SOV/137-57-1-1626

Translation from: Referativnyy zhurnal. Metallurgiya, 1957, Nr 1, p 216 (USSR)

AUTHORS: Ol'shanova, K. M., Petrova, M. A.

TITLE: Quantitative Determination of Copper by the Method of Precipitation Chromatography (Kolichestvennoye opredeleniye medi metodom osadochnoy khromatografii)

PERIODICAL: Tr. Mosk. tekhnol. in-t myas. i moloch. prom-sti, 1956, Nr 6, pp 184-187

ABSTRACT: The chromatographic column is filled with an intimate mixture of Al_2O_3 and $K_4[Fe(CN)_6]$ in a 100:1 ratio. The solution containing Cu^{2+} (without Zn^{2+} and Fe^{3+}) is neutralized with alkali up to the appearance of cloudiness, which is dissolved with 1 or 2 drops of 2N CH_3COOH (pH 5). 1 cc of the Cu^{2+} solution is introduced into the column. After filtration, the length of the red-brown band of $Cu_2[Fe(CN)_6]$ is measured and the concentration of Cu^{2+} in g-equiv/liter is determined on the curve. The curve is plotted in accordance with the lengths of the bands and concentrations of Cu^{2+} in g-equiv/liter from 0.01 to 0.0005 N. Zn^{2+}, Fe^{3+}, and high acidity impede the determination. P. K.

Card 1/1

Name: OL'SHANOVA, Kaleriya Maksimovna

Dissertation: The chromatographical method in qualitative analysis

Degree: Doc Chem Sci

Affiliation: Moscow Technological Inst of Meat and Dairy Industry

Defense Date, Place: 2 Jun 55, Council of Inst of Physical Chemistry, Acad Sci USSR

Certification Date: 16 Mar 57

Source: BMVO 13/57

5(2)
AUTHORS: Ol'shanova, K. M., Morozova, N. M. SOV/153-58-2-11/[illegible]

TITLE: Chromatographic Method of Determining Copper and Nickel (Khromatograficheskiy metod opredeleniya medi i nikelya)

PERIODICAL: Izvestiya vysshikh uchebnykh zavedeniy. Khimiya i khimicheskaya tekhnologiya, 1958, Nr 2, pp 63 - 69 (USSR)

ABSTRACT: The problem of the precipitation chromatography has hitherto not been paid the attention it deserves, although it may successfully be used for analytical purposes. The separation of elements with a precipitation-chromatographic column is based on the different values of the solubility product of the precipitations. A certain dependence between the width of the forming zone and the concentration of the investigated solution may be found. The task of the present paper is the working out of determination methods for the metals mentioned in the title. For this purpose the authors investigated characteristically colored copper compounds that are difficult to solve with dithio-oxamic acid as well as nickel compounds

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with dimethyl glyoxime. The column for the precipitation-chromatogram is formed by a mixture of a carrier (a highly disperse substance) and a precipitator (substances that form precipitations with the ions to be investigated, which are difficult to solve). Unhydrous aluminum oxide type "ch", K-4, F-1, series 20, 1955, activated charcoal, silicagel, glass and rice powder, starch, river sand, etc. were used as carriers. Later only unhydrous aluminum oxide was used. Different weight relations between the carrier and the precipitator were tried. The experimental results with aluminum oxide without precipitator made the authors think that aluminum oxide has an exchange capacity, and that the ion exchange in this case highly influences the formation and the length of the zone of the precipitation-chromatogram. When the precipitator is present in a larger quantity (more then 1%) the influence of the ion exchange is much less marked. These assumptions were proved by the distribution of the copper ions by means of the radioactive indicator Cu^{64}. The

experiments showed that the colored zones are more marked the better the sorptive properties of the carrier are. The length of the zone of the chromatogram changes(under the same other conditions) according to the granular size of the carrier. This zone elongates if the grains are bigger. The length of the zone also changes according to the diameter of the column. Calibration curves, if they are plotted on the corresponding coordinates, can be investigated only with columns of the same diameter. Furthermore, the dependence between the volume and the precipitations formed and the concentration of the metal salts on different types of Al_2O_3 were studied. Aluminum oxide not produced at the same time has a different exchange capacity, so that the length of the zones and the volume of the precipitations formed(under otherwise the same conditions) are different. The higher the exchange capacity of the sorbent the smaller the length and the circumference of the zone. (Calibration curves figures 1,2). The copper and nickel determination methods were characterized by comparison. It was

Chromatographic Method of Determining Copper and Nickel SOV/153-58-2-11/30

shown that the precipitation-chromatographic method secures a more rapid determination of these metals in solution with minimum consumption of reagents. There are 4 figures and 1 table.

ASSOCIATION: Moskovskiy tekhnologicheskiy institut myasnoy i molochnoy promyshlennosti (Moscow Technological Institute for Meat and Dairy Industry) Kafedra analiticheskoy khimii (Chair of Analytical Chemistry)

SUBMITTED: September 14, 1957

Card 4/4

5(4), 5(2)

AUTHORS: Kopylova, V. D., Ol'shanova, K. M. SOV/153-58-3-8/30

TITLE: On the Influence Exerted by the Composition of the Solution Upon the Formation of Precipitation Chromatograms (Vliyaniye sostava rastvora na obrazovaniye osadochnykh khromatogramm)

PERIODICAL: Izvestiya vysshikh uchebnykh zavedeniy, Khimiya i khimicheskaya tekhnologiya, 1958, Nr 3, pp 46 - 51 (USSR)

ABSTRACT: The separation of substances in precipitation chromatograms occurs in consequence of several repititions of the principal process of precipitate formation and dissolution. A chromatogram is thus formed: The zone localization in it is determined by the product of the ion activity of the resulting precipitates (Refs 1,2). To make clear the question of the separability of two substances by means of precipitation chromatography and to choose optimum separation conditions the ratio of the concentrations of the substances to be chromatographed must be computed at the time of the easier soluble precipitate. The

computation can be performed in a general way according to equation (2); but it can be considerably simplified if instead of the ion activity their molar concentrations are used. In general, the resulting precipitate is rendered impure by co-precipitated substances. Under conditions of the precipitation chromatographic column the effect of some co-precipitation processes can be reduced practically to zero; others, however, may increase their influence. The quantity of the co-precipitated admixtures and the character of the process as well as the completeness of the zone separation in the chromatograms depend on the composition and microstructure of the precipitate, on the composition of the solution to be chromatographed as well as on the concentrations of the ions contained in it, finally on the quantity of the precipitant in the column. It is most probably due to these factors that a frequent incomplete or a completely suppressed separation of zones, even in the case

of precipitates the solubility of which is considerably deviating from one another. It is the aim of the present paper to make clear under which conditions the most complete separation of zones can be attained. The experiment was carried out both with and without radioactive indicators. The cations investigated: hydroxides: Fe^{3+}, Fe^{2+}, Cr^{3+}, Co^{2+}, Ni^{2+}, Mn^{2+} and Ag^{+}; phosphates: Fe^{3+}, Fe^{2+}, Cr^{3+}, Co^{2+}, Ni^{2+}, Ni^{2+}, Mn^{2+} and Zn^{2+}; iodides: Hg^{2+}, Hg_2^{2+}, Ag^{+}, Pb^{2+} are presented in a table. It can be seen from the table that the clearness of the precipitation chromatogram increases with decreasing solubility of the precipitates at the same concentration of the ion to be chromatographed. This concerns experiments without radioactive indicators. A good separation is observed if the respective solubilities are deviating considerably from each other. For hydroxides, for instance, the difference must be the 100-fold.

Otherwise no zone separation at all or only a partial one takes place. The use of radioisotopes has shown that a visual zone separation in chromatograms is by no means indicative of their absolute separation. This is due to the contamination by co-precipitation of other ions contained in the solution. An absolute separation is never attained, not even if sharp edges can be seen. In all cases the upper zones contain impurities of other ions which yield easier soluble precipitates. The length of the zones and the intensity of their coloration increases with the increasing concentration of the solution to be chromatographed. The increase in the concentration of the hydrogen ions (pH) causes, in general, a lengthening of the zones, but reduces the clearness of them (Fig 3). The chromatograms are thus shifted downwards in the column (Fig 3, curves 2 and 3) and become indistinct. The authors try to explain these phenomena. There are

On the Influence Exerted by the Composition of the Solution Upon the Formation of Precipitation Chromatograms SOV/153-58-3-8/30

3 figures, 1 table and 5 Soviet references.

ASSOCIATION: Moskovskiy tekhnologicheskiy institut myasnoy i molochnoy promyshlennosti (Moscow Technological Institute of Dairy and Meat Industry) Kafedra analiticheskoy khimii (Chair of Analytical Chemistry)

SUBMITTED: September 19, 1957

Card 5/5

75-13-2-2/27

AUTHORS: Ol'shanova, K. M., Chmutov, K. V.

TITLE: Chromatographic Method in Qualitative Analysis (Khromatograficheskiy metod v kachestvennom analize) IV. The Analysis of Cations of the Third Analytical Group (IV. Analiz kationov tret'yey analiticheskoy gruppy)

PERIODICAL: Zhurnal Analiticheskoy Khimii, 1958, Vol. 13, Nr 2, pp. 162-171 (USSR)

ABSTRACT: In a previous paper (Ref 1) report was given on the arrangement of cations and anions of each single group in the adsorption series according to the degree of their adsorption on some adsorbents. Furthermore, methods were worked out for the qualitative chromatographic analysis of cations of the fourth and fifth analytical group on aluminum oxide as adsorbent (Refs 2, 3). In the present paper the qualitative chromatographic analysis of cations of the third analytical group on aluminum oxide as adsorbent is worked out. The cations Fe^{3+}, Co^{2+}, Ni^{2+} and Cr^{3+} can be proved immediately on the adsorbent: aluminum oxide and permutite. On sulfonite only Fe^{3+} can be proved, whereas the other cations form dim zones

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Chromatographic Method in Qualitative Analysis. IV. The Analysis of Cations of the Third Analytical Group

with respect to coloration. Al^{3+}, Fe^{2+}, Mn^{2+} and Zn^{2+} cannot be proved without development on the adsorbents. Nickel can be proved on aluminum oxide only in the case of absence of Co^{2+}-ions in the solution, since this is adsorbed in the same zone as Ni^{2+}. The same applies in the case of Fe^{3+} and Cr^{3+}. The detection limit for the proof on aluminum oxide without development lies for Fe^{3+} at 5,4 γ, for Co^{2+} at 35,0 γ, for Ni^{2+} at 35,0 γ and for Cr^{3+} at 30,0 γ.
The authors showed that the cations of the third analytical group can be proved chromatographically on aluminum oxide, permutite, and sulfonite as adsorbents by means of various generators and precipitants. Solutions of ammonium thiocyanate, lye, dithionic acid, potassium chromate, nitric ammonium--tetrathiocyanate-mercuroate $(NH_4)_2[Hg(SCN)_4]$ and ammonia served here as developer. The solutions of caustic soda and potassium chromate were used as precipitants. In a comparison between the precipitation chromatographs and the ionite--chromatographs it was found that there is almost no difference in the coloration of the zones, the precipitation chromatographs have, however, better marked boundaries of the colored zones. Also a qualitative chromatographic method was

79-13-2-2/27

Chromatographic Method in Qualitative Analysis. IV. The Analysis of Cations of the Third Analytical Group

worked out for the analysis of the cations of the third analytical group on aluminum oxide as adsorbent by means of which these cations can be proved within 8-10 minutes. The detection limit for the proof of each single cation of the third group on aluminum oxide is given. Furthermore a comparing characteristic of the qualitative methods for the proof of the cations of the third group are given in solution in the paper. The chromatographic method permits the determination of all cations within a shorter time. Only a small quantity of reagents and a very small volume of sample solution is necessary for this purpose; furthermore, this method is more sensitive than other methods. The experimental carrying out of the analysis is described precisely. There are 10 tables and 6 references, 6 of which are Soviet.

ASSOCIATION: Institut fizicheskoy khimii AN SSSR, Moskva
(Moscow Institute for Physical Chemistry, AS USSR)

SUBMITTED: December 25, 1955

1. Ions--Chromatographic analysis 2. Aluminum oxides--Adsorption

Card 3/3

SOV-69-58-4-9/18

AUTHORS: Kopylova, V.D., Ol'shanova, [illegible]

TITLE: Secondary Phenomena in Precipitation Chromatograms of Various Compounds (Vtorichnyye yavleniya v osadochnykh khromatogrammakh razlichnykh soyedineniy)

PERIODICAL: Kolloidnyy zhurnal, 1958, Vol XX, Nr 4, pp 456-460 (USSR)

ABSTRACT: In the precipitation chromatography, more often than in other forms of chromatographic analysis, a change of chromatograms with time takes place. These changes consist of the smoothening of the zone boundaries, the formation of new zones, the downward movement of the zones, etc. In order to study the laws of these changes in the article, the secondary effects in precipitation chromatograms of phosphates, chromates, hydroxides of various cations, etc. were investigated. In several of the experiments radioactive indicators were applied in a chlorvinyl pipe, either in the precipitating substance or in the chromatographed solution. The ratio between isotopic material and the dry matter in which it was contained was then determined. The most characteristic changes in the precipitation chromatograms were the following:smoothing of the zone boundaries; increase of the initial length of the zone; change of the color of the chromatogram due to different oxidation and reduction

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Secondary Phenomena in Precipitation Chromatograms of Various Compounds

reactions. Experimental results show that with an increase in the concentration of the precipitating agent, the speed of the change of the zone length decreases, the speed of boundary smoothening decreases also, but the speed of color change increases. An increase of the concentration of the chromatographed solution causes an increase of the speed of boundary smoothening, and of the speed of zone length change. An increase of temperature leads to an increase of the speed of change in the precipitation chromatograms. The radioactive isotopes P^{32}, Co^{65}, Fe^{59}, Hg^{203} were used in the investigation. An analysis of the results indicates that the distribution of the chromatographed ion and of the precipitating agent changes with time. The change of the distribution of the precipitating agent in the column consists in an upward movement in the column. The concentration of the chromatographed ion in the zone decreases with time, which leads to an increase of the length of the initial zone. The smoothening of boundaries and the increase of zone length is explained by the diffusion of the chromatographed ion. The investigation permits the explanation of the secondary effects in many cases as well as

Secondary Phenomena in Precipitation Chromatograms of Various Compounds

the regulation of these processes by changing the conditions causing the secondary effects. The results may also be used for explaining secondary effects in molecular and ion exchange chromatograms.
There are 3 diagrams and 2 Soviet references.

ASSOCIATION: Moskovskiy tekhnologicheskiy institut myasnoy i molochnoy promyshlennosti (Moscow Technological Institute of the Meat and Milk Industry)

SUBMITTED: February 25, 1957

1. Chromatographic analysis--Theory

OL'SHANOVA, K., prof.; KOPYLOVA, V., kand.khim.nauk; BAT-OCHIR, A., inzh.

Chromotographic method for determining chloride content in meat. Mias. ind. SSSR 29 no.5:51-53 '58. (MIRA 11:10)

1. Moskovskiy tekhnologicheskiy institut myasnoy i molochnoy promyshlennosti.
(Meat--Analysis) (Chlorides--Analysis)

OLSHANOVA, K.M.

5(2),5(3) PHASE I BOOK EXPLOITATION SOV/2554

Akademiya nauk SSSR. Otdeleniye khimicheskikh nauk. Komissiya po khromatografii

Issledovaniya v oblasti ionoobmennoy, raspredelitel'noy i osadochnoy khromatografii (Studies in the Field of Ion Exchange, Distribution and Precipitation Chromatography) Moscow, Izd-vo AN SSSR, 1959. 190 p. Errata slip inserted. 3,500 copies printed.

Ed. of Publishing House: N.G. Yegorov; Tech. Ed.: I.N. Guseva; Editorial Board: K.V. Chmutov, Corresponding Member, USSR Academy of Sciences (Resp. Ed.); F.M. Shemyakin, Professor; K.M. Saldadze, Docent; and M.M. Tunitskiy, Professor.

PURPOSE: This book is intended for chemists and chemical engineers.

COVERAGE: The book discusses studies in ion-exchange, distribution, and precipitation chromatography. Various problems of the theory of chromatography and its application are also considered. This is the 4th collection of articles published by the Committee on Chromatography. The first collection was published in 1952 under the title "Issledovaniya v oblasti khromatografii" (Studies in the Field of Chromatography); the second was published in 1955 under the title "Teoriya i praktika proyavitel'nogo khromatograficheskogo analiza" (Theory and Practice of the Use of Ion-exchange Materials); and the third was published in 1957 under the title "Issledovaniya v oblasti ionoobmennoy khromatografii" (Studies in the Field of Ion-exchange Chromatography). No personalities are mentioned. References are given after most of the articles.

AUTHORS: Ol'shanova, K. M., Morozova, N. M. SOV/153-2-4-6/32

TITLE: Fractional Discovery of Several Rare Elements By Means of the Chromatographic Method

PERIODICAL: Izvestiya vysshikh uchebnykh zavedeniy. Khimiya i khimicheskaya tekhnologiya, 1959, Vol 2, Nr 4, pp 498 - 502 (USSR)

ABSTRACT: The authors attempted to investigate the method mentioned in the title on chromatographing aluminum oxide. Since the elements investigated may be combined with various elements in natural mixtures, chromatograms of the solutions of mixtures of various cations were investigated. The solutions were composed in accordance with the presupposition in such a way that a complex cation mixture could be separated according to various degrees of sorption. Therefore, the mixtures were composed of adjacent elements in the sorption sequence. The authors succeeded in considerably supplementing the sorption sequence of cations (Ref 1) by rare elements. These are subsequently shown in brackets: $H^+ > [As^{3+}] > Sb^{3+} > Sn^{2+} = Bi^{3+} = [Ge^{4+}] > Hg_2^{2+} > [Th^{4+}] = Cr^{3+} = Fe^{3+} = Hg^{2+} > UO_2^{2+} > Pb^{2+} > [In^{3+}] > Cu^{2+} > [Nd^{3+}] > Ag^+ > Mg^{2+} > Zn^{2+} > Co^{2+} = Ni^{2+} = Cd^{2+} = Fe^{2+} = Ba^{2+} > Mn^{2+} = Tl^+ > Sr^{2+} > Ca^{2+} > K^+ = [Rb^+] = [Li^+] > [Cs^+] > NH_4^+$. In accordance

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Fractional Discovery of Several Rare Elements By Means of the Chromatographic Method SOV/153-2-4-6/32

with the sorption sequence fixed by several elements, chromatograms of rare elements were obtained in combination with other cations. In addition, the analysis in connection with the discovery of the following metals and ions is described: Cerium: in the presence of bismuth and copper ; of tin (IV); of mercury (I) and bismuth; of tin (IV), bismuth, mercury (I and II), and iron; of bismuth, antimony (III), and arsenic (III). Discovery of indium ions: in the presence of cobalt; of zinc; of mercury (I and II) , and lead; of iron (III). Discovery of ions UO_2^{2+} in the presence of cerium; of mercury (I and II), and iron (III); of copper. Discovery of thallium ions: in the presence of : copper; of mercury (I and II); of indium; of cerium; of cobalt, nickel, cerium, and lead; of uranyl and zirconyl. Discovery of zirconyl ions: in the presence of mercury (II); of zinc; of copper; of iron (III); of cobalt; of uranyl ions. Discovery of thorium ions: in the presence of lead; of cobalt; of uranyl ions; of iron (III). Discovery of neodymium ions: in the presence of mercury (II); of lead; of copper, silver, and cobalt; of nickel; of iron (III); of cadmium. There is 1 Soviet reference.

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Fractional Discovery of Several Rare Elements By Means of the Chromatographic Method SOV/153-2-4-6/32

ASSOCIATION: Moskovskiy tekhnologicheskiy institut myasnoy i molochnoy promyshlennosti, Kafedra analiticheskoy khimii (Moscow Technological Institute of Meat- and Milk Industry, Chair of Analytical Chemistry)

SUBMITTED: March 28, 1958

Card 3/3

MOROZOVA, N.M.; OL'SHANOVA, K.M.

Application of ion exchange processes in the dairy industry. Izv.vys.ucheb.zav.; pishch.tekh. no.5:63-67 '60. (MIRA 13:12)

1. Moskovskiy tekhnologicheskiy institut myasnoy i molochnoy promyshlennosti. Kafedra analiticheskoy khimii.
(Dairy industry) (Ion exchange)

OL'SHANOVA, K.M., prof.; STOROZHENKO, G., red.; PAEGLIS, Ya., tekhn. red.

[Use of ion exchaners in industry] Primenenie ionitov v promyshlennosti. Riga, TSentr. biuro tekhn.informatsii Latviiskoi SSR, 1961. 27 p. (MIRA 15:4)

1. Moskovskiy tekhnologicheskiy institut myasnoy i molochnoy promyshlennosti (for Ol'shanova).
(Ion exchange resins)

MOROZOVA, N.M.; OL'SHANOVA, K.M.

Chromatographic method of analyzing heavy metals in dairy products. Izv.vys.ucheb.zav.; pishch.tekh. 1:130-135 '61. (MIRA 14:3)

1. Moskovskiy tekhnologicheskiy institut myasnoy i molochnoy promyshlennosti, Kafedra analiticheskoy khimii.
(Dairy products—Analysis and examination)
(Metals—Analysis)

OL'SHANOVA, K.M.

Chromatographic method for determining mercury. Izv.vys.ucheb. zav; khim.i khim.tekh. 4 no.5:734-737 '61. (MIRA 14:11)

1. Moskovskiy tekhnologicheskiy institut myasnoy i molochnoy promyshlennosti, kafedra neorganicheskiy i analiticheskoy khimii.

(Mercury--Analysis)

OL'SHANOVA, K.M.; KOPYLOVA, V.D.; MOROZOVA, N.M.

Determination of the concentration of inorganic ions from the zone length or volume in precipitation chromatograms. Izv.vys. ucheb.zav.; khim.i khim.tekh. 4 no.6:923-927 '61. (MIRA 15:3)

1. Moskovskiy tekhnologicheskiy institut myasnoy i molochnoy promyshlennosti, kafedra neorganicheskoy i analiticheskoy khimii.
(Chromatographic analysis)

OL'SHANOVA, K.N., doktor khim.nauk; POTAPOVA, M.A., kand.khim.nauk; FROLOVA, O.V., kand.tekhn.nauk; SELIVERSTOVA, L.Ya.

Recovery of anion exchanging substances after neutralization and purification of sunflower seed and castor oils. Masl.-zhir. prom. 27 no.9:10-11 S '61. (MIRA 14:11)

1. Moskovskiy tekhnologicheskiy institut myasnoy i molochnoy promyshlennosti (for Ol'shanova, Potapova, Frolova). 2. Moskovskiy gidrozavod (for Seliverstova).
(Sunflower seed oil) (Castor oil)

KOPYLOVA, V.D.; MOROZOVA, N.M.; OL'SHANOVA, K.M.

Organic reagents as indicators in precipitation chromatograms. Izv.vys.uchab.zav.; khim.i khim.tekh. 5 no.1:22-25 '62. (MIRA 15:4)

1. Moskovskiy tekhnologicheskiy institut myasnoy i molochnoy promyshlennosti, kafedra neorganicheskoy i analiticheskoy khimii.
(Chromatographic analysis) (Chemical tests and reagents)

SALDADZE, K.M.; OL'SHANOVA, K.M.; FROLOVA, G.V.

Molecular sorption of some hydroxyacids and their salts on cation exchangers. Izv.vys.ucheb.zav.;khim.i khim.tekh. 5 no.2:272-276 '62. (MIRA 15:3)

1. Moskovskiy tekhnologicheskiy institut myasnoy i molochnoy promyshlennosti, kafedra neorganicheskoy i analiticheskoy khimii.
(Acids) (Sorption) (Ion exchange)

KUZNETSOVA, M.N.; POTAPOVA, M.A.; SAIDADZE, K.M.; OL'SHANOV, K.M.

Desorption of ions from ion exchangers studied by electrodialysis. Izv.vys.ucheb.zav.;khim.i khim.tekh. 5 no.3:418-422 '62. (MIRA 15:7)

1. Moskovskiy tekhnologicheskiy institut myasnoy i molochnoy promyshlennosti, kafedra analiticheskoy khimii.
(Desorption) (Ion exchange) (Electrodialysis)

QL'SHANOVA, Kaleriya Maksimovna; KOPYLOVA, Valentina Dmitriyevna; MOROZOVA, Nadezhda Mikhaylovna; CHMUTOV, K.V., otv. red.; VLASOV, L.G., red.; MAKOGONOVA, I.A., tekhn. red.

[Precipitation chromatography]Osadochnaia khromatografiia. Moskva, Izd-vo Akad.nauk SSSR, 1963. 103 p. (MIRA 16:2)

1. Chlen-korrespondent Akademii nauk SSSR (for Chmutov).
(Chromatographic analysis)

S/032/63/029/001/003/022
B101/B186

AUTHORS: Ol'shanova, K. M., Morozova, N. M., and Kopylova, V. D.

TITLE: Determination of microamounts of inorganic ions

PERIODICAL: Zavodskaya laboratoriya, v. 29, no. 1, 1963, 24 - 26

TEXT: The limiting concentration at which an inorganic ion ceases to give a chromatographic color reaction is determined. Next, the solution under investigation is diluted until the element concerned gives no reaction. The concentration of the element in the sample is calculated from the required degree of dilution and the known limiting concentration. A glass column 10-13 cm long and of 4-5 mm diameter filled with Al_2O_3 is used. The following elements, developers for the chromatogram, and limiting concentrations (mg-equ/liter) are given: Cu(II), rubeanic acid, $4.7 \cdot 10^{-2}$; Ni, rubeanic acid, $7.3 \cdot 10^{-3}$; Ni, dimethyl glyoxime, $1.1 \cdot 10^{-3}$; Fe(III), potassium ferrocyanide, $3.8 \cdot 10^{-3}$; Ag, potassium chromate, $9.2 \cdot 10^{-2}$; Hg(II), potassium chromate, $7.6 \cdot 10^{-2}$; Zn, ammonium tetrathiocyano mercuroate in the

Card 1/2

Determination of microamounts of ...

the presence of cobalt ion, 0.26; Pb, sodium rhodizonate, $2.5 \cdot 10^{-3}$; Pb, potassium chromate, 1.0; Sn, potassium xanthogenate, 0.23; Co, α-nitroso-β-naphthol, $4.7 \cdot 10^{-4}$; Cl^-, $Hg(NO_3)_2$, $5 \cdot 10^{-2}$. The method is recommended for industrial analyses. There is 1 table.

ASSOCIATION: Moskovskiy tekhnologicheskiy institut myasnoy i molochnoy promyshlennosti (Moscow Technological Institute of the Meat and Milk Industry)

OL'SHANOVA, Kaleriya Maksimovna; POTAPOVA, Mariya Aleksandrovna; KOPYLOVA, Valentina Dmitriyevna; MOROZOVA, Nadezhda Mikhaylovna; DEBABOV, V.G., red.

[Manual on ion-exchange, partition, and precipitation chromatography] Rukovodstvo po ionoobmennoi, raspredelitel'noi i osadochnoi khromatografii. Moskva, Khimiia, 1965. 199 p. (MIRA 18:7)

OL'SHANOVA, Ye., prof.; MOROZOVA, N.; MUROMTSEVA, G.

Chromatographic method for determining the tin content of canned meat. Mias.ind.SSSR 32 no.2:47-48 '61. (MIRA 14:7)
(Meat, Canned—Preservation) (Chromatographic analysis)

25596
S/048/62/026/003/004/015
B107/B102

18.1152

AUTHORS: Ol'shanskaya, E. Ya., Nekrasov, Yu. V., and Umanskiy, Ya. S.

TITLE: Examination of order in the alloy W + 44 atom% Mo by measuring the diffuse X-ray scattering

PERIODICAL: Akademiya nauk SSSR. Izvestiya. Seriya fizicheskaya, v. 26, no. 3, 1962, 349-351

TEXT: The degree of order in the alloy W + 44% Mo at 1100, 1350, and 1700°C was studied. A УРС-50И (URS-50I) diffractometer and CuK_α radiation monochromatized by a plane germanium crystal, were used for the examination. Radiation was recorded with an МСТР-4 (MSTR-4) argon counter. The angular range from 8 to 20° was measured; scattering from air was eliminated by the use of a vacuum chamber (Ref. 1: A. S. Kagan, V. A. Somenkov, Ya. S. Umanskiy, Kristallografiya, 5, 468 (1960)). Temperature effect, Compton effect, and Bragg scattering were mathematically eliminated. Ground samples with etched surfaces were used for the examination, since absorption was considerable. The intensity distribution was determined experimentally. The curve for 1700°C was calculated from

Card 1/3

S/048/62/026/003/004/015
B107/B102

Examination of order in the ...

$$I = Nc_A c_B (f_B - f_A)^2 \sum_s \alpha_i \frac{\sin Sr_i}{Sr_i}.$$

The short-range order coefficients α_i resulting from it, are given numerically. The positive signs of α_1 and α_2 show the atoms of the same type to prevail in the neighborhood of one atom, i.e. the Mo - W system tends to segregate. Furthermore, the radial distribution of the atom density of tungsten was determined from the formula

$$f(r) = \frac{2r^2}{\pi} \sum_s S^2 \varphi(S) \frac{\sin Sr}{Sr} \Delta S.$$

In general, the results of Fig. 2 agree with those of the first method. The additional minimum between r_3 and r_4 is explained by the fact that the upper limit of integration, S_0, is 2.6 instead of ∞ (Ref. 4, see below). The degree of order increases slightly as temperature decreases, but still is very low at all temperatures. The mixing energy appears to be very low: it is 0.079 ev for 1700°C according to Ref. 5 (M. A. Krivoglaz, A. A.

Card 2/3

OLISHANSKAYA, L.

Mechanized molding. MTO 2 no.11:36 N '60. (MIRA 13:11)
(Molding(Founding)--Technological innovations)

OL'SHANSKAYA, L. A.

BLOKH, G.A., kandidat tekhnicheskikh nauk, dotsent; KORMIL'TSEVA, Z.P.; OL'SHANSKAYA, L.A., inzhener; KOLOBENIN, V.N., inzhener.

Investigation of the diffusion of sulfur in cable rubber by means of radioactive isotopes. Vest.elektroprom. 27 no.6: 66-68 Je '56. (MLRA 10:8)

1.Dnepropetrovskiy khimiko-tekhnologicheskiy institut (for Blokh and Kormil'tseva). 2.Zavod "Azovkabel" Ministerstva elektrotekhnicheskoy promyshlennosti (for Ol'shanskaya and Kolobenin).
(Rubber) (Sulfur)
(Radioisotopes--Industrial applications)

110-58-6-12/22

AUTHORS: Blokh, G.A., Candidate of Technical Sciences, Kogen, V.B. and Ol'shanskaya, L.A., Engineers

TITLE: On the Vulcanisation of Rubber Mixtures for Cables (K voprosu o vulkanizatsii kabel'nykh rezinovykh smesey)

PERIODICAL: Vestnik Elektropromyshlennosti, 1958, [illegible], Nr 6, pp 54 - 55 (USSR).

ABSTRACT: The work on which this article was based was done by the Works and the Institute in collaboration. Recent researches by Scheele and others (German) into the mechanism of vulcanisation by tetramethyl thiuramdisulphide (thiuram) and by Dogadkin and others on the action of zinc and vulcanisation with dibenzothiazoldisulphide (Al'taks) are of particular interest in connection with insulating rubbers for which carbon black is not used. A study was made of vulcanisation by Al'taks in these rubbers in which chalk and talc are used as filters. The study includes various insulating rubbers; the results of the physical and mechanical tests are given in Table 1. Al'taks cannot fully replace thiuram because the properties of the rubber are than impaired but if these materials are used in the ratio of 1:1, the properties are acceptable.

The effect of zinc oxide in accelerating vulcanisation is well

Card1/2

known. Recent work of Dogadkin and Benisk have shown that zinc oxide promotes the formation of strong sulphur cross-links in the rubber. A study was made of the physical and mechanical properties of cable-sheath rubber in which the content of zinc oxide ranged from 0 to 3% and the content of manganese oxide was kept constant: the results are given in Tables 2 and 3. A number of cable specimens were made up with rubber of reduced zinc-oxide content and had properties conforming to standard GOST 2068-54. Therefore, the zinc content commonly used could be reduced.
There are 3 tables and 3 references, 2 of which are Soviet and 1 German.

ASSOCIATION: Dnepropetrovskiy khimiko-tekhnologicheskiky institut (Dnepropetrovsk Chemico-technological Institute) and Zavod Azovkabel' (Azovkabel' Works)

SUBMITTED: July 10, 1957

Card 2/2 1. Vulcanizates--Physical properties 2. Vulcanization --Materials

S/110/60/000/009/002/008
E021/E455

AUTHORS: Ovcharenko, F.D., Corresponding Member AS UkrSSR,
Blokh, G.A., Candidate of Technical Sciences,
Ol'shanskaya, L.A., Engineer and
Gudovich, N.V., Candidate of Chemical Sciences

TITLE: Pyrophillite - A New Filler for Cable Rubbers

PERIODICAL: Vestnik elektropromyshlennosti, 1960, No.9, pp.5-8

TEXT: The pyrophillite found in the Ukraine was studied as a possible dielectric filler for cable rubber. Physico-chemical tests showed that it consisted of 85% finely dispersed pyrophillite with 15% quartz and a trace of talc. The optical constants are close to those of talc. Experiments were carried out on the rubber КС-50 (KS-50) which contains 24.2% talc and 49% chalk. It was shown that replacing either or both talc and chalk by pyrophillite had no effect on the electrical characteristics. After five days soaking in water they were practically unchanged. Similar results were obtained when pyrophillite was substituted for fillers in other rubbers. Experiments were also carried out

S/110/60/000/009/002/008
E021/E455

Pyrophillite - A New Filler for Cable Rubbers

on the rubber KS-50 to find the effect on the physico-mechanical properties of the use of pyrophillite instead of the other fillers In particular, the stability after prolonged ageing at 12°C was investigated. Very similar results were obtained by using pyrophillite. Thus, using pyrophillite in quantities up to 50 to 60% results in satisfactory properties of the insulating rubber. The presence of rich sources of pyrophillite in the Ukraine have, therefore, a substantial technical and economic value. There are 6 tables and 2 Soviet references.

SUBMITTED: May 5, 1960

Card 2/2

VODOP'YANOV, K.A.; VOROZHTSOV, B.I.; OL'SHANSKAYA, N.I.

Effect of gamma radiation on the dielectric properties of some electric insulating materials. Part 4: Polyethylene. Izv. vys. ucheb. zav.p fiz. no.4:156-159 '60. (MIRA 13:9)

1. Sibirskiy fiziko-tekhnicheskiy institut pri Tomskom gosuniversitete im. V.V. Kuybysheva.
(Gamma rays) (Electric insulators and insulation)

80154
S/105/60/000/05/14/028
B007/B008

246820

AUTHORS: Vodop'yanov, K.A., Professor, Doctor of Technical Sciences, Vorozhtsov, B.I., Docent, Candidate of Physical and Mathematical Sciences, Potakhova, G.I., Candidate of Physical and Mathematical Sciences, Ol'shanskaya, N.I., Engineer

TITLE: The Electrical and Physical Properties of Technical Electric Insulation Materials When Subjected to Radioactive Irradiation

PERIODICAL: Elektrichestvo, 1960, No. 5, pp. 60-66

TEXT: Experimental data are given in the paper under review. The influence of gamma radiation on the electrical and physical characteristics of highly polymeric dielectrics, siliconorganic and phenol formaldehyde synthetic materials. Irradiation was carried out with a betatron (design by the Tomskiy politekhnicheskiy institut (Tomsk Polytechnic Institute)) with an energy of the gamma rays of 15 Mev and a dosage rate of 300-1200 r/min. The samples were irradiated at various temperatures (-60, +20, +60°C) and at tropical humidity (+40°C and relative humidity of the air of 98%). The following was determined on the basis of these experiments described here in detail. High-polymer dielectrics of the

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The Electrical and Physical Properties of Technical Electric Insulation Materials When Subjected to Radioactive Irradiation

polyethylene-, "Fluoroplast"-, and polystyrene type do not change the mechanism of the dielectric losses and the polarization at an irradiation with gamma rays of a dosage of up to 10^6 at room temperature. The absolute values of the dielectric constants, of the loss angle, and the electric strength remain unchanged. An increase of the electrical conductivity is observed in polyethylene on low-temperature irradiation, and a reduction on irradiation under tropical conditions. In the case of the "Steklotekstolit SKM-1" (organosilicon synthetic material), the greatest changes occur as a result of low-temperature irradiation and at tropical humidity. The loss angle and the dielectric constant change most in consequence of the irradiation in the range of low frequencies. The electrical conductivity and the ohmic part of the dielectric losses increase in organosilicon rubber after irradiation. An irradiation of raw rubber with gamma rays accelerates the vulcanizing process. An increase of the losses is observed at an irradiation with gamma rays of the phenol formaldehyde synthetic materials. The loss angle changes most after an irradiation at low temperatures and under tropical conditions. The dielectric constant and the electric strength of these synthetic materials do not change after an

Card 2/3

The Electrical and Physical Properties of Technical Electric Insulation Materials When Subjected to Radioactive Irradiation

irradiation with gamma rays under the conditions mentioned. It is stated on the basis of these experimental data that the radiation strength of electric insulation materials depends on the physical and chemical properties of the material and its structure, as well as on the exterior conditions during irradiation and investigation. The authors are of the opinion that the character of the polarization and the dielectric losses in one or the other temperature- and frequency range is the most important criterion for the radiation strength of the dielectric. It is necessary to know the temperature- and frequency characteristics of the dielectric constant and the angle of dielectric losses before expressing an opinion on the relative stability of the electric insulation material. The following persons took an active part in the experiments: V.D. Dedkov, Ye.A. Zimina, M.D. Lavrov, T.G. Mikhaylova, Ye.S. Nesmelova, T.B. Nedokos, L.A. Prudnikova, G.V. Sitozhevskaya and A.I. Tovbina. There are 16 figures.

ASSOCIATION: Sibirskiy fiziko-tekhnicheskiy institut pri Tomskom Gosudarstvennom universitete (Siberian Physics and Technology Institute at the Tomsk State University)

SUBMITTED: December 7, 1959

Card 3/3

OL'SHANSKAYA, N. I.

43537
S/196/62/000/023/004/006
E194/E155

15.8500

AUTHORS: Vodop'yanov, K.A., Vorozhtsov, B.I., Potakhova, G.I., Lavrov, M.D., Nesmelova, Ye.S., Nesterov, V.M., Vorozhtsova, I.G., Ol'shanskaya, N.I., Zimina, Ye.A., Mikhaylova, T.G., Sitozhevskaya, G.V., and Filatov, I.S.

TITLE: The influence of betatron radiation on the dielectric properties of certain electrical insulating materials

PERIODICAL: Referativnyy zhurnal, Elektrotekhnika i energetika, no.23, 1962, 12-13, abstract 23 B 67. (In collection: Elektron. uskoriteli (Electronic Accelerators), Tomsk, Tomskiy un-t, 1961, 308-318)

TEXT: The temperature and frequency characteristics of electrical insulating materials were investigated before and after γ-irradiation at dosages ranging from 10^4 to 2×10^5 rads with a dosage rate ranging from 300 to 1300 rads/minute at temperatures of -60, -20 and +60 °C and under tropical conditions (40 °C and relative humidity of 98%); the source of radiation was a

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15 MeV betatron. The characteristics of polyethylene were not altered by a radiation dose of 10^5 rads (the measurements were made at about 10^9 c/s). The low-frequency tan δ of plastic АГ-4 (AG-4) increased (particularly after irradiation under tropical conditions and at -60 °C) but the value in the frequency range 10^5 - 10^8 c/s did not alter. Evidently irradiation increases the resistive component of loss by conductivity and does not alter the relaxation components. Similar results were obtained for plastics К-114-35, К-211-3 and ФКПМ-25 (FKPM-25). In the case of textolite with a silicoorganic binder СКМ-1 (SKM-1), a dosage rate of 500 rads/min first increases the low-frequency tan δ only up to about 10^5 rads, and then diminishes it. Above 1200 rads/min the tan δ steadily decreases. It is possible that with heavy dosages and high dosage rates a process of binding together reduces the tan δ. In the silicoorganic resins 14Р-2 (14R-2), 14R-6 and 14R-15, dosage rates of 500 rads/min and a dosage of 10^5 rads cause a small increase in conductivity and tan δ at low frequency, but this change disappears as temperature curves are being taken, so that the shape of the reverse temperature curve coincides with that

The influence of betatron radiation.. S/196/62/000/023/004/006
E194/E155

for the non-irradiated material. Irradiation of varnishes K-47, 976-1, and MLM-16 (MGM-16) under various conditions caused no change in their electrical insulating properties. Irradiation of steatite ceramic (1% BaO, 91.6% Onot talc, 5.2% kaolin, 3.2% boracite) (with a dosage of 2 x 10^5 rads) did not alter the shape of the temperature curve of tan δ (measured at 10^7 c/s) either in weak fields (945 V/cm) or in strong (1890 V/cm). With a dosage of 2.12 x 10^7 rads, tan δ measured at 945 V/cm was not altered at low temperatures but increased appreciably at temperatures above 400 °C.
13 illustrations. 31 references.
[Abstractor's note: Complete translation.]

Card 3/3

43107
S/181/62/004/011/002/049
B102/B104

15.8530

AUTHORS: Nesterov, V. M., Nesmelova, Ye. S., Ol'shanskaya, N. I., Mikhaylova, T. G., and Potakhova, G. I.

TITLE: Reversible electrical effects produced by radiation in dielectrics

PERIODICAL: Fizika tverdogo tela, v. 4, no. 11, 1962, 3010 - 3017

TEXT: The authors investigated the behavior of the electrical parameters ε, $\tan\delta$, and σ of various rubber types, fluoroplastics, polyethylene, polychlorvinyl, quartz single crystals and ЭД-6(ED-6) compound before, during and after γ-irradiation under various temperature conditions. With doses of 10^5 - 10^6 rad the maximum irradiation intensity was 10-15 r/sec. Up to doses of 10^6 rad, the parameters changed reversibly at the moment when irradiation began. The following effects were observed: σ jumped up to a definite height when irradiation started and dropped down to the starting value when it was switched off. $\tan\delta$ increased in most of the objects studied. In some samples (polyethylene, polychlorvinyl, ТСШ -35

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(TSSh-35) and Tсш - Б (TSSh-B) rubber tan δ decreased during the irradiation. In polar dielectrics the maximum frequency dependence of tan δ shifted toward lower frequencies when the γ-irradiation was switched on (e.g. in PVC plastics, polyisobutylene, fluoroplastics-3, polyamide-68). In some of these ε decreased by ~20% (PVC) when the γ-irradiation was turned on. These effects are mainly due to a Compton effect of the Co^{60} γ-quanta ($h\nu \simeq 1.25$ Mev). Using these doses the original state was re-established itself in any case when the irradiation was stopped, but the reversibility cannot be attributed to radiation stability of the material. There are 11 figures and 5 tables.

ASSOCIATION: Tomskiy gosudarstvennyy universitet (Tomsk State University)

SUBMITTED: April 23, 1962

VOROZHTSOV, B.I.; NESTEROV, V.M.; OL'SHANSKAYA, N.I.

Dielectric properties of insulating materials subjected to gamma radiation. Part 2. Polyethylene. Izv. vys. ucheb. zav.; fiz. no.5:34-37 '62. (MIRA 15:12)

1. Sibirskiy fiziko-tekhnicheskiy institut pri Tomskom gosudarstvennom universitete imeni V.V. Kuybysheva.
(Dielectrics, Effect of radiation on)
(Polyethylene)

42207
S/139/62/000/005/012/015
E073/E535

15.9530

AUTHORS: Ol'shanskaya, N.I., Vorozhtsov, B.I.

TITLE: On the changes in dielectric losses in crystallizing polymers due to the effect of ionizing radiations

PERIODICAL: Izvestiya vysshikh uchebnykh zavedeniy, Fizika, no.5, 1962, 150-155

TEXT: According to published results, it can be anticipated that irradiation will cause not only a considerable change in tan δ but also in the dependence of this change on the degree of crystallization of the irradiated specimen. Since the role of the phase state of the polymer on the changes in the dielectric properties during irradiation have so far not been studied, the dielectric losses were investigated in commercial high and low pressure polyethylene, polyamide 68, Ftoroplast-3 [Abstractor's note: Kel-F] and lavsan [Abstractor's note: dacron] after X-ray, ultraviolet and γ-irradiation; tan δ and ε were measured in the frequency range 40 to 10^5 c.p.s. Results: ultraviolet irradiation increased tan δ in the entire investigated frequency range; the increase was the higher the greater the dose, the lower the frequency of the external field

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and the greater the degree of crystallization. The changes are reversible - when the irradiation was stopped the initial dielectric losses were re-established after 3 to 24 hours, depending on the type of polymer. X-ray irradiation produced an immediate increase in tan δ which depended little on the absorbed dose and, as soon as the irradiation was stopped, the initial conditions were re-established; again the specimens with the lowest degree of crystallization were the most resistant to the effects of irradiation. The effect of γ-irradiation was similar to that of X-ray irradiation for specimens with a low degree of crystallization but in specimens with a high degree of crystallization tan δ was found to depend on the absorbed dose. Irradiation caused changes in the conductance as well as in the dielectric polarization. There are 8 figures and 4 tables.

ASSOCIATION: Sibirskiy fiziko-tekhnicheskiy institut pri Tomskom gosuniversitete imeni V. V. Kuybysheva
(Siberian Physico-Technical Institute of the Tomsk State University imeni V. V. Kuybyshev)

SUBMITTED: September 30, 1960 (initially)
December 28, 1961 (after revision)

ACCESSION NR: AP3000750 S/0139/63/000/002/0075/0077

AUTHOR: Vorozhtsov, B. I.; Ol'shanskaya, N. I.; Vorozhtsova, I. G.

TITLE: Dielectric properties of insulating materials exposed to gamma radiation

SOURCE: Izv. VUZ. Fizika, no. 2, 1963, 75-77

TOPIC TAGS: polyethylene terephthalate, lavsan, hostaphan, terrylene, gamma irradiation, dielectric property

ABSTRACT: Test runs have been made of three brands of the polymer polyethylene terephthalate: the Soviet-made lavsan, the German-made hostaphan, and the British-made terrylene. Dielectric loss tangent and permittivity were measured as functions of gamma radiation of up to 2000 r/min; the external electromagnetic field frequency varied from 20 to 10^5 cps and temperature ranged from 10 to 130C. In addition, the effect of various climatic conditions on the response of conductivity to irradiation time was measured at -60, 20, 150 (maximum operating temperature), and 40C in conjunction with 98% humidity (tropical conditions). It was shown that while the loss tangent rises and resistivity sharply drops upon exposure, neither depends upon dosage, and both return to normal after exposure. Increased temperature decreases the return rate of resistivity. Of the three

L 10515-63
ACCESSION NR: AP3000930

brands, lavsan was found to be least resistant to gamma radiation with respect to the loss tangent and resistivity. This is due to its crystalline structure. Permittivity was unaffected by exposure. Orig. art. has: 4 figures and 2 tables.

ASSOCIATION: Sibirskiy fiziko-tekhnicheskiy institut pri Tomskom gosuniversitete imeni V. V. Kuyby*sheva (Siberian Physicotechnical Institute at the Tomsk State University)

SUBMITTED: 30Dec62 DATE ACQ: 11Jun63 ENCL: 00

SUB CODE: MA, PH NO REF SOV: 001 OTHER: 001

IB/
Card 2/2

ACCESSION NR: AP4020309 S/0139/64/000/001/0147/0152

AUTHORS: Nesterov, V. M.; Nesmelova, Ye. S.; Ol'shanskaya, N. I.; Mikhaylova, T. G.

TITLE: Action of gamma-radiation on dielectric properties of some cable materials

SOURCE: IVUZ. Fizika, no. 1, 1964, 147-152

TOPIC TAGS: gamma irradiation, rubber product, resin, dielectric loss tangent, dielectric constant, electrical conductivity, natural rubber, nairit

ABSTRACT: Gamma-irradiation effects on a group of rubber products and resins have been investigated. The studies included dielectric loss tangent, dielectric constant, and electrical conductivity of these materials under Co^{60} γ - irradiation. The largest dose rate was 10 r/sec and the total dosage, 10^5-10^6r. Measurements showed that gamma irradiation has practically no effect on natural rubber, nairit, and resins, TSSh-35 and ShN-40. The dielectric loss tangent in TSSh-35 was small, and electrical conductivity showed large variations only below 0C. In silicon rubber and silicon resins a reversible increase in electrical conductivity was noticed which led to an increase in the loss tangent of the silicon rubber. A reversible loss tangent was also noticed in SKS-30 rubber. Orig. art. has: 9 figures and 1 formula.

Card 1/2

ACCESSION NR: AP4020309

ASSOCIATION: Sibirskiy fiziko-tekhnicheskiy institut pri Tomskom gosuniversitete im. V. V. Kuyby*sheva (Siberian Physic ot Technical Institute at Tomsk State University)

SUBMITTED: 04May62 DATE ACQ: 31Mar64 ENCL: 00

SUB CODE: PH NO REF SOV: 004 OTHER: 000

Card 2/2

YEFIMOV, V.V., OL'SHANSKAYA, N.M.

Effect of balneological procedures and mud applications on the elasticity of relaxed and tense muscles in polyarthritis and myelitis patients. Vop.kur. fizioter. i lech. fiz. kul't. 23 no.6:532-534 N-D '58 (MIRA 11:12)

1. Iz biofizicheskoy laboratorii (zav. - prof. V.V. Yefimov) Otdela izucheniya kurortnykh resursov (zav. - zasluzhennyy deyatel' nauki prof. V.A. Aleksandrov [deceased]) TSentral'nogo instituta kurortologii (dir. kand.med.nauk G.N. Pospelova).
(MUSCLES)
(THERAPEUTICS, PHYSIOLOGICAL)

YEFIMOV, V.V.; VADKOVSKAYA, A.D.; OL'SHANSKAYA, N.M.

Infrared radiation of the skin following solar radiation, ocean bathing, and mud applications. Vop. kur., fizioter. i lech. fiz. kul't. 24 no. 4:338-342 Jl-Ag '59. (MIRA 13:8)

1. Iz biofizicheskoy laboratorii (zav. - prof. V.V. Yefimov) otdela izucheniya kurortnykh resursov (zav. - zasluzhennyy deyatel' nauki prof. V.A. Aleksandrov [Deceased]) TSentral'nogo instituta kurortologii (dir. - kand. meditsinskikh nauk G.N. Pospelova).
(INFRARED RAYS—PHYSIOLOGICAL EFFECT)

YEFIMOV, V.V.; OL'SHANSKAYA, N.M.

Biophysical properties of human skin. Changes in skin elasticity and lymph circulation following mud treatments and baths. Vop.kur., fizioter.i lech.fiz.kul't. 25 no.1:57-62 '60. (MIRA 13:5)

1. Iz biofizicheskoy laobratorii (zav. - prof. V.V. Yefimov) otdela izucheniya kurortnykh resursov (zav. - zasluzhennyy deyatel' nauki prof. V.A. Aleksandrov [deceased] TSentral'nogo instituta kurortologii (dir. - kand.med.nauk G.N. Pospelova).
(SKIN) (LYMPH) (BATHS, MOOR AND MUD)
(HYDROGEN SULFIDE--PHYSIOLOGICAL EFFECT)
(RADON--PHYSIOLOGICAL EFFECT)

KASHKIN, A.A.; LINETSKIY, S.S.; OL'SHANSKAYA, N.S.

Technological analysis of operations at the "Podzemgaz" gas producer plant in Yuzhno-Abinsk for the first quarter of 1963. Trudy VNIIPodzemgaza no.12:35-45 '64. (MIRA 18:9)

1. Yuzhno-Abinskaya stantsiya "Podzemgaz".

OL'SHANSKAYA, O.L.

Abnormalities in the sterlet of the Yenisey River. Vop. ikht. no.16:191-195 '60. (MIRA 14:4)

1. Gosudarstvennyy nauchno-issledovatel'skiy institut ozernogo i rechnogo rybnogo khozyaystva.
(Yenisey River—Sturgeons) (Abnormalities (Animals))

KRASIKOVA, V.A.; OL'SHANSKAYA, O.L.

The whitefish Coregomus nasus Pallas as an object of acclimatization. Vop. ikht. no.17:115-121 '61. (MIRA 14:5)

1. Sibirskoye otdeleniye Gosudarstvennogo nauchno-issledovatel'skogo instituta ozernogo i rechnogo rybnogo khozyaystva (GosNIORKh).
(Bol'shaya Rechka--Whitefishes) (Acclimatization)

OL'SHANSKAYA, O.L.

Two ecotypes of the whitefish Coregonus albula L. of Noril'sk lakes (Pyasina River basin) and their fishery importance. Vop. ekol. 5: 153-154 '62. (MIRA 16:6)

1. Sibirskoye otdeleniye Gosudarstvennogo nauchno-issledovatel'skogo instituta ozernogo i rechnogo rybnogo khozyaystva, Krasnoyarsk.
(Noril'sk region--Whitefishes)

OL'SHANSKAYA, T. S.

OL'SHANSKAYA, T. S. — "The Problem of Treating Carriers of Diphtheria Microbes." Moscow, 1956. (Dissertation for the Degree of Candidate in Medical Sciences.)

So.: Knizhnaya Litopis', No. 7, 1956.

OL'SHANSKAYA, T.S.; PEN, R.M.; TURBINA, N.D.

Problem of leukemia in children. Pediatriia 37 no.11:3-8 N '59.
(MIRA 13:3)

1. Iz klinicheskogo otdela (zaveduyushchiy - dotsent N.P. Savvatimskaya) Nauchno-issledovatel'skogo pediatricheskogo instituta Ministerstva zdravookhraneniya RSFSR (direktor - kand.med.nauk A.P. Chernikova, zamestitel' direktora po nauchnoy chasti - prof. N.R. Shastin).
(LEUKEMIA in inf. & child.)

OLSHANSKAYA V. A., Bondarenko, R. V. and Volongevich, Ye. F.

"Orientation of Pictures on STD-1 by Using Four Altitude Points From Camera Determination of the main Point of the Right Picture of the Stereocouple"
Sb. ref. Tsentr. n-i. in-ta geod., adros'yemki i kartogr. No 1, 1954, 50-51

The method consists in the approximate orientation of the stereocouple tolerating 0.05 to 0.10 mm errors. The measured discrepancies of longitudinal parallaxes are used to fix the main point on the right picture as mean arithmetic of the two determinations. Thereafter the discrepancies of longtitudinal parallaxes of basic points are established in relation to the main point of the right and the stereocouple definitively oriented. (RZhAstr, No 10, 1955)

SO: Sum-No. 787, 12 Jan 56

SHARETS, D.S.; KHOLOPOV, V.D.; POBEDINA, M.P.; TSVETKOV, P.V.; OL'SHANSKAYA, Yu.S.

Brief news: In memory of Arkadii Gustavovich Berens. Geog.v shkole 22 no.4:86 Jl-Ag '59. (MIRA 12:11)
(Berens, Arkadii Gustavovich, 1896-1959)

ol' SHAWSKAYA, Z.I.

ANGENITSKAYA, Roza Borisovna, kand.tekhn.nauk; OL'SHAVSKAYA, Zinaida Ivanovna, inzh.; MORACHEVSKIY, I.I., kand.tekhn.nauk, red.; TSIPLYAKOVA, A., red.; SHARAY, Ya., tekhn.red.

[Manual on testing clay for the manufacturing of ceramic building materials] Rukovodstvo po ispytaniiam glin dlia proizvodstva keramicheskikh stroitel'nykh materialov. Pod red. I.I.Morachevskogo. Kiev, Gos.izd-vo lit-ry po stroit. i arkhit. USSR, 1957. 210 p. (MIRA 11:3)
(Clay--Testing)

L 14444-66
ACC NR: AP6002971 SOURCE CODE: UR/0286/65/000/024/0145/0145

INVENTOR: Lobov, A. G.; Ol'shanskiy, A. V.; Shulepov, L. V.

ORG: none

TITLE: A tractor with a bulldozer attachment. Class 63, No. 177286 [announced by the Red Banner Military Engineering Academy im. V. V. Kuybyshev (Voyenno-inzhenernaya krasnoznamennaya akademiya)]

SOURCE: Byulleten' izobreteniy i tovarnykh znakov, no. 24, 1965, 145

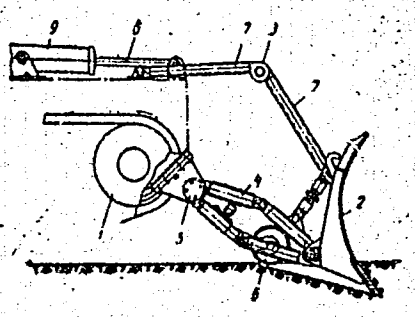
TOPIC TAGS: tractor, construction machinery

ABSTRACT: This Author's Certificate introduces: 1. A tractor with a bulldozer attachment including a scraper blade, a blade-raising mechanism, upper push rods, lower push rods which are four-link hinged mechanisms with flexible connections and a support roller mounted on one of the bottom links. The device is designed for uniform load distribution on the caterpillar tread of the tractor and for reduced frame vibration during motion. The rear end of the tractor body is made in the form of the bulldozer scraper attachment mounted so that it can be moved into the working

Card 1/3 UDC: 621.868.238.6 : 621.878.23

L 14444-66

ACC NR: AP6002971



1 - tractor; 2 - scraper; 3 - hoist mechanism; 4 - four-link hinged mechanism; 5 - adjustable torsion device; 6 - support roller; 7 - upper push rods; 8 - cylinder rod; 9 - power cylinder.

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L 14444-66

ACC NR: AP6002971

position by the hoist mechanism with interhinged upper push rods. One of these rods is also hinged to the scraper device and the others are hinged to the tractor. The rods of power cylinders mounted on the tractor are fastened by hinges to these push rods. 2. A modification of this tractor in which each of the hinged four-link mechanisms of the bulldozer attachment is made with a flexible connection in the form of an adjustable torsion device mounted in the hinge which fastens the four-link mechanism to the tractor.

SUB CODE: 13/ SUBM DATE: 26Nov64

Card 3/3

S/142/62/005/005/004/009
E140/E135

9,1310

AUTHOR: Ol'shanskiy, A.P.

TITLE: Excitation of diaphragmed rectangular waveguide

PERIODICAL: Izvestiya vysshikh uchebnykh zavedeniy, Radiotekhnika, v.5, no.5, 1962, 577-584

TEXT: The problem treated is the calculation of field amplitudes excited by given sources in a straight rectangular waveguide loaded along the side walls by metallic diaphragms. The complete solution involves an infinite sum of wave modes corresponding to an infinite sequence of space harmonics. An approximate solution is found for the fundamental mode, which is applicable in certain cases, e.g. in the excitation of synphase longitudinal electric waves in the diaphragmed waveguide used for a cyclic accelerator. After discussing a generalised notation for this case, the author establishes the differential equations for the scalar complex amplitudes and the excitation of such a waveguide resonator from a narrow slot in one of the loaded walls. There are 3 figures.

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43400

S/141/62/005/005/006/016
E140/E135

9.1310

AUTHOR: Ol'shanskiy, A.P.

TITLE: The method of coupled waves in the calculation of diaphragmed waveguides

PERIODICAL: Izvestiya vysshikh uchebnykh zavedeniy, Radiofizika, v.5, no.5, 1962, 978-983

TEXT: In this paper the method of coupled waves is applied to large-signal problems. In a rectangular diaphragmed waveguide the field is expanded in a complete system of characteristic functions of E for a regular rectangular waveguide with internal dimensions equal to the window in the diaphragm, and summed over all E and H waves. An infinite system of differential equations is obtained for the amplitude components. Physical considerations allow a solution to be found for certain waves in a system of algebraic equations. The dispersion equations obtained indicate that in a "double comb" waveguide synphase and antiphase longitudinal electric waves and antiphase longitudinal magnetic waves can exist. The dispersion of the synphase longitudinal electric waves was calculated for a certain waveguide

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The method of coupled waves in ... S/141/62/005/005/006/016
E140/E135

and compared with experimental results. The results confirm the conclusions of L.C. Bahiana and L.D. Smullin (IRE Trans. Microwave Theory and Techn., v.8, 1960, 454). There are 2 figures.

ASSOCIATION: Nauchno-issledovatel'skiy institut yadernoy fiziki, elektroniki i avtomatiki pri Tomskom politekhnicheskom institute
(Scientific Research Institute of Nuclear Physics, Electronics and Automation at Tomsk Polytechnical Institute)

SUBMITTED: February 27, 1962

Card 2/2

ACCESSION NR: AP4039734 S/0141/64/007/002/0338/0342

AUTHOR: Vorob'yev, A. A.; Bezmaterny*kh, L. N.; Didenko, A. N.; Lisitsy*n, A. I.; Ol'shanskiy, A. P.

TITLE: Laminated dielectric coatings with large reflection coefficients

SOURCE: IVUZ. Radiofizika, v. 7, no. 2, 1964, 338-342

TOPIC TAGS: dielectric coating, reflection coefficient, cavity resonator, microwave equipment, dielectric permittivity

ABSTRACT: In view of various applications of laminated dielectric coating with large reflection coefficients, their reflecting properties are analyzed on the basis of a calculation of the reflection coefficient from a semi-infinite periodic medium, comprising an infinite waveguide of arbitrary cross section, one half of which is filled with dielectric layers. Such a representation neglects the reflection from the second boundary of the layer and is justified at the frequencies considered. The field outside the outermost layer is then described as a sum of incident and reflected waves, and inside the layer by a wave traveling inside the dielectrics. Calculations show that for a given reflection coefficient the dimensions of the laminated coating decrease sharply with increasing dielectric con-

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ACCESSION NR: AP4039734

stant of the layers, and in the case of large dielectric constants (e. g., barium titanate), such layers can be used not only in the optical but also in the microwave bands. It is shown that a frequency exists at which the tangential electric field on the surface of the laminated medium vanishes, making it possible in some cases to replace metallic walls of cavity resonators by laminated dielectrics without distorting the field structure in the cavity. Tests of laminated dielectric consisting of alternating layers of paraffin and foamed plastic placed in a rectangular waveguide confirmed this assumption, and the cavity produced by shorting the ends of this waveguide had approximately the same Q as a metal cavity. Slight deviations from theory are explained. The use of dielectrics with large permittivities (10^2 -- 10^3) will make it possible to reduce the total thickness of the sandwich to 1 -- 2 cm in the 10-cm band and to several tenths of a millimeter in the millimeter band. Orig. art. has: 2 figures and 11 formulas.

ASSOCIATION: None

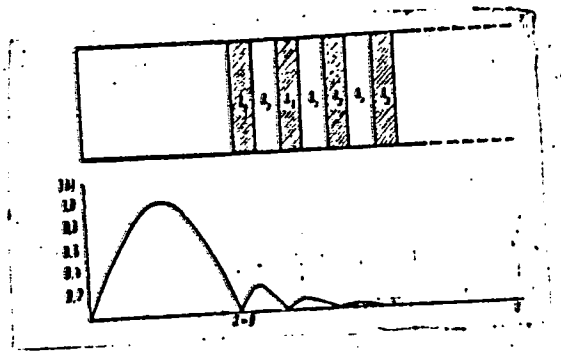
SUBMITTED: 20May63 ENCL: 02

SUB CODE: EM, MT NR REF SOV: 003 OTHER: 04

Card 2/4

ENCLOSURE: 01

ACCESSION NR: AP4039734

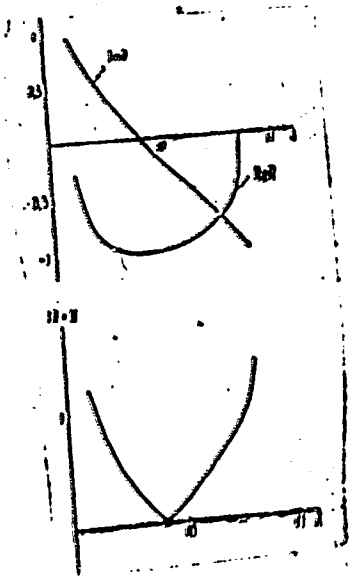


Distribution of electric field in a stratified medium, for R = 1, λ = 10 cm, ε_2 = 10, ε_1 = 1, L_2 = 1.2 cm (H_{01} mode). (R - reflection coeffic., λ - wavelength, ε - dielectric const., L - thickness)

Card 3/4

ACCESSION NR: AP4039734

ENCLOSURE: 02



Dependence of the reflection coefficient on the wavelength within the rejection band, at $\varepsilon_2 = 2$, $\varepsilon_1 = 1$, $L_2 = 2.8$ cm, $L_1 = 2$ cm, a = 7.2 cm (H_{01} mode). (a - width of waveguide)

Card 4/4

KOVRIGIN, L.A.; OL'SHANSKIY, A.P.; PADUSOVA, Ye.V.

Device for measuring the relative intensity of an electric field in resonant cavities. Izv. TPI 100:170-173 '62.
(MIRA 18:9)

OLSHANSKIY, D., inzh.-tekhnolog

Excursion to a book factory (conclusion). Izd.tekh. 4 no.1: 54-58 Ja '60. (MIRA 13:5)
(Book industries)

OL'SHANSKIY, E., inzh.

Repair of barge bottom decks by filling with water. Rech. transp. 19 no.10:56-57 O '60. (MIRA 13:11)
(Barges--Maintenance and repair)

OL'SHANSKIY, G.M., starshiy tekhnik;SOROKIN, E.B.

Simplification in the technique of designing signaling devices. Avtom. telem. i sviaz' 3 no.11:39-40 N '59 (MIRA 13:3)

1. Starshiy inzhener Moskovskogo gorodskogo proyektno-izyskatel'nogo institutapo transportu Mosgiprotrans (for Sorokin). 2. Moskovskiy gorodskoy proyektno-izyskatel'nyy institut po transportu - Mosgiprotrans (for Ol'shanskii).

(Railroads--Signaling)

CHUYANOV, A., inzhener; OL'SHANSKIY, I., inzhener; LAVRUSHIN, A., inzhener.

The leader in the meat packing industry; twentieth anniversary of the Moscow Meat Combine. Mias.ind. SSSR 24 no.6:5-8 '53. (MIRA 6:12)
(Moscow--Meat industry) (Meat industry--Moscow)

OL'SHANSKIY, I.

LAVRUSHIN, A., inzhener; OL'SHANSKIY, I., inzhener.

Re-equipping shops of the Moscow meat combine. Mias.ind. SSSR. 25 no.5:12-17 '54. (MLRA 7:11)
(Packing houses)

LAVRUSHIN,A., inzhener; OL'SHANSKIY,I., inzhener

New efficiency methods in the Moscow meat combine. Mias. ind. SSSR 26 no.3:53-55 '55. (MIRA 8:9)
(Moscow--Meat industry)

LAVRUSHIN, A.Ya.; OL'SHANSKIY, I.I.; ABRAMOV, N.D.; STAL'MAKOVA, M.I.; FILATKIN, I.G.; BELOGOLOVAYA, N.G.; STEPANOV, A.S., spetsred.; VASIL'YEVA, G.N., red.; CHEBYSHEVA, Ye.A., tekhn. red.

[Meat industry; collection of articles] Miasnaia promyshlennost'; sbornik. Moskva, Pishchepromizdat. (Obmen peredovym tekhnicheskim opytom). No.14. [Practices of efficiency promoters of the Moscow Meat Combine] Opyt ratsionalizatorov Moskovskogo miasokombinata. 1956. 25 p. (MIRA 11:10)

1. Russia (1923- U.S.S.R.) Ministerstvo promyshlennosti myasnykh i molochnykh produktov. Otdel tekhnicheskoy informatsii. (Moscow--Meat industry)

LAVRUSHIN, A., inzhener; OL'SHANSKIY, I., inzhener.

Suggestions of meat combine efficiency promotors. Mias. ind. SSSR 27 no.4:48-50 '56. (MLRA 9:10)

1. Moskovskiy myasokombinat.
(Meat industry--Equipment and supplies)

OL'SHANSKIY, I.

LAVRUSHIN, A., inzhener.; OL'SHANSKIY, I., inzhener.

Suggestions of efficiency promoters. Mias. ind. SSSR no.2:52-53 '57.
(MIRA 10:5)

1. Moskovskiy myasokombinat.
(Meat industry--Equipment and supplies)

LAVRUSHIN, A., inzhener; OL'SHANSKIY, I., inzhener.

Suggestions of efficiency promoters of the Moscow Meat Combine.
Miasn. ind. SSSR 28 no.3:52-53 '57. (MIRA 10:6)
(Meat industry--Equipment and supplies)

OL'SHANSKIY, I.

LAVRUSHIN, A., inzhener; OL'SHANSKIY, I., inzhener.

Processing bristly by-products in the Moscow Meat Combine.
Miasn.ind.SSSR 28 no.4:19-20 '57. (MLRA 10:7)
(Meat industry--By-products)

SOV/118-59-4-6/25

28(1)

AUTHORS: Ol'shanskiy, I.I., and Lavrushin, A.Ya., Engineers

TITLE: Internal Plant Transportation Within the Moscow Meat Combine

PERIODICAL: Mekhanizatsiya i avtomatizatsiya proizvodstva, 1959, Nr 4, pp 22-24 (USSR)

ABSTRACT: In the Moskovskiy myasokombinat (Moscow Meat Combine), various products, materials and packages are transported over considerable distances. Horizontal transportation is carried out using suspension ways, trolley conveyers, etc., or ground-type carriages and electric cars. The suspension ways consist of framework, rails, suspension brackets, derricks and carriages, located at a height of 2.1 to 4.6 m, on which are used pushing, carrying and mixed suspension type conveyers. Additional devices may be fastened on the carriage clamps to facilitate transportation of various products. The Moscow Meat Combine has established 35 km of transportation ways and 5 km of con-

Card 1/2

CHERCHENKO, G.V.; OL'SHANSKIY, K.M.

Effect of pressure and temperature on the solubility of gas mixtures in oils of the middle Volga Valley, based on the results of multiple degasification of subsurface samples. Trudy Giprovostoknefti no.3:327-332 '61. (MIRA 16:7)

(Volga Valley--Petroleum--Analysis)
(Volga Valley--Gas, Natural)

CHERCHENKO, G.V.; OL'SHANSKIY, K.M.

Component composition of gases dissolved in formation oils of the middle Volga Valley according to data of multiple degasification of subsurface samples. Trudy Giprovostoknefti no.3:391-406 '61. (MIRA 14:12)

(Volga Valley--Oil reservoir engineering)

CHERCHENKO, G.V.; OL'SHANSKIY, K.M.

Results of studying the solubility of natural gas components in petroleums under the conditions of increased pressures and different temperatures. Trudy Giprovostoknefti no.4:41-60 '61. (MIRA 16:8)

(Gas, Natural) (Solubility)

AUTHORS: Fayerman, D. V., Glushanskiy, L. P. SOV/32-24-8-11/43

TITLE: A Galvanometric Method for Controlling the Process of Paraffin Oxidation (Gal'vanometricheskiy metod kontrolya protsessov okisleniya parafina)

PERIODICAL: Zavodskaya Laboratoriya, 1958, Vol. 24, Nr 8, pp. 947-949 (USSR)

ABSTRACT: The present methods for determining the oxidation of paraffins which measure the increase in acidity, are inexact because of the tendency of the oxidation rate to vary considerably during the period of investigation. The viscometric method of D.S. Velikovskiy and O.S. Kuz'menkova (Ref 1) is likewise time-consuming. A control method is given in this paper which is based upon the direct relationship between the conductivity and the extent of oxidation of the paraffins. A diagram of the apparatus used to measure the conductivity is given. The electrodes are of rust-proof steel (27, 53 mm); they are set 4,5 mm apart, and a direct current potential of 500 volts is put across them. Since the conductivity of the oxidation product varies with temperature the laboratory measurements were taken at definite temperatures, depending on the

Card 1/2

A Galvanometric Method for Controlling the Process of Paraffin Oxidation

SOV/32-24-8-11/43

working conditions. Temperature corrections were based on tables used in the laboratory, since this was found to be a valid method. For the use of this method of continuous control in chemical plants a schematic representation of the arrangement is given. The dimensions of the electrodes and the distance between them must be increased proportionally for industrial use.
There are 4 figures.

ASSOCIATION: Osipenkovskiy opytnyy neftemaslozavod i zavod "Azovkabel'" (Osipenkovskiy Experimental Oil Refinery and the "Azovkabel'" Factory)

CARD 2/2