USSR / Farm Animals, Reindeer, U-4

Abs Jour : Ref Zhur - Biologiya, No 16, 1957, 72078

Author : Karev, G., and M.
Title : The Feeding and Pasturage of the Northern Deer.

Orig Pub : L. Sel'khogis, 1956

Abstract : No abstract

Card : 1/1 - 19 -

STROKOVA, I.; VASIL'YEVA, T.; KAREV, M.; CHECHETKINA, S.

Improve the leadership of production meetings. Sov.profsoiuzy 7 no.15:33-36 Ag '59. (MIRA 12:12)
(Works councils)

KAREV, M.

"Vacuum" is impassable. Znan.sila 35 no.7:35-36 Jl '60.
(MIRA 13:7)
(Space flight)

VOLGIN, M.; KAREV, M.

Superconductivity knocks at the doors of technology. Znan. sila 36 no. 5:23-25 My '61. (MIRA 14:5)
(Superconductivity)

L 42115-66 EWP(e)/EWT(m)/EWP(j)/T IJP(c) WW/DJ/RM/WH

ACC NR: AP6022191 SOURCE CODE: UR/0026/66/000/006/0025/0032

AUTHOR: Vladimirov, S. V. (Moscow); Karev, M. A. (Moscow)

ORG: none

TITIE: Planned synthesis of heat-resistant polymers

SOURCE: Priroda, no. 6, 1966, 25-32

TOPIC TAGS: heat resistant plastic, polytetrafluoroethylene, polyarylate, karbin, heat resistance, thermal stability, polymer cross linking, polymer chemistry

ABSTRACT: The Directives of the 23rd Congress of the CPSU stressed the need for further development of new economical chemical processes for obtaining technically usable materials. In connection with this, some methods have been developed for obtaining polymers with high mechanical strength, thermal stability, heat resistance, and long wear life. The ever increasing demand for replacing metals with plastics requires improved properties of plastic materials.

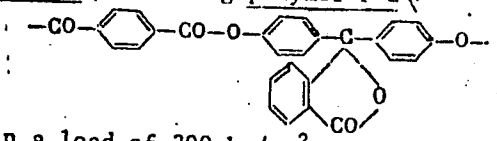
The heat resistance of polymers, usually understood as their softening or melting temperature under atmospheric pressure, can be grouped into eight classes. The first class represents materials whose softening temperature is below 200C. Some polymers of the eighth class have a heat resistance around 550C. These temperatures, however, do not coincide with

Card 1/3 UDC: 678.7

the softening or melting temperatures of the polymers under load: fourteen of eighteen materials studied under load cannot be used even at 150C, and nine of them fail at 120C. Therefore, the attention of the polymer chemist is presently focussed on surmounting the 200C barrier in heat resistance.

Efforts toward this end are in the form of planned research in which factors increasing the heat resistance are considered in outlining the composition and structure of polymers to be synthesized. A "heat resistance chart" for planned research was drawn up at the Institute of Heteroorganic Compounds in a laboratory directed by V. V. Korshak, Corresponding Member, AS USSR. He and his associates have distinguished three main factors which determine the heat resistance of synthetic materials. The first is the reciprocal adhesion of polymer chains. This adhesion is increased by the introduction of polar groups, such as fluoro, carboxy, cyano, etc., or by the formation of bridges between the chains, so-called cross-linking, as in the curing of rubber with sulfur, or by irradiation with ionizing radiation. This factor can be overcome by the effect of supramolecular structures. Excessive cross-linking, which increases the heat resistance, decreases the elasticity of polymers. The second factor is the regularity of the structure, e.g., isotactic polymers are more heat resistant than atactic polymers; linear polymers can be more closely packed than branched ones. The third factor is the composition and structure of

the repeat units. Here, e.g., fluoro substituted polymers are much more heat resistant and thermostable (chemical resistance to oxidation at elevated temperatures) than chloro substituted polymers, as the example of polytetrafluoroethylene and poly(vinylchloride) indicates. During their planned research, V. V. Korshak and S. V. Vinogradova synthesized a series of polyarylates, including polymer F-2



which can sustain a load of 300 kg/cm^2 at 230C. Another heat resistant polymer prepared at the laboratory of V. V. Korshak, is "karbin" — a dihydrogenated polyacetylene, which is not destroyed at 230C:

$$-C\equiv C-C\equiv C-C\equiv C-.$$

Graphytized viscous rayon fibers are obtained at 2700 to 2900C. Graphite fibers can be used for aerospace purposes: nozzles, high temperature insulation, hot gas filters.

The examples given indicate that the 200C barrier has been surmounted. It is hoped that refractory polymers can be obtained in the future. Orig. art. has: 6 figures and 1 table. [ATD PRESS: 5030-F]

SUB CODE: 11, 20, 07 / SUBM DATE: none / ORIG REF: 001 / OTH REF: 678.7

USTINOV, A.M.; KAREV, N.A.

Method of calculating the economic efficiency of improving mine ventilation. Nauch. trudy KNIUI no.16:163-167 '64. (MIRA 18:7)

USTINOV, A.M.; KAREV, N.A.; OSPANOV, G.Zh.

Practice in using skip shafts for mine ventilation. Nauch. trudy KNIUI no.16:168-179 '64. (MIRA 18:7)

KAREV, N.A.; KARASEV, G.K.

Liberation of methane at the Bestyube gold mining deposit in Kazakhstan.
Nauch. trudy KNIUI no.16:228-239 '64. (MIRA 18:7)

KAREV, N. B., Cand Tech Sci -- (diss) "Study of the influence of several factors on air charge movement in a diesel with an undivided combustion chamber." Moscow, 1960. 26 pp; (Ministry of Higher and Secondary Specialist Education RSFSR, Moscow Inst of Automobiles and Highways); 160 copies; price not given; (KL, 30-60, 138)

KAREV, N.B., inzh.

Effect of a directed air flow on the the combustion process in a diesel engine with an undivided combustion chamber. Trudy MADI no.25:170-177 '60. (MIRA 13:10)

(Diesel engines)

KAREV, Nikolay Ivanovich; KOROTKOVA, L., red. izd-va; TELEGINA, T., tekhn. red.

[Analysis of the economic activity of enterprises of the meat industry] Analiz khoziaistvennoi deiatel'nosti predpriiatii miasnoi promyshlennosti. Moskva, Gosfinizdat, 1962. 46 p. (MIRA 15:6)

(Meat industry)

USPENSKIY, V.P., inzh. (Leningrad); KAREV, N.V., inzh. (Leningrad); DMITRIYEVSKIY, N.V., inzh. (Leningrad); SERGEYEV, A.I., inzh. (Leningrad)

Automatic digging of drainage trenches with given bed inclination. Gidr.i mel. 14 no.3:33-45 Mr '62. (MIRA 15:4)
(Drainage) (Excavating machinery)

USPENSKIY, V.P.; KAREV, N.V.; SERGEYEV, A.I.

Multibucket trench excavator. Gor. zhur. no.9:56 S '62.
(MIRA 15:9)

(Excavating machinery) (Automatic control)

KAREV, P.A.

Substituting practical work for school work. Geod. i kart. no. 3:62-64 Mr '64. (MIRA 17:9)

KAREV, P.A.

Experimental measurements with a VRD tellurometer. Geod. i kart. no.2:14-18 F '64. (MIRA 17:3)

KAREV, S.S., inzh.; FOKHT, L.G., inzh.

New mobile crane to be used in constructing buildings of few stories. Mekh. stroi. 15 no.4:24-26 Ap '58. (MIRA 11:5)
(Cranes, derricks, etc.)

KAREV, V.A., Lt. Col., Vet. Service; ZHEREBTSOV, I .D., Capt. Vet. Service
"The Influence of penicillin on the morphobiochemical properties of clinically healthy horses."
SO: Vet. 24 (7) 1947, p. 22

KAREV, V.A. (Khar'kov)

Anaphylaxis reaction with desensitization as a method for detecting growth characteristics of the animal tissue; preliminary report. Biul.eksp.biol.i med. 38 no.8:56-60 Ag '54. (MLRA 7:9)

(ALLERGY,
anaphylaxis & desensitization as method of detection of age of animal tissue)

(GROWTH,
anaphylaxis & desensitization as method of detection of age of animal tissue)

KAREV, V.A.

Antigenic characteristics of lipoid-polysaccharide complexes from tissues of old animals. Biul. eksp. biol. i med. 51 no.4:86-91 Ap '61. (MIRA 14:8)

1. Iz kafedry biokhimii (zav. - chlen Akademii nauk USSR I.N.Bulankin [deceased]) Khar'kovskogo universiteta i kafedry mikrobiologii (zav. chlen Akademii sel'skokhozyaystvennykh nauk USSR M.V. Revo) Khar'kovskogo veterinarnogo instituta. Predstavlena deystvitel'nym chlenom AMN SSSR N.N.Zhukovym-Verezhnikovym.

(ANTIGENS AND ANTIBODIES) (AGING)
(POLYSACCHARIDES) (LIPIDS)

KAREV, V.A.

Age-related antigenic characteristics in tissues of old animals. Biul. eksp. biol. i med. 52 no.10:85-89 O '61. (MIRA 15:1)

1. Iz nauchno-issledovatel'skogo instituta biologii (dir. - prof. V.N.Nikitin) Khar'kovskogo universiteta i laboratorii immunologii embriogeneza (zav. - kandidat med.nauk O.Ye. Vyazov) Instituta eksperimental'noy biologii (dir. - prof. I.N.Mayskiy) AMN SSSR, Moskva. Predstavlena deystvitel'nym chlenom AMN SSSR N.N. Zhukovym-Verezhnikovym.
(AGING) (ANTIGENS AND ANTIBODIES)

L 45561-66 EWT(m)/EWP(t)/ETI IJP(c) JD/WW/JW

ACC NR: AP6025464 SOURCE CODE: UR/0080/66/039/007/1642/1644

AUTHOR: Baranov, A. V.; Karev, V. G.

ORG: Siberian Institute of Technology (Sibirskiy tekhnologicheskiy institut)

TITLE: Concentrating nitric acid by means of an aqueous solution of zinc nitrate

SOURCE: Zhurnal prikladnoy khimii, v. 39, no. 7, 1966, 1642-1644

TOPIC TAGS: nitric acid, zinc compound, phase diagram, magnesium compound, solution concentration

ABSTRACT: Phase diagrams of the HNO_3-H_2O-$Zn(NO_3)_2$ and HNO_3-H_2O-$Mg(NO_3)_2$ were studied at 760 mm Hg in an attempt to develop a new method of concentrating nitric acid. It was found that the 73% zinc nitrate solution begins to crystallize at 112°C while the 83% magnesium nitrate solution crystallizes at 54°C. The 73% zinc nitrate solution is about five times less viscose than the 83% magnesium nitrate solution. Therefore, the 73% zinc nitrate solution was found to be more suitable as a concentrating agent for nitric acid than the 83% magnesium nitrate solution, despite the fact that for an equivalent nitrate concentration the $Mg(NO_3)_2$ solution has greater dehydrating power. It was found that by mixing 55% nitric acid with 83-91% zinc nitrate solution in a 6:1 ratio, a mixture is generated which, upon distillation, is capable of yielding 96-98% nitric acid. The method based on zinc nitrate solution is recommended for use on a commercial scale. Orig. art. has: 2 figures.

SUB CODE: 07/ SUBM DATE: 19Nov64/ ORIG REF: 005/ OTH REF: 003

Card 1/1 fv UDC: 661.56

BARANOV, A.V.; KAREV, V.G.; CHENTSOVA, L.I.

Solution-vapor equilibrium in the system nitric acid - water - cadmium nitrate. Zhur. prikl. khim. 37 no.6:1363-1365 Je '64. (MIRA 18:3)

1. Sibirskiy tekhnologicheskiy institut.

BARANOV, A.V.; KAREV, V.G.; ALIPOVA, Ye.P.

Vapor-liquid equilibrium in the system consisting of the aqueous solutions of nitric acid and a mixture of magnesium and zinc nitrates. Zhur. VKHO 9 no. 2:233 '64. (MIRA 17:9)

1. Sibirskiy tekhnologicheskiy institut.

BARANOV, A.V.; KAREV, V.G.

Liquid - vapor equilibrium in the system nitric acid - water - zinc nitrate. Zhur. prikl. khim. 36 no.10:2302-2305 O '63. (MIRA 17:1)

1. Sibirskiy tekhnologicheskiy institut.

KAREV, V.I., inzh.; GOLKIN, N.I., inzh.

Adjustment of a heat regenerator installed behind a heating furnace. Prom. energ. 18 no.10:21-24 O '63. (MIRA 16:10)

ACC NR: AP7000545 SOURCE CODE: UR/0293/66/004/006/0827/0837

AUTHOR: Mandel'shtam, S. L.; Tindo, I. P.; Karev, V. I.
ORG: none

TITLE: Investigation of lunar x-ray radiation with the aid of the Luna-10 lunar satellite

SOURCE: Kosmicheskiye issledovaniya, v. 4, no. 6, 1966, 827-837
TOPIC TAGS: lunar radiation, x radiation, lunar satellite / Luna-10 lunar satellite

ABSTRACT:

During its orbital flight around the Moon, the Luna-10 determined several possible causes of lunar x-ray radiation: 1) reflection and scattering by the Moon's surface of incident x-rays from the sun; 2) bombardment of the lunar surface by high-energy particles such as are found in the solar wind; 3) bombardment of the Moon by electrons from the Earth's magnetosphere tail section; 4) natural radioactivity of the lunar surface; and 5) induced radioactivity caused by cosmic radiation. The most likely source of lunar x-ray radiation, however, is thought to be the incident solar x-rays which cause the lunar surface to fluoresce at characteristic lines K_α, which correspond to Si, Al, and Mg. The objective of the experiment was to measure the relative content of Si, Al, and Mg on the lunar surface and, if possible, to chart their geographic distributions.

 UDC: 629.195.3:523.36

The equipment used included two types of self-quenching Geiger counters with a neon-oxygen gas mixture used as the quenching agent. The aperture of one of the counters was covered with aluminum foil 2.7 mg/cm^2 thick. This counter was most sensitive to the radiation lines of Al and Mg. The other type of counter was shielded by 1.1-mg/cm^2 plate made of organic material. This counter was sensitive to Si, Al, and Mg radiation lines. Both types of counter had an aperture of 0.5 cm^2 and a field of view of 1 sterad. Three counters were placed on the satellite's surface as shown in the figure. Each counter was associated with a solar sensor (silicon phototransducer). The data from three Al-shielded counters were recorded by three separate logarithmic integrators. The counting range was limited to 5—500 counts/sec. The integrator time constant was approximately 10 sec. The counters with the organic-material covers supplied their data in parallel to a single integrator of the same type. These four integrators time-shared one telemetry channel. The output signals of the three parallel-connected solar sensors were amplified and transmitted to Earth through two telemetry channels. The telemetry system interrogated all outputs of the measurement channels once every two minutes.

Measurements were taken from 8 April to 29 May 1966 during a total of only 40 telemetry sessions. Between 8-28 April and 23-29 May solar activity was very high. Owing to the satellite's constant rotation around its own axis, with a 30—40-sec period of revolution, and because of certain difficulties presented by the counters, the results are imprecise and inconclusive.

The modulated signals from counter III from 8 to 28 April are in all probability of solar origin. Signals from the solar sensors corroborate this assumption. The minimum cosmic background noise counter signal was approximately 12 counts/sec.

The lunar surface was in the field of view of both counters I and II (see Fig. 1). Counter I in almost every case gave a count below

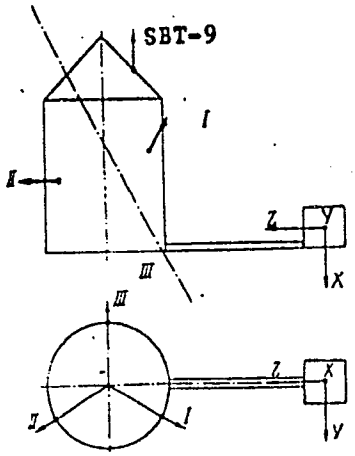


Fig. 1. Orientation of optical axes of x-ray counters (I, II, and III) and particle counter SBT-9, and orientation of the X, Y, and Z axes of the magnetometer

that of the cosmic noise. This would occur only if the counter was overloaded, as laboratory tests at different temperatures have indicated. An unexplained phenomenon occurred when counter I was recording approximately 500 counts/cm^2 -sec while the other counters (II and III) were recording only cosmic background, indicating that

the radiation was highly directional. It is assumed that this count was caused by lunar radiation, but the fact that the same phenomenon occurred on both the illuminated and dark sides of the Moon remains unexplained.

At times counter II also recorded radiation below the cosmic background noise, while at other times its measurements were close to the cosmic noise level. By comparing readings taken when the Luna-10 satellite was above the illuminated and the dark sides of the Moon with counter II directed at the Moon, it may be seen that the intensity of lunar x-ray radiation (less measurement errors) was 3—5 counts/cm^2-sec.

The interpretation of data from the counters covered by organic material is complicated by the fact that all of them shared the same channel whose capacity was often exceeded by the high count rate, which is assumed to have been caused by induced noise in one of the counters.

The same Geiger counters also registered the impact of space particles (probably electrons) whenever the satellite crossed the

ACC NR: AP7000545

boundary of the Earth's magnetosphere tail section. This occurred in synchronism with the data from other sensors especially designed to detect the presence of the magnetosphere. The count during this time was 50 pulses/cm^2 -sec. If it is assumed that the impacting particles are electrons with E $\geq$ 40 kev, the corresponding count of 50 electrons/cm^2 -sec is obtained. This is in complete agreement with the observable facts. However, the flux due to electrons from the magnetosphere tail should give rise to x-ray bremsstrahlung with an intensity of approximately 0.1 photon/cm^2 -sec-sterad, which under certain assumptions about the makeup of the lunar surface would give rise to fluorescent x-ray radiation flux whose magnitude is considerably lower than expected.

No precise and unambiguous conclusions are reached by the authors, since the exact orientation of the Luna-10 satellite with respect to the Moon and the Sun is not known. The authors express a desire for continuing the lunar x-ray radiation experiments, but propose the use of more sensitive equipment. Orig. art. has: 2 figures. [FSB: v. 3, no. 1]

SUB CODE: 22, 03 / SUBM DATE: 08Aug66 / ORIG REF: 006 / OTH REF: 006

Card 6/6

GONCHAROV, B.V. (Ufa); DEMIN, N.Ye. (Ufa); KAREV, V.M. (Ufa)

Testing the S-714 unit for sinking piles. Osn., fund.i mekh. grun. 4 no.4:16-17 '62. (MIRA 15:8)
(Piling (Civil engineering))

FEDOROV, Vladimir Aleksandrovich; KAREV, Vitaliy Mikhaylovich; PESHKOV, V.P., red.; POPOV, V.N., tekhn. red.

[Green fallow] Zaniatyi par. Tambov, Tambovskoe knizhnoe izd-vo, 1961. 62 p. (MIRA 16:6)
(Tambov Province--Tillage)

KAREV, V.M.; MEL'NITSKIY, A.G.

Bucket-wheel excavator with auger teeth. Trudy NIITransneft' no.1:333-344 '61. (MIRA 16:5)
(Earthmoving machinery)

L 18248-63 EWT(d)/EWP(k)/EWP(q)/EWT(m)/BDS AFFTC/ASD Pf-4 JD/HW/JG

ACCESSION NR: AP3002116 S/0185/63/008/006/0628/0632

AUTHOR: Karev, V. M.; Klyucharev, A. P.; Nazarova, T. S.; Ny*kolaychuk, A. D.; Reshetova, L. M.

TITLE: Investigation of foils obtained by thermal dissociation method

SOURCE: Ukrains'kyy fizychnyy zhurnal, v. 8, no. 6, 1963, 628-632

TOPIC TAGS: pyrolytic deposition, thermal dissociation, Ti target, Zr target, Hf target, nuclear target, beam target, Mo impurity, Ti foil, Zr foil, Hr foil, foil target, iodide dissociation, target preparation.

ABSTRACT: Results are given of investigations directed toward the reduction of molybdenum impurities in foils (targets for nuclear measurements) of Ti, Zr and Hf, which were obtained by the thermal dissociation method (pyrolytic deposition). The effect of iodide dissociation temperature on the quantity of Mo impurities was studied. For this purpose, intermediate layers of carbon were used, resulting in a decrease in Mo content by about one-half. The dissociation temperatures were varied between 850 C and 1200 C. Composition of the foils studied is given in Table 1, the effect of carbon layers on Mo content -- in Table 2, and the results of chemical and X-ray spectrum analysis are given in Table 3.

Card 1/2

L 18248-63

ACCESSION NR: AP3002116

The latter method of analysis is the more suitable since it does not require destroying the expensive isotope targets. The X-ray spectrum method allows not only the determination of the percent content but also the foil thickness at any point. The results are represented graphically. Orig. art. has: 2 formulas, 2 figures and 3 tables.

ASSOCIATION: Fiziko-Tekhnichny*y Insty*tut AN URSR, Kharkov (Physics-Technical Institute of the UkrSSR Acad. Sc.)

SUBMITTED: 12 Dec 62 DATE ACQ: 12 Jul 63 ENCL: 00

SUB CODE: NS, PH NO REF SOV: 007 OTHER: 00

Card 2/2

GONCHAROV, B.V. (Ufa); KAREV, V.M. (Ufa); TROYANOVSKIY, Yu.V. (Ufa)

Results of comparative tests of mobile machines for pile sinking. Osn. fund.i mekh.grun. 6 no.1:19-21 '64. (MIRA 17:2)

KAREV, V. N.

"Experimental Investigation of the Effect of Liquid Viscosity of Some Local Resistances." Cand Tech Sci, Moscow Inst Municipal Construction Engineers of the Moscow City Executive Committee, Moscow, 1955. (KL, No 8, Feb 55)

SO: Sum. No. 631, 26 Aug 55-Survey of Scientific and Technical Dissertations Defended at USSR Higher Educational Institutions (14)

KAREV, V. NIKOLAYEVICH

SAMARIN, Aleksandr Mikhaylovich,; KARASEV, Robert Alekseyevich, kandidat tekhnicheskikh nauk; VERTMAN, Aleksandr Abramovich, inzhener; KAREV, Viktor Nikolayevich, kandidat tekhnicheskikh nauk; UDAL'TSOV, A.N., glavnyy redaktor; SHTEYNBOK, G.Yu., redaktor

[Apparatus for studying kinetic processes at high temperatures. Apparatus for studying the discharge of viscous liquids through orifices and nozzles] Ustanovka dlia izucheniia kinetiki protsessov pri vysokikh temperaturakh. Ustanovka dlia issledovaniia istecheniia viazkikh zhidkostei iz otverstii i nasadkov. Tema 4.no.P-56-457 Moskva, 1956. 15 p. (MLRA 10:5)

1. Moscow. Institut tekhniko-ekonomicheskoy informatsii.
(Chemical apparatus) (Viscosity) (Fluid dynamics)

KAREV, V.N.

Mechanization and use of automatic controls in experimental research of hydraulic resistance in pipeline systems. Neft.khoz.34 no.3:55-56 Mr '56. (Petroleum--Pipelines) (MLRA 9:7)

KAREV, V.N.

Determining resistance in elbows of large diameter pipelines.
Gaz.prom. no.8:30-32 Ag '56. (MLRA 10:7)
(Pipelines)

KARNV, V.N.

Discharge coefficient μ in the flow of viscous liquids from orifices. (MLRA 10:8)
Neft. khoz. 34 no.12:52-56 D '56.
(Viscosity)

KAREV, V.N.

Hydraulic resistance of welded pipe bends. Gaz.prom. no.2:33-35 F '57. (MLRA 10:3)
(Pipe, Steel--Testing)

SOV/124-58-7-7830

Translation from: Referativnyy zhurnal, Mekhanika, 1958, Nr 7, p 74 (USSR)

AUTHOR: Karev, V.N.

TITLE: A Simple Device for Demonstrating the Water Hammer in Pipes (Prostoy pribor dlya demonstratsii gidravlicheskogo udara v trubakh)

PERIODICAL: Tr. Mosk. in-ta inzh. gor. str-va, 1957, Nr 6, pp 115-118

ABSTRACT: Bibliographic entry

1. Water--Properties 2. Pipes--Properties 3. Noise--Analysis

Card 1/1

SVESHNIKOV, I.P.; KAREV, V.N.

Some problems concerning air pockets in water pipes. Vod. i san. tekh. no.9:17-19 S '58. (MIRA 11:10)

(Water pipes)

S/120/61/000/002/036/042
E032/E114

AUTHORS: Bondar', A.D., Karev, V.N., and Klyucharev, A.P.

TITLE: Preparation of isotopic magnesium foils from magnesium oxide

PERIODICAL: Pribory i tekhnika eksperimenta, 1961, No.2, pp.177-178

TEXT: Russell et al. (Ref.3) have described a method for the preparation of isotopic magnesium. The present authors suggest that this method suffers from the disadvantage that the magnesium specimen contains magnesium oxide and tantalum impurities. Moreover, it cannot easily be used to obtain relatively thick targets, or targets in the form of a pure magnesium foil. The present authors use the following method: 100-150 mg of the isotopic magnesium oxide and 250-400 mg of lanthanum are ground down until the grain size is of the order of 1 mm. They are then inserted in layers into the crucible shown in Fig.1. The crucible contains a filter 3 which is prepared from molybdenum shavings. The crucible is then inserted into the furnace 5 (Fig.2). The reduction and evaporation of magnesium is carried out in the vacuum system shown in Fig.2 (at pressures at

Card 1/4

S/120/61/000/002/036/042
E032/E114

Preparation of isotopic magnesium foils from magnesium oxide 10^{-5} - 6 x 10^{-6} mm Hg). Temperatures of the order of 700-1300 °C are necessary and the reaction times involved range from a few minutes to a few hours, depending on the form of the original materials employed. The reduced metallic magnesium is collected on the target 1 which is cooled by liquid nitrogen. Owing to the intensive cooling of the target the magnesium foil is frequently found to crack. In order to obtain a continuous foil the magnesium is again evaporated from the same furnace on to the uncooled target. Depending on the amount of metal employed and the distance to the target, 2 - 60 μ foils can be obtained by this method. The target is in the form of a polished tantalum foil. The target surface is carefully rubbed with ceresin and finally with soft cotton. Magnesium foils can then be separated from the target with the aid of a razor blade. Foils having a thickness of less than 5 μ can be removed by immersing the target in water or alcohol. The reduction and evaporation process is very dependent on the absence of oxidizing impurities. These can be removed with the aid of hydrogen or some

Card 2/4

S/120/61/000/002/036/042
E032/E114

Preparation of isotopic magnesium ..

other reducing agent.
There are 2 figures and 8 references: 7 Soviet and 1 English.

ASSOCIATION: Fiziko-tekhnicheskiy institut AN USSR
Physico-technical Institute, AS Ukr.SSR)

SUBMITTED: April 2, 1960

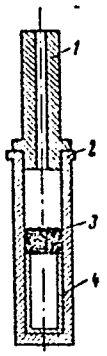


Fig. 1

Card 3/4

S/120/61/000/004/020/034
E202/E592

AUTHORS: Bondar A D, Karev V N and Klyucharev A P

TITLE: Preparation of thin foils from the isotopic alkali and alkaline earths metals

PERIODICAL: Pribory i tekhnika eksperimenta, no 4, 1961, 136-139

TEXT: The authors describe the preparation of metallic foils of Na, K, Rb, Cs and Li, Ca, Sr, Ba which were used as targets for proton beams of linear accelerators. Two distinct methods are described, viz by the decomposition of the corresponding azides and by the reduction of oxides in vacuo with metallic lanthanum powder. For the first method the azides of all the above metals except lithium were prepared in an aqueous medium and subsequently evaporated and frozen to prevent the moisture pick-up. Lithium azide was prepared according to the method described by N. Hofman (Ref 7: Bang, Acta chem. scand., 1957, 11, 581). The azides of Na, K, Rb and Cs were decomposed in a sealed glass vessel which was evacuated to approximately 10^{-3} mm Hg, and heated slowly to 150°C. When the decomposition started the heating was terminated, but after its completion the temperature

Card 1/3

was increased again Precautions were taken to degass the collected metal at 350-360°C and transfer it by gentle heating into another vessel evacuated to 10^{-4} mm Hg and finally depositing it in a small glass ampoule The authors found that the rather high decomposition temperatures of 275-395°C may be lowered to 160-190°C and the yield of the above metals made substantially stoichiometric if small quantities of barium azide are added to the alkali metal azides The authors attempted to decompose the azides of Li Ca, Sr and Ba in vacuo in a different type of apparatus Here the azide was placed in an armco iron crucible which in turn was placed in a quartz vessel The crucible was fixed to a conical condenser also made of armco iron, connected to a copper cooler The azides were decomposed below 300°C and then the temperature was increased to 800-900°C, with the subsequent distillation of the metal which finally collected in the condenser This method gave 70% yield in the case of Sr and Ba and only 20% yield in the case of Ca In the case of lithium the decomposition of the azide was always too violent resulting in an explosion Hence, for the preparation of Li, Ca, Sr and Ba foils the authors used another method based on

the reduction of the corresponding oxides with powdered lanthanum The procedure of this method closely follows the method used by J B Platt and D H Tomboulian (Ref 9: Rev Scient Instrum., 1941, 12 612) in the preparation of magnesium foils Calcium foils of 1-5 μ thickness prepared according to the last method from stable isotope enriched carbonate withstood proton irradiation of 5.4 and 6.8 MeV and 10^{-9} - 10^{-10} amp for many hours There are 2 figures 3 tables and 9 references 4 Soviet and 5 non-Soviet The English-language references read as follows: Ref.2: L.N.Russell W.E.Taylor J.N.Cooper, Rev Scient Instrum., 1952, 23, 764; Ref.3: D.H.Randall, M.L.Smith Nature 1955, 175, 1041; Ref.9: Quoted in text.

ASSOCIATION: Fiziko-tekhnicheskiy institut AN UkrSSR
(Physico-technical Institute AS UkrSSR)

SUBMITTED: July 18 1960

BONDAR', A.D.; KAREV, V.N.; KLYUCHAREV, A.P.

Making isotopic magnesium foils of magnesium oxide. Prib. i tekh. eksp. 6 no.2:177-178 Mr-Ap '61. (MIRA 14:9)

1. Fiziko-tekhnicheskiy institut AN USSR.
(Metal foils) (Magnesium)

BONDAR', A.D.; KAREV, V.N.; KLYUCHAREV, A.P.

Making thin metal foils of isotopes of alkali and alkaline earth metals. Prib. i tekh.eksp. 6 no.4:136-139 Jl-Ag '61. (MIRA 14:9)

1. Fiziko-tekhnicheskiy institut AN USSR.
(Metal foils) (Alkali metals) (Alkaline earth metals)

S/032/62/028/012/004/023
B124/B101

AUTHORS: Bondar', A. D., Karev, V. N., Klyucharev, A. P., and Nikolaychuk, A. D.

TITLE: X-ray spectrum analysis of thin metal foils

PERIODICAL: Zavodskaya laboratoriya, v. 28, no. 12, 1962, 1446 - 1448

TEXT: Non-destructive determination of impurities in thin titanium, chromium, and zirconium foils was carried out by X-ray spectrum fluorescence analysis. The foils were obtained by decomposing the corresponding iodides on a molybdenum base which was then dissolved in nitric acid. Molybdenum diffuses into the foils at 1050 - 1250°C. Specimens of 20 mm diameter resulting from vacuum metallization of molybdenum on an aluminum film were used as external standards. If the foils are $\leq 1\,\mu$ the molybdenum content can be found directly on the calibration curve. If the molybdenum distribution is irregular, it can be determined approximately by irradiation from both sides. If the total impurity forms a thin layer on one side of the foil, then $I_2' = I_0 e^{-\mu A \rho}$ (2)

Card 1/2

X-ray spectrum analysis ...

with $A = \left(\frac{1}{\sin\beta_1} + \frac{1}{\sin\beta_2}\right)$, and $\mu = \mu_0$, holds approximately for the reduction in absorption of the MoK_α radiation from the other side. I_0 is the intensity of MoK_α-radiation on the side where the base is, μ_2 is the mass coefficient of absorption of the foil for characteristic X-rays, β_1 and β_2 are the angles between the foil surface and the primary and characteristic rays respectively, and ρ is the surface density of the foil in $\mu g/cm^2$. If molybdenum is distributed on the surface, $I_1' = I_2 e^{\mu_1}$ (5) is obtained on the assumption that the experimental value I_2 is given by reducing any intensity I_1'. The actual molybdenum value corresponds best with the mean value of I_1 and I_1'. There are 1 figure and 2 tables. The most important English-language reference is: P. D. Zemany, H. A. Leibhafsky, J. Electrochem. Soc. 103, 157 (1956).

ASSOCIATION: Fiziko-tekhnicheskiy institut Akademii nauk USSR (Physico-technical Institute of the Academy of Sciences UkrSSR)

Card 2/2

S/032/62/028/012/C05/023
B104/B186

AUTHORS: Karev, V. N., Klyucharev, A. P., and Medyanik, V. N.

TITLE: Determination of the thickness of metal foils from the change in intensity of the characteristic X-radiation

PERIODICAL: Zavodskaya laboratoriya, v. 28, no. 12, 1962, 1449-1451

TEXT: Two methods of determining the thickness of metal foils are compared. In the first method, the thickness is determined from the increase in intensity of the characteristic X-radiation with the growing thickness of a foil or coating when irradiated by a primary X-ray beam. In this case $I_d = I_\infty (1 - \exp(ad))$, where I_∞ is the intensity of the characteristic X-radiation from an infinitely thick layer, $a = -\left(\frac{\mu_1}{\sin\beta_1} - \frac{\mu_2}{\sin\beta_2}\right)$. μ_1 and μ_2 are the mass absorption coefficients for primary and secondary emission of the foil, β_1 and β_2 are the angles between the sample surface and the primary and fluorescing rays, respectively. d is the thickness. In the

Card 1/3

second method, the thickness of the foil (coating) is determined from the decrease in intensity of the characteristic radiation of the backing when the thickness of the foil increases. In this case $I = I_o \exp(ad)$, where I_o is the intensity of the characteristic radiation from the backing without a foil (coating). Here, μ_1 and μ_2 are the mass absorption coefficients of the coating material for the primary X-ray beam and for the characteristic radiation of the backing. The thickness of Cr, Co, Ni, and Zn foils was determined using a Blokhin fluorescence X-ray spectrometer (M. A. Blokhin, V. F. Volkov, Zavodskaya laboratoriya, XXVII, 9, 1110, 1960) with a bent quartz crystal (R = 400 mm). The first method proved better for thin samples, the second for thick samples. For very thin samples the linear relation $I_d = I_\infty ad$ holds for the first method. When $d > d_c$, I_d will no longer depend on the thickness of the sample. d_c = 0.25 μ for nickel and 0.3 μ for zinc. As $\mu_{mean} \approx \mu_{1,2}$ for the second method, the thickness can be determined with sufficient accuracy from the formula

Determination of the thickness of... S/032/62/028/012/005/023
B104/B186

$\ln I = \ln I_o - \left(\frac{1}{\sin\beta_1} + \frac{1}{\sin\beta_2}\right)\mu_{mean}\delta d$. There are 3 figures and 2 tables.

ASSOCIATION: Fiziko-tekhnicheskiy institut Akademii nauk USSR (Physico-technical Institute of the Academy of Sciences UkrSSR)

Card 3/3

KAREV, V.N. [Kariev, V.M.]; KLYUCHAREV, A.P. [Kliuchariev, O.P.]; NAZAROVA, T.S.; NIKOLAYCHUK, A.D. [Nykolaichuk, A.D.]; RESHETOVA, L.N. [Reshetova, L.M.]

Study of foils produced by the thermal dissociation method. Ukr. fiz. zhur. 8 no.6:628-632 Je '63. (MIRA 16:7)

1. Fiziko-tekhnicheskiy institut AN UkrSSR, Khar'kov.
(Molybdenum) (X-ray spectroscopy)

L 12596-63 EWP(q)/EWT(m)/BDS AFFTC/ASD JD

ACCESSION NR: AP3003487 S/0078/63/008/007/1788/1788

AUTHOR: Matyushenko, N. N.; Karev, V. N.; Verkhorobin, L. F. 58

TITLE: Beryllides of samarium, europium and ytterbium of composition ABe sub 13

SOURCE: Zhurnal neorganicheskoy khimii, v. 8, no. 7, 1963, 1788

TOPIC TAGS: beryllide, samarium, europium, ytterbium, intermetallic compound, X-ray analysis technique

ABSTRACT: Surface layers of the intermetallic compounds are formed as a result of interaction of vapors of reduced metal with beryllium. Crystal structures were studied using X-ray analysis techniques.

ASSOCIATION: Fiziko-tekhnicheskiy institut Akademii nauk, USSR (Physico-Engineering Institute, Academy of Sciences, USSR).

SUBMITTED 06Dec62 DATE ACQ: 02Aug63 ENCL: 00

SUB CODE: CH, EL NO REF SOV: 002 OTHER: 002

Card 1/1

ACCESSION NR: AP4024994 S/0070/64/009/002/0273/0275

AUTHORS: Matyushenko, N. N.; Verkhorobin, L. F.; Karev, V. N.

TITLE: Strontium beryllide

SOURCE: Kristallografiya, v. 9, no. 2, 1964, 273-275

TOPIC TAGS: strontium beryllide, cubic lattice, stoichiometric formula, space group, x-ray diffraction, powder photograph

ABSTRACT: The compound was prepared by reducing SrO with Be, with the simultaneous formation of BeO according to the equation:

$$SrO + 14Be = SrBe_{13} + BeO.$$

The powders were mixed and placed in a tantalum crucible, and the reaction was carried out in a vacuum of 10^{-3} mm Hg at a temperature of 1200-1250C. The product was a porous, light-brown mass. The presence of beryllide was established by x-ray studies. Powder photographs showed no BeO, but chemical analyses gave 11.8%

Card 1/2

ACCESSION NR: AP4024994

Characteristics established for the new compound are: stoichiometric formula of $SrBe_{13}$, crystalline structure of the $NaZn_{13}$ type, space group O_h^6 - Fm3c, parameters y = 0.175 and z = 0.110, cubic lattice with a lattice constant of a = 10.157 ± 0.001 Å, computed density of 2.35 g/cm^3. Orig. art. has: 1 figure and 2 tables.

ASSOCIATION: Fiziko-tekhnicheskiy institut AN UkrSSR (Physicotechnical Institute, AN UkrSSR)

SUBMITTED: 22Jul63 DATE ACQ: 16Apr64 ENCL: 00

SUB CODE: PH NO REF SOV: 002 OTHER: 001

Card 2/2

ACCESSION NR: AP4015322 S/0032/64/030/001/0045/0046

AUTHORS: Karev, V. N.; Matyushenko, N. N.

TITLE: Absorption x ray analysis of molybdenum and beryllium alloys

SOURCE: Zavodskaya laboratoriya, v. 30, no. 1, 1964, 45-46

TOPIC TAGS: x ray analysis, x ray absorption, beryllium molybdenum alloy analysis, beryllide, radiation damping coefficient, x ray source 5BKhV1 W, molybdenum, silver, copper

ABSTRACT: In order to confirm the stoichiometric formula $MoBe_{22}$ an absorption x-ray analysis was performed based on the measurement of the intensity of x-rays passing through a flat sample. A type 5BKhV1-W x-ray tube was used to excite a secondary emitter (Mo, Ag, Cu - 20-mm diameter, 0.2-0.3 mm thick), the rays were focused by a quartz crystal, passed through the sample, and were measured with a type MSTR-5 Geiger counter. Since the intensity is given by $I = I_0 e^{-\mu_m m_0}$ (where I_0 - initial intensity, μ_m - mass damping coefficient, m_0 - density of material)

Card 1/2

ACCESSION NR: AP4015322

while $\mu_m = \sum C_i \mu_i$, the damping coefficient changes linearly with beryllium content if only two components are present. The samples were prepared by evaporating a suspension of the beryllium compound. μ_{Be} and μ_{Mo} were measured on samples of beryllium (vacuum distilled, 3-5 mm thick) and molybdenum (10-50 micron thick). It was found that the molybdenum content by weight in molybdenum beryllide was 33.1% while its content in a heterogeneous alloy was 20.1%. This agrees well with other experiments and with values obtained by chemical analysis. It was found that the accuracy of this method decreases as the Mo content decreases, being 6% at a 10% weight content of Mo. Orig. art. has: 3 formulas, 1 figure, and 2 tables.

ASSOCIATION: Fiziko-tekhnicheskiy institut AN UkrSSR(Physicotechnical Institute AN UkrSSR)

SUBMITTED: 00 DATE ACQ: 03Feb64 ENCL: 00

SUB CODE: MM NO REF SOV: 002 OTHER: 000

Card 2/2

BR

ACCESSION NR: AP4033611 S/0032/64/030/004/0438/0439

AUTHORS: Karev, V. N.; Bondar', A. D.; Klyucharev, A. P.

TITLE: Determining the thickness of metallic foils from their absorption of characteristic x-rays

SOURCE: Zavodskaya laboratoriya, v. 30, no. 4, 1964, 438-439

TOPIC TAGS: metallic foil, foil thickness, x ray absorption, magnesium, chromium, iron, copper, zinc, chromium iodide, absorption coefficient, surface density

ABSTRACT: Experiments were performed to determine local thickness and character of metal distribution in foils of Mg, Cr, Fe, Cu, Zn, and Pb-Sn. A short-wave x-ray spectrometer with a monitor was used. Measurements were taken with the help of a micrometrically operated collimator mounted in front of the counter aperture. The foil could be moved in a plane perpendicular to the x-ray beam, so that the areas of 0.05 x 2 mm^2 could be investigated. In order to determine the surface density m_0, and consequently the thickness of foils, not only the intensities of radiation but also the coefficients of absorption μ_m for a given wavelength must be known. These

Card 1/3

ACCESSION NR: AP4033611

were determined from the absorption of MoK$_\alpha$ radiation. The surface density of Mg foil was obtained from its absorption of CuK$_\alpha$, with μ_{Mg} taken as 39.3. In determining the character of metal distribution, the frames containing foil were placed in two mutually perpendicular planes. On Fig. 1 of the Enclosure the mean values of m_o are shown by dashes, the experimental values by dots. This work represents a continuation of a previous article by V. N. Karev, A. P. Klyucharev, and V. N. Medyanik (Zavodskaya laboratoriya, XXVIII, 12, 1449 1962). Orig. art. has: 1 figure and 1 table.

ASSOCIATION: Fiziko-tekhnicheskiy institut Akademii nauk UkrSSR (Physicotechnical Institute, Academy of Sciences, UkrSSR)

SUBMITTED: 00 DATE ACQ: 28Apr64 ENCL: 01

SUB CODE: MM NO REF SOV: 001 OTHER: 001

Card 2/3

ACCESSION NR: AP4033611

ENCLOSURE: 01

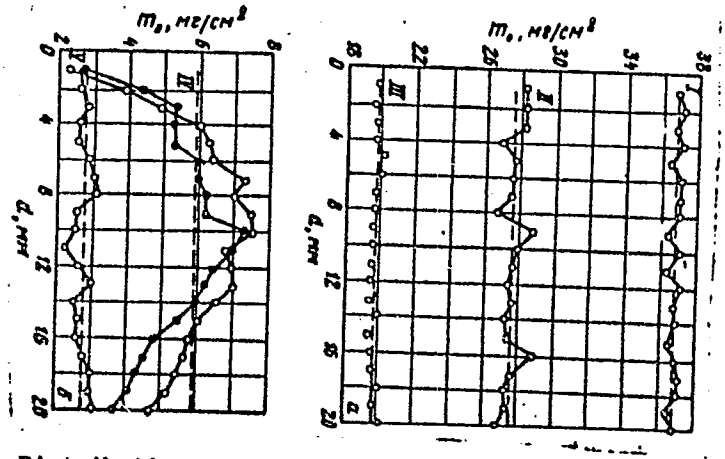


Fig. 1. Distribution of metal in the foils: I. copper; II. electrolytic iron; III. commercial lead-tin; IV. chromium produced by the decomposition of chromium iodide; V. electrolytic chromium.

Card 3/3

ACCESSION NR: AP4035083 S/0032/64/000/005/0548/0551

AUTHOR: Karev, V. N.

TITLE: X-ray absorption analysis of binary and tertiary alloys and mixtures

SOURCE: Zavodskaya laboratoriya, no. 5, 1964, 548-551

TOPIC TAGS: x ray absorption, binary alloy, tertiary alloy, absorption, x ray spectrometer

ABSTRACT: The author determined the bulk coefficient of absorption of CuK_α, AgK_α and MoK_α radiation for various elements and established the possibility of using the absorption method of analysis of three-component mixtures within a relative error of 10% when the component percentages were greater than 5. In this work a shortwave x-ray spectrometer was used for the measurements. The bulk coefficients of absorption were determined for light as well as heavy pure metal specimens 20 mm in diameter, and 5-30 microns thick. The experimentally measured values were compared with the values calculated by Johnson and by Beckelen. The measured values were nearer to those of Beckelen, the two values agreeing very well when the component percentages ranged from high down to 5. Orig. art. has: 4 formulas, 4 tables, and 2 figures.

Card 1/2

ACCESSION NR: AP4035083

ASSOCIATION: Fiziko-tekhnicheskiy institut, Akademii nauk UkrSSR(Physico-technical Institute, Academy of Sciences, UkrSSR)

SUBMITTED: 00 ENCL: 0C

SUB CODE: SS,MM NO REF SOV: 007 OTHER: 002

Card 2/2

MATYUSHENKO, N.N. [Matiushenko, M.M.]; KAIDV, V.N. [Kariev, V.N.]; SVIRIDENKO, A.P. [Svyrydenko, O.P.]

Beryllides of rare earth metals. Ukr. fiz. zhur. 9 no.11:1266-1267 N '64. (MIRA 17:9)

1. Fiziko-tekhnicheskiy institut AN UkrSSR, Khar'kov.

MEDYANIK, V.N. [Medianyk, V.M.]; KARIEV, V.N. [Kariev, V.M.]; KLYUCHARIEV, A.P. [Kliuchariev, O.P.]

Production of isotopic iron and chromium targets for nuclear research. Ukr. fiz. zhur. 9 no.7:798-799 Jl '64. (MIRA 17:10)

1. Fiziko-tekhnicheskiy institut AN UkrSSR, Khar'kov.

KAREV, V.F. [Karev, V.M.]; KLYUCHAREV, A.P. [Kliuchariev, O.P.]

X-ray spectral and absorption methods for target analysis.
Ukr. fiz. zhur. 10 no.8:907-910 Ag '65. (MIRA 18:8)

1. Fiziko-tekhnicheskiy institut AN UkrSSR, Khar'kov.

L 44271-65 EWT(m)/T/EWP(t)/EWP(b)/EWA(c) IJP(c) JD/JG

ACCESSION NR: AP5009912 UR/0032/65/031/004/0440/0441

AUTHORS: Karev, V. N.; Reshetova, L. I.

TITLE: X-ray spectral analysis of strontium, thulium, and lutetium beryllides

SOURCE: Zavodskaya laboratoriya, v. 31, no. 4, 1965, 440-441

TOPIC TAGS: beryllium inorganic compound, strontium compound, thulium compound, lutetium compound, x ray spectrum, x ray structure analysis

ABSTRACT: A solid porous mass is obtained when a powdered mixture of Be and one of the oxides SrO, Tm_2O_3, or Lu_2O_3 is heated in a vacuum at 1200-1300C. X-ray structure studies on the products indicate compounds of the $MeBe_{13}$ type, and this implies the presence of BeO, but this phase has not been detected on the powder diagrams because the most intense lines of BeO practically coincide with the beryllide lines. The authors sought confirmation of the presence of BeO in the indicated reactions. Weighed mixtures of the compounds were dissolved in HCl, and a white flocculant precipitate formed. Since the beryllides dissolve readily in acid, this material must be BeO. The precipitate was filtered off, washed, heated, and weighed. The BeO thus measured compared favorably with

Card 1/2

L 44271-65

ACCESSION NR: AP5009912

the computed value. External standards were then prepared for spectral analysis. The dependence of line intensities ($K\alpha$ for Sr and $L\beta_1$ for Tm and Lu) on concentration was determined. It was found that the beryllide composition thus determined is in good agreement with x-ray structure studies. Orig. art. has: 1 figure and 1 table.

ASSOCIATION: Fiziko-tekhnicheskiy institut Akademii nauk UkrSSR (Physico-Technical Institute, Academy of Sciences UkrSSR)

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

NO REF SOV: 002 OTHER: 000

Card 2/2

L 46703-66 EWT(m)/EWP(k)/EWP(t)/ETI IJP(c) JD/HW/JG/GD

ACC NR: AT6020710 (N) SOURCE CODE: UR/0000/65/000/000/0118/0125

63
B+1

AUTHOR: Karev, V. N.; Klyucharev, A. P.; Lishenko, L. G.; Medyanik, V. N.

ORG: Physicotechnical Institute AN UkrSSR (Fiziko-tekhnicheskiy institut AN UkrSSR)

TITLE: Production of foils of platinum-group metals and gold, and measurement of their thickness

SOURCE: AN UkrSSR. Fizika metallicheskikh plenok (Physics of metal films). Kiev, Naukova dumka, 1965, 118-125

TOPIC TAGS: gold, platinum group metal, metal film, metal deposition, metal property, x ray absorption, x ray measurement, isotope

ABSTRACT: The purpose of the study was to obtain, for nuclear-research purposes, thin foils of Pt, Pd, and Rh, which have not been obtained in foil form before, starting with small amounts of expensive isotopic raw material. It was also desired to obtain foils of gold and of the other metals with minimum metal loss. All foils were prepared by deposition from specially treated electrolytes, the production of which is described. The foil thickness was determined from its absorption of monochromatic x-rays. This is claimed to be more accurate than weighing. The apparatus used for this measurement is described in detail. The Pd and Rh foils were of uniform thickness (up to 7 μ), but those of Pt and Au exhibited considerable non-uniformity, attributed to irregularities in the relative electrode position, unevenness of the cathode surface, and to electric and electrochemical factors. Orig. art. has: 4

Card 1/2

L 46707-66

ACC NR: AT6020710

figures, 2 formulas, and 2 tables.

SUB CODE: 20, 11/ SUBM DATE: 30Oct64/ ORIG REF: 006/ OTH REF: 004

pb

Card 2/2

ACC NR: AP6035097 SOURCE CODE: UR/0032/66/032/009/1084/1085

AUTHOR: Karev, V. N.; Matyushenko, N. N.

ORG: Physics Engineering Institute, Academy of Sciences UkrSSR (Fiziko-tekhnicheskiy institut Akademii nauk UkrSSR)

TITLE: X ray absorption analysis of beryllium and rhodium alloys

SOURCE: Zavodskaya laboratoriya, v. 32, no. 9, 1966, 1084-1085

TOPIC TAGS: beryllium alloy, rhodium alloy, x ray analysis, structural diagram

ABSTRACT: The rhodium-beryllium system has not been studied at the present time. The method of determining alloy structure should be known in order to study the structure of the crystal phases and the constitutional diagram. The alloys were prepared under vacuum at 100--1400 C with Rh concentrations of 14 to 90 wt. % and in most cases were heterogeneous with unknown phase structure. Their composition was determined by x-ray absorption analysis and volumetric measurement of the same alloys by the microportion method. The difference in determining rhodium content by these two methods was no more than ±5%. Orig. art. has: 2 formulas and 1 table.

SUB CODE: 11/ SUBM DATE: none/ ORIG REF: 004

Card 1/1

ACC NR: AP7000019 SOURCE CODE: UR/0080/66/039/011/2525/2529

AUTHOR: Karov, V. N.; Klyucharev, A. P.; Lishenko, L. G.; Medyanik, V. N.

ORG: none

TITLE: Preparation of platinum group and gold metal foils and measurement of their thickness

SOURCE: Zhurnal prikladnoy khimii, v. 39, no. 11, 1966, 2525-2529

TOPIC TAGS: metal film, palladium, rhodium, gold, platinum, metal plating

ABSTRACT: The purpose of the work was to prepare palladium, rhodium, platinum and gold foils for nuclear studies by starting from small quantities of expensive isotopic raw material, using a method which involved a minimum loss and a maximum utilization of the electrolyte. The conditions of electrodeposition and compositions of the electrolytic baths are given. Platinum anodes were used in all cases. The baths described made it possible to obtain Pd, Pt, Rh and Au foils 0.5 to 15 μ thick and 22 mm in diameter. The thickness of a foil in any given area was determined by using an x-ray method based on the absorption of a narrow monochromatic beam of x rays by the foil. The measurements were carried out by means of a shortwave x-ray fluorescence spectrometer. A certain nonuniformity observed in the thickness of Au and Pt foils is attributed to the geometrical arrangement of the electrodes relative to each other, the state of the cathode surface, and electric and electrochemical factors. Authors

UDC: 621.793:546.91/.98+546.59

Card 1/2

ACC NR: AP7000019

express their appreciation to G. V. Yakunina for her considerable practical assistance. Orig. art. has: 3 figures, 2 tables and 2 formulas.

SUB CODE: 11,07/ SUBM DATE: 03Jun63/ ORIG REF: 006/ OTH REF: 004

Card 2/2

KAREV, Viktor Prokof'yevich; MASHKINA. A., red.; YAKOVLEVA,Ye., tekhn. red.

[Notes of a veterinarian] Zapiski veterinarnogo vracha. Moskva, Mosk. rabochii, 1963. 45 p. (MIRA 16:9)

1. Glavnyy veterinarnyy vrach Lyuberetskogo proizvodstvennogo sovkhozno-kolkhoznogo upravleniya (for Karev).
(Veterinary medicine)

LYCHKIN, Viktor Vasil'yevich; KAREV, Viktor Prokof'yevich; SOKOLOVA, G., red.

[Cultivation of vegetables and green fodder on soil substitutes] Vyrashchivanie ovoshchei i zelenogo korma na zamenitelíakh pochvy. Moskva, Mosk. rabochii, 1964. 102 p. (MIRA 18:8)

KAREV, V.P.

Ten tons of green supplementary feeds per day. Veterinariia 41 no.2:11-13 F '64. (MIRA 17:12)

1. Glavnyy veterinarnyy vrach Lyuberetskogo proizvodstvennogo upravleniya Moskovskoy oblasti.

KAREV, V.T.

KAREV, V.T.

State of cotton manufacture in Japan (from "Journal of the Textile Machinery Society of Japan" no. 1, 1955). Tekst.prom. 17 no.12:58-61 '57. (MIRA 11:1)
(Japan--Cotton manufacture)

LEBEDEV, K.K.; TOMINA, L.A.; RAKITINA, M.A.; KAREV, V.Ya.

Absorption of impurities in the discharging of waste waters of wood chemicals industries into peat bogs. Sbor. trud. TSNILKHI no.15:123-129 '63.

(MIRA 17:11)

CHUPRIKOV, I., elektrik; AVERKIN, G., starshiy stalevar; KAREV, Ye., kuznets; IVANOV, I., master; SYSHINOV, A.

New norms but old usages. Okhr. truda i sots. strakh. 4 no.5:42-44 My '61. (MIRA 14:5)

1.Spetsial'nyy korrespondent zhurnala "Okhrana truda i sotsial'noye strakhovaniye" (for Sushinov).

(Work clothes)

L 37731-65 EWT(d)/EEC(k)-2/EEC-4 Po-4/Pq-4/Pg-4/Pk-4/Pl-4

ACCESSION NR: AP5007380 S/0286/65/000/004/0038/0038

AUTHOR: Kolchinskiy, V. Ye.; Chernyy, A. Ye.; Mandurovskiy, I. A.; Karev, Yu. I.

TITLE: System for measuring the drift angle and flight speed of aircraft. 47 B

Class 21, No. 168342

SOURCE: Byulleten' izobreteniy i tovarnykh znakov, no. 4, 1965, 38

TOPIC TAGS: flight speed measurement, drift angle measurement, four beam antenna, Doppler effect

ABSTRACT: The proposed system is based on the use of the Doppler effect in the continuous radiation and reception of electromagnetic waves by a four-beam antenna. Measurement accuracy is improved by simultaneous reception of coherent signals from two points on the terrain swept by a pair of antenna beams. For this purpose, as well as to reduce the weight of the unit, a single receiving channel is used which is equipped with an electron commutator to switch the receiving antennas in pairs. A converted signal from the transmitter serves as a heterodyne voltage. Orig. art. has: 1 figure. [JR]

ASSOCIATION: none

Card 1/2

KARLOVA, A. I.

KARLOVA, A. I. --"Oak and its Variation in the Light Chestnut Soils of Stalingrad Oblast." *(Dissertations for Degrees in Science and Engineering Defended at USSR Higher Educational Institutions) Min of Higher Education USSR, Saratov Agricultural Inst, Saratov, 1955

SO: Knizhnaya Letopis', No. 25, 18 Jun 55

* For Degree of Candidate in Agricultural Sciences

BRAYNIN, I.Ye.; BUDINSHTEYN, R.I., Prinimali uchastiye: TURSUNOV, A.V.; KHARCHENKO, V.A.; KHOKHRYAKOV, B.D.; SEMKIN, A.T.; FILATOV, N.G.; KAREVA, A.G.

Industrial experimentation in patenting rope wire in two baths. Izv.vys.ucheb.zav.; chern.met. 4 no.6:139-144 '61. (MIRA 14:6)

1. Donetskiy politekhnicheskiy institut.
(Annealing of metals) (Wire drawing)

KAREVA, A.I

USSR/Safety Engineering - Sanitary Engineering. Sanitation. L.

Abs Jour : Ref Zhur - Khimiya, No 2, 1957, 7015

Author : Kareva, A.I.
Inst : Leningrad Sanitary Hygienic Medical Institute.
Title : Materials on Toentgeno-Kymographic Study of Blood Volume per Beat and Per Minute in Silicosis of Porcelain Industry Workers.

Orig Pub : Tr. Leningr. san.-gigiyen. med. in-ta, 1955, 21, 107-114

Abst : 43 workers of a porcelain plant, who were exposed to SiO_2 containing dust (length of employment from 4 to 20 years) were subjected to roentgenological investigations (roentgenography of the chest organs and roentgeno-kymography of the heart according to the method of Grinberg and Vaynshteyn). Results of the investigation revealed that silicosis patients have a decreased blood volume per minute during the first and second stages of the disease.

Card 1/1

KAREVA, A. I. Cand Med Sci -- (diss) "X-ray and kymographic study of the state of the stroke - and minute-~~blood~~ volume of the blood of patients affected with silicosis." Len, 1957. 14 pp 20 cm. (Min of Health RSFSR. Len Sanitary-Hygiene Med Inst), 200 copies (KL, 24-57, 121)

KAREVA A.I.

USSR/Human and Animal Physiology - Circulation. V-4

Abs Jour : Ref Zhur - Biol., No 2, 1958, 8560

Author : A.I.Kareva

Inst : The Leningrad Medical Institute of Sanitation and Hygiene

Title : A Roentgenokymographic Study of Stroke and Instantaneous Volumes in Patients with Silicosis

Orig Pub : Abstracts of Doctoral Dissertations in Medicine, Leningrad Medical Institute of Sanitation and Hygiene, Leningrad, 1957.

Abstract : No abstract.

Card 1/1

KAREVA, A.I.

Use of a functional load in studying certain hemodynamic indexes in silicosis. Trudy LSGMI 40:284-299 '58. (MIRA 12:8)

1. Kafedra rentgenologii i meditsinskoy radiologii Leningradskogo sanitarno-gigiyenicheskogo meditsinskogo instituta (zav. kafedroy - prof.B.M.Shtern).

(EXERCISE, effects,
on hemodynamic indices in silicosis (Rus))
(SILICOSIS, physiology,
hemodynamic changes in phys. stress (Rus))
(BLOOD CIRCULATION,
hemodynamic reactions to phys. stress in silicosis (Rus))

KAREVA, A.I.

Radiographic study of the heart in silicosis. Trudy LSGMI 53:230-251 '59. (MIRA 13:10)

1. Kafedra rentgenologii s meditsinskoy radiologiyey Leningradskogo sanitarno-gigiyenicheskogo meditsinskogo instituta (zav. kafedroy - prof. B.M. Shtern) i Kafedra gigiyeny truda s klinikoy professional'nykh zabolevaniy Leningradskogo sanitarno-gigiyenicheskogo meditsinskogo instituta (zav. kafedroy - prof. Ye.TS. Andreyeva-Galanina).
(HEART--RADIOGRAPHY) (LUNGS--DUST DISEASES)

KAREVA, A.I.

Roentgenokymographic studies on the functional condition of the heart in mold breakers. Gig.i san. 26 no.1:85-90 Ja '61.
(MIRA 14:6)
(VIBRATION--PHYSIOLOGICAL EFFECT) (HEART--RADIOGRAPHY)
(FOUNDRYMEN--DISEASES AND HYGIENE)

KAREVA, A.I., kand.med.nauk (Leningrad, V.O.-106, Nalichnyy per. d.16/25, kv.19), KOLLO, R.M.

X-ray changes in the lungs under the influence of soot. Vest. rent. i rad. 36 no.5:40-42 S-O '61. (MIRA 15:1)

1. Iz kafedry rentgenologii (zav. - prof. B.M.Shtern) i kafedry gigiyeny truda s klinikoy professional'nykh bolezney (zav. - prof. Ye.TS. Andreyeva-Galanina) Leningradskogo sanitarno-gigiyenicheskogo meditsinskogo instituta (dir. - prof. A.Ya.Ivanov).
(LUNGS--RADIOGRAPHY) (SOOT--PHYSIOLOGICAL EFFECT)

KAREVA, A.I., kand.med.nauk

Case of calcification of a benign gastric tumor. Vest. rent. i rad. 38 no.1:66 Ja-F'63. (MIRA 16:10)

1. Iz kafedry rentgenologii (zav. - prof. B.M.Shtern) Leningradskogo sanitarno-gigiyenicheskogo meditsinskogo instituta (dir. - prof. A.Ya.Ivanov).

*

PAVLOV, Vl.; KAREVA, G.

Drying of high-ballast lignite in the steam-tubular and gas-barrel driers. Izv Inst energ BAN 2:5-57 '62.

KAVERINA, N.V.; KAREVA, G.F.

Effect of adrenaline and noradrenaline on cardiac vessels. Farm.i toks. 23 no.6:516-521 N-D '60. (MIRA 14:3)

1. Laboratoriya chastnoy farmakologii (zav. - deystvitel'nyy chlen AMN SSSR prof. V.V.Zzkusov) Instituta farmakologii i khimioterapii AMN SSSR.

(ADRENALINE) (ARTERENOL)
(CORONARY VESSELS)