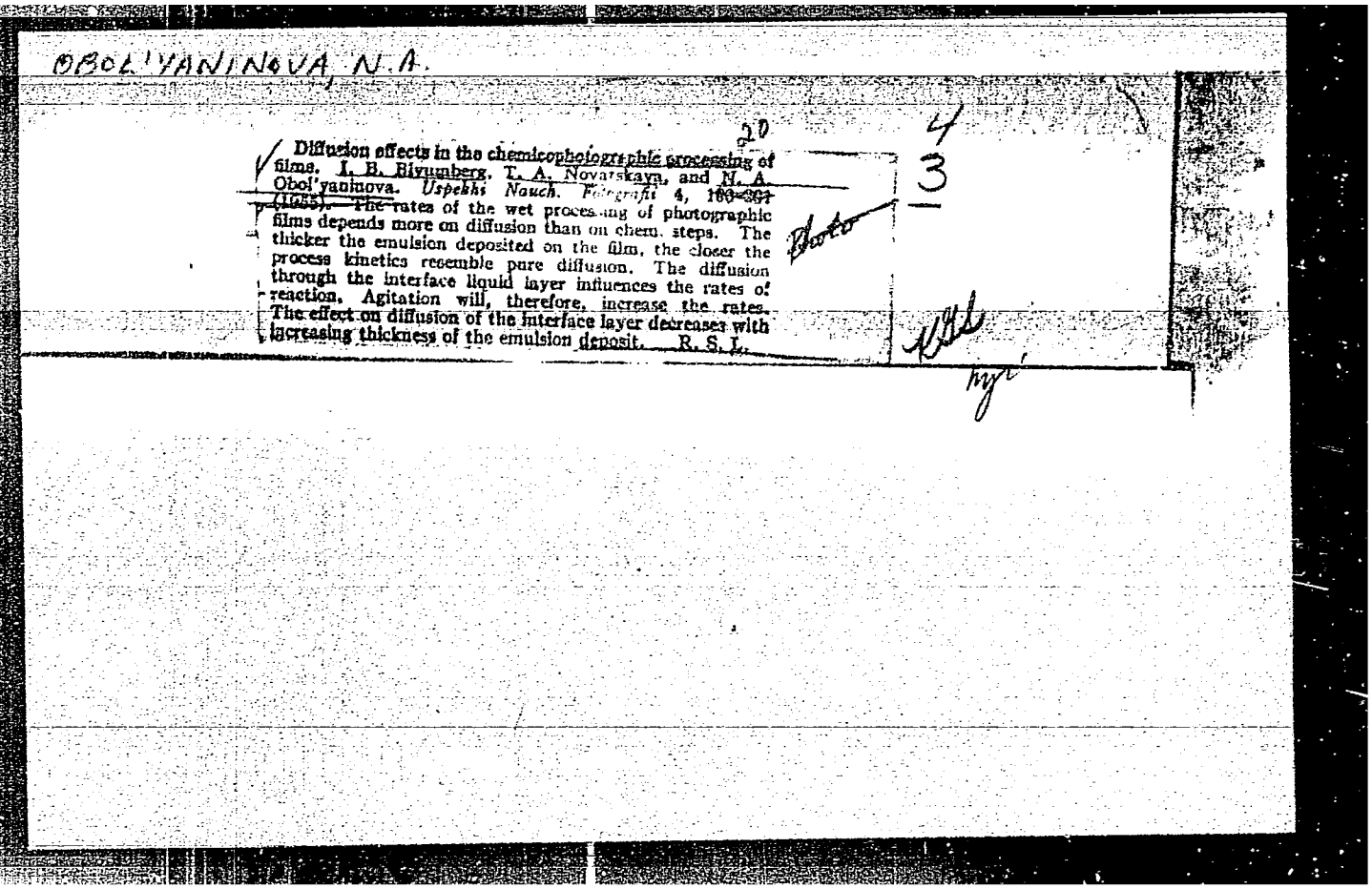
Eliminate shortcomings of mortar mixing machines. Transp. stroi. 11 no.2:61-62 F '61. (MIRA 14:2)

1. Instruktor peredovykh metodov truda Tashkentskoy mashino-ispytatel'skoy stantsii Orgtransstroya.
(Mixing machinery)

OBOL'[illegible]IKOVA, e.A.; DA[illegible], [illegible]; [illegible], [illegible]; [illegible] I.Ye.;
Y[illegible]OTOVSKIY, M. TS.; [illegible], [illegible]

Synthetic stud[illegible] of [illegible] [illegible]. Part [illegible] of 4-methyl-4-nonene-1- [illegible] according to the Wittig rea[illegible]. [illegible] ob. khim. [illegible]-39[illegible] D '64 (MIRA 18:1)

1. [illegible] [illegible] [illegible].



OBOL'YANINOVA, N.A.

20

Diffusion effects in the chemicophotographic processing of films. I. B. Bivumberg, T. A. Novarskaya, and N. A. Obol'yaninova. *Uspekhi Nauch. Fotografii* 4, 100-307 (1955). The rates of the wet processing of photographic films depends more on diffusion than on chem. steps. The thicker the emulsion deposited on the film, the closer the process kinetics resemble pure diffusion. The diffusion through the interface liquid layer influences the rates of reaction. Agitation will, therefore, increase the rates. The effect on diffusion of the interface layer decreases with increasing thickness of the emulsion deposit. R. S. L.

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3
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Photo

BLYUMBERG, I.B.; NOVATSKAYA, T.A.; OBOL'YANINOVA, N.A.

Determining the coefficient of diffusion of electrolytes in gelatin gels. Trudy LIKI no. 5:200-209 '59. (MIRA 13:12)

1. Kafedra obshchey fotografii i tekhnologii obrabotki plenki Leningradskogo instituta kinoinzhenerov.
(Photographic emulsions) (Diffusion)

39635

S/191/62/000/006/001/013
B124/B180

15.6.10

AUTHORS: Kirillova, L. I., Matveyeva, Ye. A., Zavitayeva, L. D., Fratkina, L. P., Opol'yanikova, N. A.

TITLE: Aging of polystyrene plastics. Thermal aging of styrene - acrylonitrile copolymers

PERIODICAL: Plasticheskiye massy, no. 6, 1962, 5-10

TEXT: Thermal aging of styrene - acrylonitrile copolymers (SN-10 (10.8% acrylonitrile groups), SN-20 (SN-20) (20.1% and 21.2% acrylonitrile groups, molecular weight 113,000 and 11[illegible],000), and also [illegible] (19.5%, 20.9, and 27.7% acrylonitrile groups, molecular weight 130,000, 130,000, and 13[illegible],000) was investigated on films 50-100 μ thick between 140 and 160°C, and compared with that of polystyrene films. For the copolymers, dichloro ethane was used as solvent and petroleum ether as precipitant, with benzene and ethyl alcohol for the polystyrene. The molecular weights were calculated from the viscosimetric data of Ye. A. Veselovskaya. The degree of aging was estimated on the basis of the measured intrinsic viscosity, the nitrogen content, and the carbonyl group

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S/191/62/000/008/001/003
B144/B180

ging of polystyrene plastics. ...

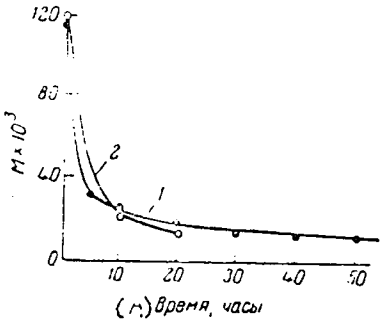
formation determined by absorption spectrometry. The rate of formation of oxygen-containing groups falls as the acrylonitrile content in the copolymer rises, and also with its molecular weight (Fig. 6). It is 2-3 times greater in polystyrene than in the SN-15 copolymer. Azomethines with one OH group were effective stabilizers in ortho- and para-position in aniline and one NH_2 group in para-position only. Azomethine obtained by introducing the group $(CH_3)_2N$ in benzaldehyde proved to be inefficient while the same compound with one OH group in aniline was highly effective. Azomethines based on salicyl aldehyde and hydroxy aniline are also good stabilizers. All azomethines discolor the product and are only recommended for black products. Effective alkyl phenols are phenyl cresylol propane, phenyl isopropyl resorcin, phenyl isopropyl pyrocatechin, 3-methyl-4-phenyl ethyl-6-isopropyl phenol, 3-methyl-4-phenyl isopropyl-6-isopropyl phenol, butyl gallate, bis-2-tert-butyl-4-methyl phenol methane. Extension of the carbon chain between the benzene rings does not greatly affect the stabilizing effect while the latter is increased by introducing a CH_3 group in the benzene ring in the case of dimethyl phenyl-p-cresol and dicresylol propane. There are 11 figures

Card 2/3

S/[illegible]/[illegible]/[illegible]/[illegible]/[illegible]/[illegible]
aging of polystyrene plastics. ... B124, B180

and 5 tables. The three English-language references are: S. L. Madorsky, S. Straus, Ind. Eng. Chem. 40, 548 (1948); N. N. S. Lilinek, J. Polymer Sci. 3, 850 (1948); 4, No. 1 (1949); M. S. Kozina, N. Tayon, B. S. Gokhammer, J. Res. Nat. Bur. Stand. 51, No. 5, 193 (1953).

Fig. 5. Change of molecular weight in thermal aging: (1) SK-2c; (2) SK-2b.
Legend: (a) time, hrs.



Card 3/3

BROYTMAN, A.Ya.; LAZAREVA, N.P.; OBOL'YANINOVA, N.A., POPOVA, G.S.

Relation between the structure, stabilizing action, and toxicity of the condensation products of phenol with styrene. Plast.massy no.4:19-22 '63. (MIRA 16:4)

(Phenol condensation products) (Styrene)

OBOL'YANINOVA, N.A.

S/191/63/000/004/009/015
B101/B186

AUTHORS: Lazareva, N. P., Obol'yaninova, N. A., Popova, G. S.

TITLE: Study of the stabilizing effect due to alkyl and aryl-alkyl phenols

PERIODICAL: Plasticheskiye massy, no. 4, 1963, 44 - 46

TEXT: Alkyl derivatives of p-cresol were synthesized by alkylation of p-cresol with aliphatic alcohols in the presence of orthophosphoric acid as catalyst. Aryl-alkyl phenols were synthesized by reaction between phenols and styrene in the presence of sulfuric acid. The stabilizing effect of a 0.5% addition of these compounds on the ageing of high-density polyethylene was studied by rolling at 140°C and by determining the elongation E, %, and tan δ at 10^6 cps. The initial data for polyethylene were E = 478%, tan δ = 0.0009. After a rolling test of 4 hrs the data for E and tan δ were as follows: without additive 98, 0.0107; with 2-n-butyl-p-cresol 250, -; n-nonyl-p-cresol 165,-; 2-tert-butyl-p-cresol 207, 0.0018; 1-(α-phenyl-ethyl)-p-cresol 344, -; 2,6-di-tert-butyl-p-cresol (ionol) 332, 0.0029; 2-(α-phenyl-ethyl)-6-n-butyl-p-cresol 346, 0.0007; 2-(α-phenyl-ethyl)-6-

Card 1/2

S/191/65/000/00[illegible]/009/015
B101/B186

Study of the stabilizing effect...

tert-butyl-p-cresol 458, 0.0013; 150 - 188°C/3 mm Hg fraction of the reaction between phenol and styrene 400, 0.0015; 220 - 230°C/3 mm Hg fraction 410, 0.0015; 244 - 250°C/3 mm Hg fraction 438, 0.0015; 260 - 280°C/3 mm Hg fraction 446, 0.0014; dicresylol propane 500, 0.0006; 2,2-bis-(4-methyl-6-tert-butyl phenylol)-methane 452, 0.0006; conversion product of dicresylol propane 390, 0.0008. The phenyl-ethyl group in ortho position was found to have a highly stabilizing effect. The formation of an intramolecular H bond between the hydroxyl group and the π electrons of the benzene ring were assumed to cause the stabilizing effect, since compounds containing this group show a 3530 - 3550 cm^{-1} band in the IR spectrum. The occurrence of a 3500 cm^{-1} band in dicresylol propane heated to 140 - 150°C also suggests a structural change and formation of an intramolecular H bond which explains the stabilizing effect of this compound. There are 3 figures and 2 tables.

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ACCESSION NR: AP4012190 S/0191/64/000/002/0037/0039

AUTHORS: Matveyeva, Ye. N.; Kirpichnikov, P. A.; Kremen', M. Z.; Obol'yaninova, N. A.; Lazareva, N. P.; Popova, L. M.

TITLE: Alkylaryl esters of pyrocatechin phosphorous acid - new stabilizers of polymers

SOURCE: Plasticheskiye massy*, no. 2, 1964, 37-39

TOPIC TAGS: pyrocatechin phosphorous acid, stabilizer, polymer, 4-(α-phenyl ethyl)-2-hydroxy phenyl dibutyl phosphite, 4-(α-phenyl ethyl)-1.2-phenylene phenyl phosphite, heat stabilizer, polyolefin, aging

ABSTRACT: Esters 4-(α-phenyl ethyl)-2-hydroxy phenyl dibutyl phosphite and 4-(α-phenyl ethyl)-1.2-phenylene phenyl phosphite were difficult to extract in pure form and were studied as stabilizers in a technical form. The effectiveness of alkylaryl esters of pyrocatechin phosphorous acid as heat stabilizers of polyolefins (polyethylene of low and high pressure and copolymer of ethylene with propylene) was evaluated as to rate of "aging" of unstabilized and

Card 1/2

ACCESSION NR: AP4012190

stabilized polymers. Many aromatic esters of pyrocatechin phosphorous acid are found to be effective thermostabilizers of high and low pressure polyethylene and the copolymer of ethylene with propylene. Physico-mechanical and dielectric properties of the polyolefins were also studied as a function of the heat-aging process. Orig. art. has: 1 Table

ASSOCIATION: None

SUBMITTED: 00 DATE ACQ: 26Feb64 ENCL: 00

SUB CODE: CH, MA NR REF SOV: 004 OTHER: 018

Card 2/2

OBONITSKAYA, O. V.

OBONITSKAYA, O. V. -- "The Dynamics of the Unconditioned Vasodilatory Reflex with Repeated Stimuli as a Function of Certain Internal and External Factors." Khar'kov Medical Inst. Khar'kov, 1955. (Dissertation for the Degree of Candidate of Medical Sciences.)

SO: Knizhnaya letopis', No. 4, Moscow, 1956

KIZIMOV, N.A.; OBONITSKAYA, O.V.; SERDYUK, Ye.Ye.; TRANKVILITATI, N.N.; FEL'DMAN, A.B.

Relationship between the magnitude of a safe electric current and the length of its action on the organism. Trudy MakNII 14. Vop. gor. elektromekh. no.5:68-87 '62. (MIRA 16:6)
(Electricity in mining—Safety measures)
(Electricity, Injuries from)

OBONITSKAYA, Ye.K.

Spore-pollen complexes and their significance for the distribution of cretaceous sediments in the central Kyzyl Kum and Southern Ural Mountain region. Izv. AN SSSR Ser. Geol. 29 no.3: 94-100 Mr '64 (MIRA 17:3)

1. Geologicheskiy institut AN SSSR, Moskva.

OBONITSKAYA, Ye.K.

Spores of the new form genus Acritosporites from Upper Cretaceous deposits of central Kyzylkum and the southern part of the Aral Sea region. Paleont. zhur. no.2:121-124 '64.
(MIRA 17:7)

1. Geologicheskiy institut AN SSSR.

HRSTKA, V.; OBONOVA, L.

On the problem of the utilization of oral antidiabetics. Cesk. fysiol. 8 no.4:332 July 59.

1. Vyzkumny ustav vyzivy lidu, Bratislava.
(ANTIDIABETICS, pharmacol.)

OBOR, P., inzhener-arkhitektor; GLYAZER, S., master sporta SSSR

Sports City. IUn.tekh. 5 no.7:34-39 Jl '61. (MIRA 15:1)
(Play grounds)

KRAYZMER, Leonid Pavlovich. Prinimali uchastiye: CHERVINSKIY, M.M.; OBO-RENKO, A.Ye., SHILEYKO, R.I.; ZAYEZDNYY, A.M., retsenzent; UL'YANOV, G.K., red.; SOBOLEVA, Ye.M., tekhn. red.

[Discrete information storage devices] Ustroistva khraneniia diskretnoi informatsii. Moskva, Gos.energ.izd-vo, 1961. 359 p. (MIRA 14:12)
(Magnetic memory (Calculating machines))
(Pulse techniques (Electronics))

JANOVSKY, J.; OBORIL, L.

Metastasis of embryonal teratoma of the testis in a 3-year-old boy as a cause of paralytic ileus. Cesk. pediat. 18 no.2:155-156 F '63.

1. Chirurgicke oddeleni OUNZ v Popradu, prednosta MUDr. J. Janovsky.
(TESTICULAR NEOPLASMS) (INTESTINAL OBSTRUCTION)
(TERATOID TUMOR) (NEOPLASM METASTASIS)

OBORIN, A.A.

Hydrochemistry of underground waters in the southern Balkhash region. Sov.geol. 2 no.7:117-122 Jl '59. (MIRA 13:1)

1. Kunguraskaya geologorazvedochnaya partiya Permskogo geologorazvedochnogo tresta.
(Balkhash region--Water, Underground)

ZALKIND, I. E., (Perm'); OBORIN, A. A. (Perm'); SHESTOV, I. N. (Perm')

Healing springs in the cis-Ural region. Priroda 52 no.1: 117-118 '63. (MIRA 16:1)

(Cherdyn' District—Mineral waters)

OBORIN, A.A.

Facies of terrigenous spits in Kungurian halogen sediments of the cis-Ural trough in the area of the Shumkovo salt deposit. Dokl. AN SSSR 151 no.3:659-662 Jl '63. (MIRA 16:9)

1. Predstavleno akademikom N.M.Strakhovym.
(Shumkovo region (Perm Province)--Geology, Stratigraphic)

OBORIN, A.A.

Char cteristics of the sedimentation of Kungurian sediments in the Ufa-Solikamsk Depression of the cis-Ural depression. Lit. i pol. iskop. no.3 43-52 My-Je '64. (MIRA 17:11)

.. Kamskiy filial Vsesoyuznogo nauchno-issledovatel'skogo geologo-razvedochnogo neftyanogo instituta, Perm'.

ZALKIND, I.E.; OBORIN, A.A.

Natural sulfur in the Lower Permian sediments of the middle cis-Ural region. Lit. i pol. iskop. no.3:157-158 My-Je '64. (MIRA 17:11)

1. Kamskiy filial Vsesoyuznogo nauchno-issledovatel'skogo geologorazvedochnogo neftyanogo instituta (VNIGRI).

SHESTOV, I.N.; OBORIN, A.A.

Prospects for finding native sulfur on the territory of Perm Province. Sov. geol. 8 no.2:138-140 F '65. (MIRA 18:12)

1. Kamskiy filial Vsesoyuznogo nauchno-issledovatel'skogo geologorazvedochnogo neftyanogo instituta.

OBORIN, A.A.

Terrigenous bars in the Lower Permian sediments of the cis-Ural Trough. Izv. vys. uchob. zav.; geol. i razv. 8 no. 12:144-145 D '65 (MIRA 19:1)

1. Vsesoyuznyy nauchno-issledovatel'skiy geologorazvedochnyy neftyanoy institut, Kamskiy filial.

1ST AND 2ND CODERS

PROCESSES AND PROPERTIES INDEX

3RD AND 4TH CODERS

Contributions of a group investigation of solonets and its amelioration. P. A. Henkel, A. I. Ubarin, (?) A. Glumov, B. M. Ihalai and S. S. Kolotova. Trav. inst. recherches biol. Perm 7, No. 1-2, 1-130(in English 130-41) (1935).—A collection of papers by the authors, alone or in collaboration with each other, dealing with the problem of solonets and its amelioration under the following headings: (1) A general description of the area, its climate and soil, for the latter giving some physical and chemical data. (2) Vegetation cover. (3) Field expts., primarily on the use of $CaSO_4.2H_2O$ and acid phosphate, with some chem. data on crops grown: wheat, oats and sugar beets. (4) Greenhouse expts. where the soil of each horizon was tried for its productivity with the application of $CaSO_4.2H_2O$ and $CaCO_3$. (5) Physical properties of soil, primarily with respect to the effect of gypsum on water penetration and root distribution through the various horizons. (6) The water and salt concn. regime of the soil, with special reference to the distribution of the salts in the profile. (7) Root system of oats and wheat. (8) Moisture regime of wheat. (9) Microbiological activity in solonets. Some of the papers have English titles in the tables.

J. S. Joffe

COMMON ELEMENTS

MATERIALS INDEX

ASB-SLA METALLURGICAL LITERATURE CLASSIFICATION

OBORIN, ARKADIY IVANOVICH

IVANOV, Aleksandr Pavlovich; OBORIN, Arkadiy Ivanovich; REZNITSKIY, L.M., kandidat tekhnicheskikh nauk, redaktor; KAPLANSKIY, Ye.F., redaktor; SOKOLOVA, L.V., tekhnicheskiy redaktor

[Construction and use of annular drills] Konstruktsiia i ekspluatatsiia kol'tsevykh sverl. Moskva, Gos.nauchno-tekh. izd-vo mashinostroitel'noi lit-ry, 1955. 54 p. (MLRA 9:2)
(Drilling and boring machinery)

PHASE I BOOK EXPLOITATION SOV/5460

Leningradskiy metallicheskiy zavod. Otdel tekhnicheskoy informatsii.

Nekotoryye voprosy tekhnologii proizvodstva turbin (Certain Problems in the Manufacture of Turbines) Moscow, Mashgiz, 1960. 398 p. (Series: Its: Trudy, vyp. 7) Errata slip inserted. 2,100 copies printed.

Sponsoring Agency: RSFSR. Sovet narodnogo khozyaystva Leningradskogo ekonomicheskogo administrativnogo rayona, Upravleniye tyazhelogo mashinostroyeniya, and Leningradskiy dvazhdy ordena Lenina metallicheskiy zavod. Otdel tekhnicheskoy informatsii.

Ed. (Title page): G. A. Drobilko; Editorial Board: Resp. Ed.: G. A. Drobilko, B. A. Glebov, A. M. Mayzel', and M. Kh. Mernik; Tech. Ed.: A. I. Kontorovich; Managing Ed. for Literature on Machine-Building Technology: Ye. P. Naumov, Engineer, Leningrad Department, Mashgiz.

PURPOSE: This collection of articles is intended for technical personnel in turbine plants, institutes, planning organizations, as well as for production innovators.

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57

Certain Problems (Cont.) SOV/5460

COVERAGE: The experience of the LMZ (Leningradskiy metallicheskiy zavod - Leningrad Metalworking Plant) in the manufacture of modern large-capacity turbines is presented. Methods for the rationalization of basic manufacturing processes and for the mechanization and automation of manual operations are given. Descriptions of attachments and tools designed by LMZ for improving labor productivity and product quality are provided, and advanced inspection methods discussed. References accompany some articles. No personalities are mentioned. There are 26 references: 25 Soviet and 1 English.

TABLE OF CONTENTS:

Card 2/12

Certain Problems (Cont.)

OBORIN, A.I., kand.sel'skokhozyaystvennykh nauk

The "Predural'ye" Training and Experimental Farm (former preserve) of the Perm State University. Okhr. prir. na Urale no.1:111-114 '60. (MIRA 14:4)

(Perm Province--Agricultural experiment stations)

OBORIN, A.I., kand.sel'skokhozyaystvennykh nauk

The Troitsk Training and Experimental Forest Farm of the Perm State University (the former Troitsk Forest-Steppe Preserve). Okhr. prir. na Urale no.1:119-123 '60. (MIRA 14:4)
(Chlyabinsk Province--Agricultural experiment stations)

OBORIN, A. K.

OBORIN, A. K.: "Injuries to the thoracic cavity and their complications." Irkutsk State Medical Inst. Irkutsk, 1956. (Dissertations for the Degree of Candidate in Medical Sciences).

SO: Knizhnays Letopis' No. 22, 1956

OBORIN, A. K.; SEDOV, K. R.

Electrokymorgraphic changes in coronary atherosclerosis. Terap. Arkh. 34 no.5:49-53 '62. (MIRA 15:6)

1. Is kafedry gospital'noy terapii (zav. - dotsent K. R. Sedov) Irkutskogo meditsinskogo instituta.

(ARTERIOSCLEROSIS) (ELECTROKYMOGRAPHY)

OBORIN, A.A., dotsent

Duration of cardiac cycle phases in healthy subjects according to data of electrozymography. Kardiologiia 3 no. [illegible].

1. Iz kafedry gospital'noy terapii [illegible] gav. - [illegible] Irkutskogo meditsinskogo instituta.

OBORIN, A.K., dotsent

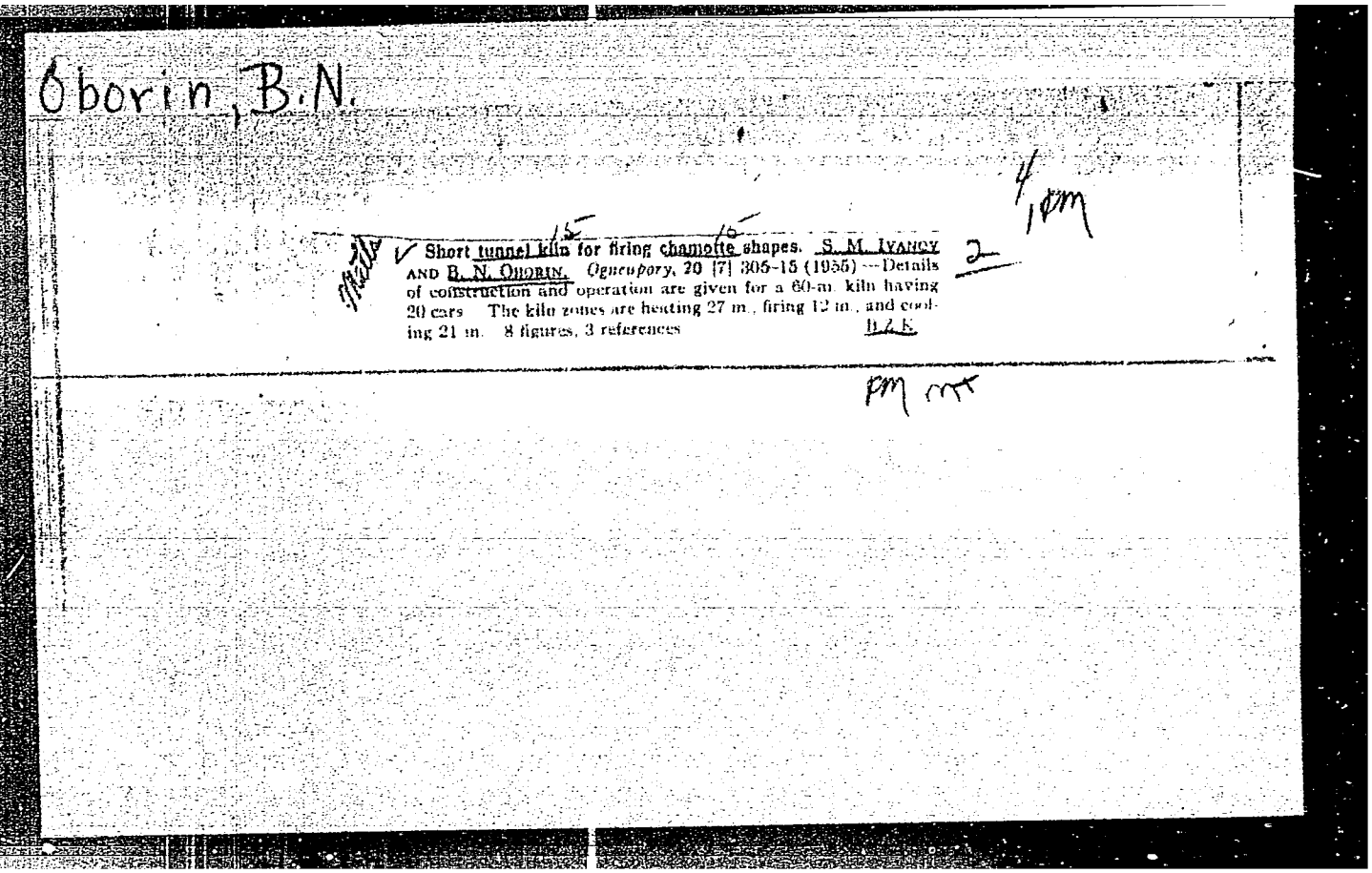
Electrokymography in the diagnosis of pericarditis. Sov. med. 28 no.7:110-112 Jl '64. (MIRA 18:8)

1. Kafedra gospital'noy terapii (zav. - dotsent K.R.Sedov) Irkutskogo meditsinskogo instituta.

LYUBIMOV, R.V.; OBORIN, B.I.; SHIRYAYEV, S.A.; DOBRIN, Z.Ye.; SHALKOV, K. A.; YAKOVLEV, A.I.

Tunnel kiln operating on liquid fuel for burning fireclay articles. Ogneupory 26 no.11:494-497 '61. (MIRA 17:2)

1. Vsesoyuznyy institut ogneuporov (for Lyubimov, Oborin, Shiryayev).
2. Borovichskiy kombinat ogneuporov (for Dobrin, Shalkov, Yakovlev).



Oborin, B.N.

Short tunnel kiln for firing chamotte shapes. S. M. Ivanov and B. N. Oborin. *Ogneupory*, 20 [7] 305–15 (1955).—Details of construction and operation are given for a 60-m. kiln having 20 cars. The kiln zones are heating 27 m., firing 12 m., and cooling 21 m. 8 figures, 3 references

124-57-1-828 D

Translation from Referativnyy zhurnal, Mekhanika, 1957, Nr 1, p 109 (USSR)

AUTHOR: Oborin, L. A.

TITLE: The Application of Semiconductive Thermistors in Instruments for the Measurement of Small Velocities in Water Flows (Primeneniye poluprovodnikovykh termochuvstvitel'nykh soprotivleniy v priborakh dlya izmereniya malykh skorostey vodnykh potokov)

ABSTRACT: Bibliographic entry on the author's dissertation for the degree of Candidate of Technical Sciences, presented to the Leningr inzh.-stroit. in-t (Leningrad Institute of Structural Engineering), Leningrad, 1956.

ASSOCIATION: Leningr inzh.-stroit. in-t (Leningrad Institute of Structural Engineering), Leningrad

1. Thermistors--Applications--bibliography 2. Water--Velocity --Measurement

Card 1/1

OBORIN, L.A.

9(4) PHASE I BOOK EXPLOITATION SOV/2773

Poluprovodnikovyye termosoprotivleniya; sbornik statey (Thermistors; Collection of Articles) Moscow, Gosenergoizdat, 1959. 229 p. 13,000 copies printed.

Ed. (Title page): B. S. Sotskov, Doctor of Technical Sciences, Professor; Ed. (Inside book): V. A. Petrov; Tech. Ed.: G. I. Matveyev; Editorial Board: B. S. Sotskov, Doctor of Technical Sciences, Professor (Chief Ed.), N. P. [illegible], Candidate of Technical Sciences, B. S. Zaytsev, Engineer, Ye. N. [illegible], Engineer, and V. I. Turkulets, Engineer.

PURPOSE: This collection of articles is intended for engineering and technical personnel of plants, OKB, NII and also instructors and students of vuzes.

COVERAGE: The book contains articles dealing with problems of manufacture of thermistors and determining thermistor parameters and characteristics. The authors also discuss problems of industrial application of thermistors as control elements. The book is an effort of cooperation by scientists of a number of vuzes, members of NII and engineers of one of the plants (name is not given) of Mosgorsovnarkhoz. No personalities are mentioned. References appear at the end of some articles.

[illegible], G. K., L. S. Panasyuk and M. M. Pinovich. UTS-1 Temperature Signalling Device 192

The authors discuss the construction of a temperature signalling device for controlling temperature of bearings of various units of power plants such as boilers, turbines, etc. He describes the principle of its operation and explains the construction of a thermistor heat detector cell. There are 3 references, all Soviet.

[illegible], L. K. Use of Thermistors for Controlling Temperature in Refrigerator Railroad Cars. 205

The author discusses the experience acquired in using MMT-1 and TMB-8 types of thermistors for remote control and measuring temperature in refrigerator railroad cars. He presents circuits used and describes their operation. There are 3 references, all Soviet (including 2 translations).

[illegible], R. V. Selection of Circuit Elements for Regulating Temperature in Networks With Thermistors on The Basis of Relay Effect 210

The author discusses methods of calculating circuits for regulating temperature in networks with thermistors on the basis of the relay effect. He also explains the concept of relay effect in some types of thermistors. There are 2 references, both Soviet.

Oborin, L. A. Use of Thermistors in Hydrometric Devices.

The author discusses a device for measuring average rate of water flow used in Leningrad water supply systems and describes methods of calculating parameters of basic units of the device. There are 6 references: 4 Soviet and 2 English.

Salgonov, L. V. Use of Thermistors in Automobile Thermometers 220

The author discusses thermistor cir... f... ...rolling temperature of automobile-engine cooling liquidused in some Western countries. There are 5 references, all Soviet (including 1 translation).

S/124/62/000/005/032/048
D251/D308

AUTHOR: Oborin, L.A.

TITLE: Thermo-sensors with semi-conductor thermal resistances for measuring velocities of aqueous currents

PERIODICAL: Referativnyy zhurnal. Mekhanika, no. 5, 1962, 133-134, abstract 5B871 (V. sb. Novyye metody izmereniy i pribory dlya gidravlich. issled., M., AN SSSR, 1961, 56 - 59)

TEXT: A principle and method are proposed for measuring velocities with the aid of semi-conductor thermal resistances. It is indicated that the best approach for velocity measurements is an indirect-heat sensor. The construction is described of a small-scale sensor based on MT-54 micro-thermal resistances, intended for measuring velocities in laboratory conditions. To measure velocities from 1 to 50 mm/sec dispersion power is recommended in the heater not more than 0.2 watts, and for velocities in the meter range of the order of 0.6 - 1.0 watts. It is shown that these two calibration curves permit the covering of the range of velocities from 1 mm/sec. to

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Thermo-sensors with semi-conductor ... S/124/62/000/005/032/048
D251/D308

2 m/sec. A construction is proposed for sensors for measuring velocities in stationary set-ups. The basis of sensors of this type is a metal corpus with thermal resistances mounted in its walls and a plane heater of high power. Such a construction permits obtaining a large difference of temperature between the walls of the sensor and the current. Experiments were carried out on the sensor with temperature differences from 60° in calm water, to 5 - 10° with the speed of flow 4 - 5 m/sec. and the dispersion power in the heater 266 watts. 4 references. [Abstractor's note: Complete translation].

Card 2/2

S/271/63/000/003/002/049
A060/A126

AUTHOR: Oborin, L.A.

TITLE: Classification and domain of operation of semiconductor temperature transducers

PERIODICAL: Referativnyy zhurnal, Avtomatika, telemekhanika i vychislitel'naya tekhnika, no. 3, 1963, 8 - 8, abstract 3A40 (In collection "Fizika", Leningrad, 1962, 68 - 72)

TEXT: The paper gives a classification of instruments based on semiconductor thermoresistors and designed to measure flow-rates (consumption) of fluid and gas flows.

V. Kh.

[Abstracter's note: Complete translation]

Card 1/1

L 47215-66 EWP(e)/EWT(m)/EWP(j)/T IJP(c) WW/RM/WH

ACC NR: AR6017568 SOURCE CODE: UR/0196/66/000/001/B014/B014

AUTHOR: Yemel'yanenko, L. D.; Oborin, L. A.; Tsvetkov, V. N.

REF SOURCE: Sb. Fizika. Dokl. k XXIII Nauchn. konferentsii Leningr. inzh.-stroit. in-ta. L., 1965, 83-86

TITLE: Investigation of certain physical properties of domestic fiber glass

SOURCE: Ref. zh. Elektrotekhnika i energetika, Abs. 1B82

TOPIC TAGS: fiber glass, temperature coefficient

TRANSLATION: Thermal, optical and acoustical properties of flat and corrugated polyester fiber glass based on PN-1 resin and ZhS-04 glass fibers are analyzed. The coefficients of heat transfer (λ) and temperature conductivity (α) for two batches of specimens (30 × 30 cm) were calculated using the V. S. Volkenshteyn method. The average values for the first batch were $\alpha=7.4\cdot10^{-8}$ m^2/sec; $\lambda=0.77$ w/m·deg, and for the second batch $\alpha=6.8\cdot10^{-8}$ m^2/sec; $\lambda=0.2$ w/m·deg. 1 figure, 2 references. V. Kostyukov.

SUB CODE: 11/ ~~SUBM DATE~~ none

UDC: 621.315.619

Card 1/1 fv

OBORIN, L.F.

Threaded pins. Stomatologiia 38 no.2:57 Ap '59. (MIRA 12:7)

1. Iz kafedry terapevticheskoy stomatologii (zav. - dotsent I. A. Meysakhovich) Permskogo meditsinskogo instituta (dir. - prof. I.I. Kositsyn).
(DENTAL INSTRUMENTS AND APPARATUS)