

137-58-4-7862

Translation from: Referativnyy zhurnal, Metallurgiya, 1958, Nr 4, p 214 (USSR)

AUTHORS: Bibikov, N. N. , Kurakina, N. P. , Ivanova, Ye. V.

TITLE: Intermittent-current Nickel Plating (Nikelirovaniye s primeneni-
yem pereryvov toka)

PERIODICAL: Tekhnol. transp. mashinostroyeniya, 1957, Nr 7, pp 21-23

ABSTRACT: It is noted that the reversal of current that has come into use recently in electroplating is not of adequate efficiency for all processes or fully applicable to them. It was established that in nickel-plating (N) with current reversal, positive results are obtainable only with a positive impulse representing a small quantity of electricity ($\leq 0.5-0.6 \text{ a-c/dm}^2$) and when the ratio of the cathodic and anodic periods is ($t_k/t_a \geq 10/1:15/1$). Moreover, N with current reversal has the serious shortcoming that the electrolyte may gain in ions of the base metal (Fe). A more efficient method of N was investigated, based on an intermittent current, with an electrolyte of the following composition (in g/liter): $\text{NiSO}_4 \cdot 7\text{H}_2\text{O}$ 250, $\text{Na}_2\text{SO}_4 \cdot 10\text{H}_2\text{O}$ 60, H_3BO_3 50 NaCl 5; pH 4.3-4.4; $D_k = 2-2.6 \text{ a/dm}^2$; duration of electrolysis 4-5 sec, length of interruption in current 1 sec, temperature of electrolysis 18-20°C, current efficiency

Card 1/2

137-58-4-7862

Intermittent-current Nickel Plating

about 97 percent. Intermittent-current N results in a coating of lower porosity (0.49 pore per cm² surface area) relative to that with coatings produced in the same electrolyte with constant current (0.75 pore per cm² surface area). Compressive stress in the coating is diminished, and fatigue and corrosion fatigue resistance of the nickel-plated parts is increased under conditions of loads of alternating sign. Intermittent-current N makes it impossible for Fe ions to accumulate.

A. L.

1. Nickel plating--Electrical factors

Card 2/2

TIMOFEYEV, N.S., dotsent (Leningrad, P-10, ul. Savushkina, d.12, kv.70)
IVANOVA, Ye.V.; PLETNEVA, V.A.

Acute intestinal obstruction following appendectomy and its
treatment. Vest. Khir. 91 no.10:57-61 0 '63.

(MIRA 17:7)

1. Iz Leningradskogo okruzhnogo voyennogo gospitalya i 2-y
fakul'tetskoy khirurgicheskoy kliniki (nachal'nik - prof.
A.V. Mel'nikov [deceased]) Voyenno-meditsinskoy ordena Lenina
akademii imeni Kirova.

IVANOVA, Ye.V.; CHEKALINSKAYA, I.I.

Cultivation of *Rhaponticum carthamoides* in White Russia.
Bot.; issl. Bel. otd. VBO no.6228-32 '64.

(MIRA 1847)

IVANOVA, Ye.Ya.

The oldest hospital worker. Med.sestra no.12:28-29 D '53.
(MIRA 6:12)

1. Starshaya meditsinskaya sestra gorodskoy bol'nitsy no.1,
Nikolayev.

(Krivosheina, Elizaveta Semenovna, 1888-)

IVANOVA, Ye.Ya.

Changes in the hemopoiesis of the bone marrow in rabbit donors.
Bull. ekap. biol. i med. 60 no.8:43-46 Ag '65. (MIRA 18:9)

1. Kafedra gospiatal'noy pediatrii (zav.-- deystvitel'nyy chlen
AMN SSSR prof. A.F. Tur) Leningradskogo pediatricheskogo
meditsinskogo instituta.

EVANOVA, Ye.Ye.; KALINICHEVA, V.I.

Distribution of bone marrow cells in the body of the recipient.
Probl. gemat. i peral. krovi 8 no.11:50-52 N '63. (MIRA 17:12)

1. Iz kafedry gospi'tal'noy pediatrii (zav. deystvitel'nyy chlen
AMN SSSR prof. A.F. Tur) Leningradakogo pediatricheskogo
meditsinskogo inistituta.

IVANOVA, Ye.Ya.; PARSHINA, E.A.

Use of donor's bone marrow for the treatment of pregnant
animals irradiated with γ -rays. *Tr. Akad. Nauk SSSR Ser. Biol. Med. Sci.* no.3:
448-461 '64. (MLA 18:7)

IVANOVA, Ye. Ye.

Effect of boron, applied before seeding, on the seed production
and hay yield of red clover. Vest.Len.un.11 no.9:107-112 '56.

(MLRA 9:8)

(Boron) (Clover)

IVANOVA, Ye.Z.

Plaster casts. Fel'dsher & akush. no.4:47-49 Apr 1953. (GIML 24:4)

1. Fel'dsher. 2. Tambov.

43751

S/081/62/000/023/026/120
B158/B180

AUTHOR: Ivanova, Yonka

TITLE: Rapid complexometric analysis of chromites and chrome-magnesite refractories

PERIODICAL: Referativnyy zhurnal. Khimiya, no. 23, 1962, 198, abstract 23D151 (Godishnik N.-i. in-t metalurgiya i obogat., v. 2, 1961, 167-170 [Bulg.; summaries in Russ. and Ger.])

TEXT: A method of analyzing chromites and chrome-magnesite refractories is suggested in which the sample is dissolved, the Cr distilled off as CrO_2Cl_2 , the SiO_2 isolated and the Al, Fe, Ca and Mg titrated with a 0.05 M solution of complexon III (I). 0.5 g of the sample is sintered at $850-950^\circ\text{C}$ with Na_2CO_3 , the sinter dissolved in a mixture of conc. HCl with HClO_4 and heated in a sand bath to remove the CrO_2Cl_2 . The residue is treated with some drops of conc. HCl and 50 ml hot water, filtered off from the SiO_2 , the latter heated at $950-1000^\circ\text{C}$ and weighed before and
Card 1/2

Rapid complexometric analysis of ...

S/081/62/000/023/026/120
B158/B180

after treatment with HF. The filtrate is made up with water to 250 ml (solution A). To determine Al, 15 ml solution I, NH_4OH up to pH 5, and 5 ml of an acetate buffer solution, pH 5, are added to 50 ml solution A, it is boiled for some minutes and, after cooling, excess I is titrated with 0.05 M $\text{Pb}(\text{CHCOO})_2$ solution (II) in the presence of xylenol orange; then 20 ml saturated NaF solution are added, the mixture is boiled for some minutes to decompose the Al complexonate, and the liberated I is titrated with solution II. For Fe, NH_4OH up to pH 2-3 is added to 50 ml of solution A and it is titrated with solution I in the presence of sulfosalicylic acid. For Ca, 20 ml 10% KNa tartrate and 20 ml 20% KOH solution up to pH 12 are added to 50 ml solution A and it is titrated with solution I in the presence of fluorexon. Mg is determined by adding 20 ml KNa tartrate solution and NH_4OH until the solution is decolorized to 50 ml of solution A, adding 5 ml of a buffer solution (of pH 9) (according to Schwarzenbach) and titrating with solution I in the presence of thymolphthalexon. [Abstracter's note: Complete translation.]

Card 2/2

S/081/62/000/023/062/120
B180/B144

AUTHORS: Ivanova, Yord., Simova, L.

TITLE: Silicate analysis of highly refractory clays

PERIODICAL: Referativnyy zhurnal. Khimiya, no. 23, 1962, 484, abstract
23K320 (Godishnik N.-1. in-t metalurgiya i obogat., v. 2,
1961, 181-184 [Bulg.; summaries in Russ. and Ger.])

TEXT: A method is proposed for a rapid analysis of highly refractory clays. The sample is dissolved in sodium carbonate and silicic acid is precipitated by the gelatine method. Then Al, Ca and Mg are titrated in aliquot fractions, precipitation of the mixing elements being avoided by masking with Rochelle salt. The pH values and indicators for the titration are given. The method can be used to analyze kaolins, pegmatites, feldspars and so on. [Abstracter's note: Complete translation.]

Card 1/1

S/064/62/000/006/003/003
B144/B138

AUTHORS: Stepin, B. D., Plyushchev, V. Ye., Ivanova, Yu. A.

TITLE: Extractive separation of rubidium and potassium

PERIODICAL: Khimicheskaya promyshlennost', no. 6, 1962, 18 - 22

TEXT: The distribution of organic K and Rb compounds is studied between the aqueous phase and alcohols, ketones and esters of C_2-C_5 monocarboxylic acids.. Rb and K carbonates obtained from RbCl and K_2CO_3 respectively, were dissolved in H_2O and heated to 50 - 60°C while stirring; organic acid was added up to a pH of 6 - 6.5, then excess acid (2 - 4 ml) was added, the solution boiled down, and the residue mixed with acetone. Extraction was performed in separating funnels. The solvent is saturated with H_2O before being used for the extraction so that equilibrium is established exclusively by the organic solvent and the test substance. The salts are converted to sulfates to determine their content in both phases. The calculated separation coefficient, β , agrees with the usual values, but may be changed significantly in the presence of two 1-anion
Card 1/2

✓ The chemical composition of some spring annuals of Turkmenistan. Yu. I. Ivanova. *Izvest. Akad. Nauk Turkmen S.S.R.* 1954, No. 1, 85-7; *Referat. Zhur. Khim. Biol.-Khim.* 1953, No. 176.—Crucifers contain in % on the basis of dry wt.: protein, 12.38-14.14; ash, 13.94-21.92; *Borago officinalis* has an ash content of 16.13-45.23%. As maturity progresses ash is gradually reduced to 8.82-12.74%; it rises to 16.31-23.06 during the period of actual fruit formation; the cellulose content is comparatively low but increases towards the fruit-bearing period. Composites are characterized by a comparatively high fat content (3.14-5.74%) and protein (no data given), especially during the period of fruit bearing. Compared with annuals of other families composites contain more N-free ext. substances, but the ash content is lower. H. S. Levine

PIVEN', P.K., red.; BARYSHNIKOVA, N.I., red.; PROTOPOPOVA, V.M., red.;
IVANOVA, Yu.I., red.; CHEREPANOVA, N.A., red.; KOSTKO, R.P., red.;
PETROVA, O.Ye., red.; SYCHEVA, G.F., red.; CHURIKOVA, A.K., red.;
POZDEYEV, A.P., tekhn.red.

[Economy of Tyumen Province] Narodnoe khoziaistvo Tiimenskoi
oblasti. Omsk, Gos.stat.izd-vo, 1958. 198 p. (MIRA 12:3)

1. Tyumen oblast'. Statisticheskoye upravleniye. 2. Nachal'nik
statisticheskogo upravleniya Tyumenskoy oblasti (for Piven').
(Tyumen Province--Economic conditions)

18.7200

69882

8/121/59/000/10/002/005

AUTHORS: Aleksandrovich, B.L., Ivanova, Yu.I.TITLE: The Effect^d of Ledeburite Eutectic^d in the Welding Seam Zone on the Mechanical Properties of R18 and 45 Grade Steel Blanks

PERIODICAL: Stanki 1 Instrument, 1959, No 10, pp 36 - 37

TEXT: The authors point out that during the butt-welding of blanks of high-speed steel their heating temperature may reach the melting point, which causes the formation of ledeburite eutectic. In order to investigate the effects of ledeburite eutectic on the mechanical properties of the welding blanks, tests were carried out with specimens of the steel grades R18 and 45, of which the high-speed steel in its initial state had a structure of sorbitic pearlite and carbide and a hardness of $H_B = 241 \div 255$, while the 45 grade steel had a pearlite and ferrite structure. Butt-welding of the specimens was carried out on the MF-91 electric welding apparatus, with a transformer capacity of 50 kW and a standard line voltage of 380 v. After the welding the blanks were placed in a storage container with a temperature of 400°C. Then annealing took place under the following conditions: heating from 400 to

Card 1/2

RABINOVICH, Z.L. (Kiyev); IVAS'KIV, Yu.L. (Kiyev)

Certain class of canonical forms of the presentation of three-
valued functions. Izv. AN SSSR. Tekh. kib. no.5:27-34 S-C '63.
(MIRA 16:12)

KOVALENKO, K.N.; IVANOVA, Yu.P.; VOROB'YEVA, S.P.

Zinc corrosion in solutions of sulfuric acid and a zinc electrolyte
in the presence of antimony and cobalt impurities. Uch.zap. RSU
41:27-38 '58.

(Zinc--Corrosion) (Electrolysis) (Antimony) (MIRA 15:1)

IVANOVA, Yu. V.

"Osnovnye problemy izucheniya sel'skoy obshchiny na Balkanakh v rabotakh
sovetskikh uchenykh."

report submitted for 7th Intl Cong, Anthropological & Ethnological Sciences,
Moscow, 3-10 Aug 64.

VARSHAVSKAYA, D.Ya.; IVANOV-DYATLOV, F.G.

Disorders of cardiovascular activity in pathology of the cerebro-
spinal system in children. Probl. sovr. neurokhir. 2:47-53'57
(MIRA 16:6)

(CARDIOVASCULAR SYSTEM—DISEASES) (CEREBROSPINAL FLUID)
(CHILDREN—DISEASES)

"APPROVED FOR RELEASE: 08/10/2001

CIA-RDP86-00513R000619230009-1

APPROVED FOR RELEASE: 08/10/2001

CIA-RDP86-00513R000619230009-1"

L 211 4268

ACCESSION NR AP4041152

IVANOV-FRANTSKEVICH, G.N.

Some problems in averaging the equation of balance. Trudy Inst.okean.
60:96-113 '62. (MIRA 17:1)

"APPROVED FOR RELEASE: 08/10/2001

CIA-RDP86-00513R000619230009-1

APPROVED FOR RELEASE: 08/10/2001

CIA-RDP86-00513R000619230009-1"

"APPROVED FOR RELEASE: 08/10/2001

CIA-RDP86-00513R000619230009-1

APPROVED FOR RELEASE: 08/10/2001

CIA-RDP86-00513R000619230009-1"

"APPROVED FOR RELEASE: 08/10/2001

CIA-RDP86-00513R000619230009-1

APPROVED FOR RELEASE: 08/10/2001

CIA-RDP86-00513R000619230009-1"

TITLE: One approach to the simulation of psychic functions

SOURCE: ANTI-KSSR (anti-espionage) - Kibernetika i tekhnicheskaya kibernetika (Cybernetics)

ADMINISTRATIVE ATTACHMENT

stores typical situations and contains associative and address subsystems. The block of emotions works out the resultant emotional state of the system. The block of interactions provides an emotional interpretation of the input word. The reply block forms the reply of the system by first searching the reply dictionary and then constructing the reply itself. The analysis block verifies the emotional coloring of the reply.

"APPROVED FOR RELEASE: 08/10/2001

CIA-RDP86-00513R000619230009-1

APPROVED FOR RELEASE: 08/10/2001

CIA-RDP86-00513R000619230009-1"

НАУЧНО-ТЕХНИЧЕСКИЙ В.И.: КОЛОДЦОВС, Б.Т.; МАЛКОВА, А.А.

Optical and photoelectric properties of HgTe and its alloys with
CdTe. Fiz. tver. tela 6 no.5:1457-1461 My '64.

(MIRA 17:9)

I. Fiziko-tekhnicheskiy institut imeni A.F. Foffe AN SSSR, Leningrad.

IVANOV-SMOLETSKIY, A.V., dotsent; TAMOYAN, G.S., inzh.

Similitude criteria of magnetohydrodynamic effects and electromagnetic power losses in a layer of conductive medium between the rotor and stator of an asynchronous motor. Izv. vys. ucheb. zav.; energ. 7 no.6:32-39 Je '64 (MIRA 17:8)

1. Moskovskiy ordena Lenina energeticheskiy institut. Predstavlena kafedroy elektricheskikh sistem i setey.

SEMKHATOVA, S.; IVANOVA, Z.; MAKAROVA, T.; FILIPPOVA, M.

Information. Geol. nefiti i gaza 4 no.11:3 of cover # 160.
(MIRA 13:11)

(Geology, Stratigraphic)

BOKSHA, Vyacheslav Georgiyevich; BERSHITSKIY, Yakov Markovich;
IVANOVA, Z., red.

[Sea, sun and air are waiting for you... (health resort
visitor's booklet on climatic therapy during a warm period
of the year)] Vas zhdut more, solntse, vozdukh... (Pamiatka
kurortnika o klimaticheskom lechenii v teplyi period goda).
Simferopol', Krymizdat, 1963. 29 p. (MIRA 17:5)

"APPROVED FOR RELEASE: 08/10/2001

CIA-RDP86-00513R000619230009-1

APPROVED FOR RELEASE: 08/10/2001

CIA-RDP86-00513R000619230009-1"

IVANOVA, ZH.

Extraordinary session for operators and constructors of class B. p.4.
(RADIO I TELEVIZIJA, Vol. 6, no. 4, 1957, Sofia, Bulgaria.)

SO: Monthly List of East European Accessions (EEAL) IC, Vol. 6, no. 12, December 1957 Uncl.

SMYSHLYAYEV, V.K. (Yoshkar-Ola); BAYTAL'SKIY, M.M. (Odessa); IVANOVA, Zh. (Vratsa, Bolgariya); USHAKOV, V.V. (Staryy Oskol); PRZESMAN, A.A. (Sverdlovsk); LEVIN, M.N. (Tartu); BRIGADIN, I.Ya. (Moskva); LEVIN, M.I. (Tartu); KASHIN, B.I. (Kalininskaya obl.)

Problems for students. Mat. v shkole no.6:90-91 N-D '59 (MIRA 13:3)
(Mathematics--Problems, exercises, etc.)

IVANOVA, Z. A.

USSR/Geology

Card 1/1 : Pub. 22 - 23/41

Authors : Ivanova, Z. A.

Title : Source of disthene in the Chokrask-Karagansk deposits of north-eastern Caucasus

Periodical : Dok. AN SSSR 98/2, 253-255, Sep 11, 1954

Abstract : Geological data on the source of disthene (cyanite mineral) in the Chokrask-Karagansk deposits of north-eastern Caucasus are presented. Charts showing locations of disthene resources are included. Nine USSR references (1937-1952).

Institution : All-Union Petroleum Scientific Research Institute, Leningrad

Presented by : Academician S. I. Mironov, June 12, 1954

AUTHORS: Vyatkina, V. M., Ivanova, Z. A., SOV/108-13-10-7/13
Molchanov, A. P.

TITLE: Phase Discriminator (Fazovyy diskriminator)

PERIODICAL: Radiotekhnika, 1958, Vol 13, Nr 10, pp 39 - 44 (USSR)

ABSTRACT: One of the principal requirements placed upon phase-discriminators is stability of balancing. A circuit is investigated which according to assertions by the author, exhibits a high stability. Formulae for the computation of a high balancing stability phase-discriminator are deduced. The discriminator characteristic and the stability of this circuit are compared with a bridge circuit with the same parameters. For this purpose the bridge circuit is investigated in a similar manner with a trapezoidal test signal. The phase discriminator is investigated experimentally, the results of this work being presented in this paper. There are 11 figures and 5 references, 2 of which are Soviet.

SUBMITTED: March 26, 1957
Card 1/1

5.3500

77673
SOV/80-33-2-48/52

AUTHORS: Gaponenkov, T. K., Stanislavskaya, T. K., Ivanova, Z. A.

TITLE: Brief Communications. Concerning the Preparation of Araban From the Press of Sugar Beets, Using Ion Exchange Resin

PERIODICAL: Zhurnal prikladnoy khimii, 1960, Vol 33, Nr 2, pp 494-496 (USSR)

ABSTRACT: The isolation and purification of araban from sugar beets was studied. Araban was isolated from pectin and also from sugar beets using ion exchange resins: anion exchange resin EDE-10, which was converted into OH-form with 0.25 N NaOH, and cation exchange resin KU-1, which was converted into H-form with 1 N HCl. Araban yield from pectine, 23-25% and from sugar beets, 5-6%. The obtained product (powder) dissolves readily in water, refraction index 1.5465 (aqueous solution, concentration is not given), density 1.5550, mol wt - 5,200-5,500. Araban was

Card 1/2

Brief Communications. Concerning the Preparation of Araban From the Press of Sugar Beets, Using Ion Exchange Resin

77673

SOV/80-33-2-48/52

hydrolyzed with 4% H_2SO_4 and l-arabinose was obtained in 80-85% yield. The obtained araban contains about 40 arabinose units. There are 5 references, 4 Soviet, 1 German.

ASSOCIATION: Voronezh Agricultural Institute, Laboratory of Organic Chemistry (Laboratoriya organicheskoy khimii Voronezhskogo sel'skokhozyaystvennoogo instituta)

SUBMITTED: September 14, 1959

Card 2/2

BRIKUN, N.I.; KOROVINA, K.F.; IVANOVA, Z.A.

Food poisoning caused by watermelons. Gig.i san. 25 no.7:78-
79 JI '60. (MIRA 14:5)

1. Iz Orenburgskoy oblastnoy sanitarno-epidemiologicheskoy
stantsii.

(FOOD POISONING) (WATERMELONS)

IVANOVA, Z.A.

Tolerance of tuberculostatic preparations by elderly patients
with pulmonary tuberculosis. Trudy TSIU 63:123-127 '63.

(MIRA 17:9)

1. Kafedra tuberkuleza Tsentral'nogo instituta usovershenstvovaniya vrachey i Bol'nitsa Ministerstva putey soobshcheniya imeni Semashko.

KOSOY, Abram Isaakovich; IVANOVA, Z.D., red.; LAVRENOVA, M.B., tekhn.red.

[On fast ice] Na ledovom pripae. Moskva, Izd-vo "Morskoi
transport," 1960. 84 p. (MIRA 13:6)
(Arctic regions--Hydrographic surveying)

ISKANDEROV, Khskim Mukhametzhanovich; PEREKRESTOV, Stepan Yevdokimovich;
IVANOVA, Z.D., red.; MOSHAROVA, T.P., red.; SARAYEV, B.A.,
tekhn.red.

[Use of plastics in shipbuilding and ship repairs] Primenenie
plastmassovykh materialov v sudostroenii i sudoremonte. Moskva,
Izd-vo "Morskoi transport," 1960. 112 p.

(MIRA 14:4)

(Plastics)

(Shipbuilding--Supplies)

IVANOVA, Z.F., inzh.; KOVALENKO, N.A.

New filling and packing devices and automatic machines. Mekh.1
avtom.proizv. 16 no.4:27-32 Ap '62. (MIRA 15:4)
(Packaging machinery)

IVANOVA, Z.G.

EX

23

The effect of plasticizers on the physical and mechanical properties of cellulose acetate films. Z. G. Ivanova, *Org. Chem. Ind. (U. S. S. R.)* 3, 616 (1967). In this preliminary communication the application of known methods to the detm. of the phys., mech. and optical properties of cellulose acetate films are described. References. Chas. Blane

ASIA-51A METALLURGICAL LITERATURE CLASSIFICATION

OPEN

NATIONALS INDEX

STONI 57-0110

140000 72

100000 710

000000 700

000000 600

000000 500

000000 400

000000 300

000000 200

000000 100

000000 000

IVANOVA, Z. G.

Ca

The effect of plasticizers on the physical and mechanical properties of cellulose acetate films. II. Z. G. Ivanova. *Org. Chem. Ind. (U. S. S. R.)* 4, 371-6(1937); cf. C. A. 31, 7043f. - Films of 120 μ thickness were formed on a glass surface with 18% acetone-alc. soln. of cellulose acetate contg. 0.36% of plasticizers. These were: tritoyl phosphate (I), triphenyl phosphate (II), tributyl phosphate (III), dimethyl phthalate (IV), dimethylglycol phthalate (V) and *p*-methylenbenzylsulfamide (VI). The films were tested after aging at ordinary conditions and after treating for 3 days at 100°, with and without preliminary immersion in water for 2 days, and exposing to air with 60% relative humidity. The compatibility of cellulose acetate and the plasticizers in the films was tested at the temp. range of -60° to 60°. Conclusions. The compatibility is a function not only of the nature of plasticizers, but also that of the degree of cellulose esterification. All other conditions being equal, its limits are detd. by the temp. and duration of the film aging. After a period of 2-3 months the films contg. 42% II sepd. alternate layers of the plasticizer, while I and V sepd. oily layers. When added in small amts. all the plasticizers improved the mech. properties of films of low acid nos. The addn. of 24% VI gave a max. increase of the strength (63%) with a considerable decrease in the stretching capacity. V decreased the mech. strength of films with high

and no. 150% AcOH). Of the phosphate group II gave a max. increase of the mech. strength of film without affecting its stretching power. It is superior in stability and resistance to water and air humidity. Of the phthalate group IV is preferred, because it is an excellent gelatinizing agent and is capable of improving the compatibility of nongelatinizing plasticizers and the transparency of films and solns. It increased considerably the stretching, but decreased the film strength. The strength of films without plasticizers and with IV and V is increased by the thermal treatment, with and without the preliminary heating in water, while that of films with I and II is decreased, which can be explained by the destructive action of the liberated phenols and cresols. III and IV alone and in the films on heating at 60° and 60% humidity for 10 days lost in wt. 5-5.5%. V and VI are but little volatile (loss 0.4-0.5%), I practically not at all, while II gained in wt. This behavior of I and II is explained by partial oxidation. The rate of solvent evapn. from films was studied by heating cellulose acetate soln. without plasticizers and with 0, 18 and 36% II and IV at 60° for 9-11 days, then at 100° for 5 days and finally at 150° for 5 days. The results showed that the untreated films retain the residual solvent (0.2%) even after 25 days of drying and that with increasing concn. of plasticizers the rate of solvent evapn. increases. Chas. Blanc

13

A.S.T.M. METALLURGICAL LITERATURE CLASSIFICATION

IVANOVA, Z.G.

The effect of plasticizers on the physical and mechanical properties of cellulose acetate films. III. Z. G. Ivanova and Z. A. Rogovin. *J. Applied Chem. (U. S. S. R.)* 11, 1318 (1938 French, 1300 (1938); cf. Ivanova, *ibid.* 11, 1087. Films 100 μ thick were formed from 10% acetone soln. of cellulose acetate contg. plasticizers. The compatibility decreases with increase in mol. wt. for a given homologous series, and with mol. wt. and concn. of the cellulose acetate. *n*-Bu Me phthalate added in the amt. of a 20% decreased the mech. strength of cellulose acetate film. *n*-Bu, di-Bu and di-iso-Am phthalates added in the amts. of 5-10% increased the mech. strength of films somewhat but further addn. of the plasticizers decreased the strength. The strengthening effect increased with the mol. wt. plasticizer in the homolog series. Analogous results were obtained with acetates as plasticizers. Gelatinizing agents added to the cellulose acetate films decreased their strength. Addn. of small amts. of di-Bu and di-iso-Am phthalates to the fraction of same particle size increased the strength of films more than the small amts. added to the fraction of large particle size. Acetone in all cases decreased the strength of films. The strength of films prepd. from highly concd. soln. of cellulose acetate was higher than of those prepd. from less concd. solns. Addn. of 20% of acetn to 10% and 7% soln. of cellulose acetate decreased the strength of films by 31% and 17%, resp., whereas addn. of 20% of glucose pentacetate to the same solns. increased the strength of films by about 28% and 35%, resp. A. A. Rogovin.

ASB-55A METALLURGICAL LITERATURE CLASSIFICATION

ZINOV'YEVA, R.V.; IVANOVA, Z.G.; KORSAKOV, I.V.; SERGEYEV, A.P.

Vacuum cooling of neutralized products. Hidroliz. i leuokhim.
prom.8 no.5:19-21 '55. (MLRA 9:1)

1.Kanskiy gidroliznyy zavod.
(Wood--Chemistry)

VAYNSHTOK, V.V.; KARTININ, B.N.; KARAKASH, S.I.; Prinsipala uchastiye
IVANOVA, Z.G.

Effect of lead soap additives on the structure and properties
of lithium salt lubricants. Trudy MINKHIGP no.32:27-40 '60.
(MIPA 14:9)
(Lubrication and lubricants---Additives)

15.1120

24067
S/064/61/000/005/001/003
B110/B229

AUTHORS: Davydov, A. B., Ivanova, Z. G.

TITLE: Formation of inorganic elemental-organic structures in glue compositions with application of asbestos

PERIODICAL: Khimicheskaya promyshlennost', no. 5, 1961, 44 - 48

TEXT: In order to improve the mechanical properties, resistance to heat, water, oil, and the coefficient of thermal expansion of adhesives, various fillers are used. The purpose of the present work was to clarify the reaction mechanism between organosilicon and phenol formaldehyde resins and the fillers, and the influence of quantity and properties of the latter on the properties of binding agents. The influence of the fillers on the bonding strength was investigated in overlapping steel samples glued together, which had previously been degreased and sandblast-cleaned. After applying a thin layer of glue to the plates, evacuation and pressing for 2 hr at 250°C by means of a lever press was carried out (7 kg/cm²) in order to evaporate the solvent. Organosilicon resin with methyl and phenyl groups were investigated with silicon (resin A), or only with phenyl radi-

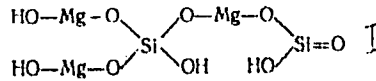
Card 1/9

21067

S/064/61/000/005/001/003
B110/3229

Formation of inorganic...

cals (resin B). In order to increase the bonding strength, phenol formaldehyde resins were added to both. Table 1 shows the results. Composition 1 consisted of (in parts by weight): resin A = 1. Phenol formaldehyde resin = 1. Hardener = 0.15. Composition II: resin B = 1. Phenol formaldehyde resin = 3. Hardener = 0.45. Addition of fillers caused, apart from decrease of strength, technical difficulties of application as a result of inhomogeneity. Bonding strength, however, resistance to heat, thermal stability, and thermal impact resistance of the resins were increased by asbestos. Chrysolite asbestos, much used in industry, does not change its strength as inorganic polymer of the following structure:

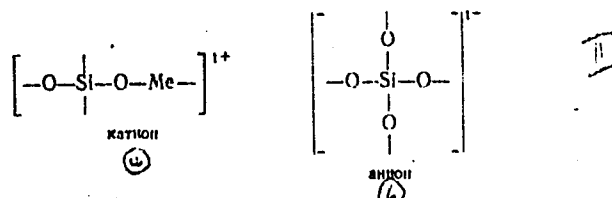


even if heated intensely (1/2 hr at 540°C, a few minutes at 2760°C). The specific surface of dried asbestos amounts to about $2 \cdot 10^3 \text{ cm}^2/\text{g}$. The positive and negative ions formed on its surface:

Card 2/9

21067
S/064/61/000/005/001/003
B110/B229

Formation of inorganic...



(a = cation, b = anion) act as "active centers" in resin polymerization. The authors investigated the polymerization of resin A with addition of finely ground and sifted asbestos of the type M-5-60 (M-5-60). With growing asbestos content the rate of polymerization was increased. Thermochemical investigations suggested a reaction of orthosilicic acid residues with metal hydroxides (Ca, Cr, Cu, Al, Fe). Thus, reactions with organosilicon resins are possible at the "active centers", above all in the presence of chain fragments. These can arise at a raised temperature, accompanied by separation of methyl and phenyl radicals and fracture of the Si-O-Si bond of polysiloxane. This was pointed out by K. A. Andrianov, M. V. Sobolevskiy (Ref. 10: Vysokomolekulyarnyye kremniyorganicheskiye soyedineniya, Oborongiz, 1949). In order to examine the possibility of binding with the functional alkoxy and acetoxy groups of resin, tetraethoxy
Card 3/9

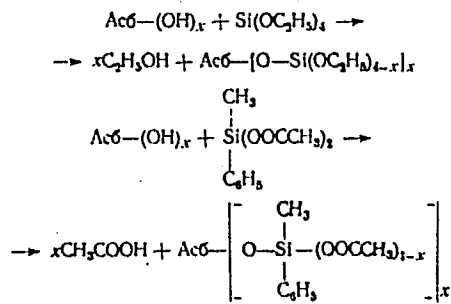
24067

S/064/61/000/005/001/003

B110/B229

Formation of inorganic...

and methyl phenyl diacetoxysilanes were added to asbestos. Asbestos was annealed for 24 hr at 450°C and heated for 1.5 hr at 150°C in vacuo. After filling of the flask with nitrogen, silane was introduced by vacuum distillation. With the heating of the asbestos for 2-4 hr with tetraethoxy silane (150°C), and methyl phenyl diacetoxysilane (180°C), it may be assumed that the following reaction went on:



(Acf = asbestos)

Card 4/9

24067

S/064/61/000/005/001/003
B110/B229

Formation of inorganic...

Thus, a formation of inorganic elemental-organic structures may be assumed, which improve the thermomechanical properties (e. g., resistance to heat) of the hardened binding agents. In order to determine the optimum quantity of asbestos in binding agents, asbestos was first ground by ball mills, sifted by sieve no. 100, and added to the resin. The best ratio is 0.75. With regard to fiber length, content of impurities, and dust there are various types of asbestos (Table 4). The tests were carried out with resin A and an asbestos/resin ratio = 0.75. To investigate the optimum compounds of resin and asbestos, the former was treated differently: reduction to small pieces in an aqueous medium (I), exposure to acid and alkaline solutions (III), and different solvents (IV). For (I) a special container with a perpendicular axis (extension of the electric motor shaft) with four blade knives was used for an intensive fragmentation of the fibers. For (II) the asbestos was added to the graduated solutions in beakers, sucked off and dried after decantation and rinsing. Table 5 shows the results. In (I) the asbestos fiber was heavily destroyed. In (II) the structure of the asbestos was destroyed by substitution. In (III) a gel-like silicic acid was first produced, which, together with the one to be found in the asbestos (2.1%), favors a chemisorption of the resin. ✓

Card 5/9

Formation of inorganic...

21067
S/064/61/000/005/001/003
B110/B229

With a prolonged alkali treatment SiO_2 is dissolved whereby chemisorption is reduced. Degreasing by acetone (IV) increases the bonding strength slightly at room temperature but not at 425°C . There are 1 figure, 5 tables, and 10 references: 7 Soviet-bloc and 3 non-Soviet-bloc. The three references to English-language publications read as follows: Ref. 2: Modern Plastics, 35, No. 10, 105, 218 (1958); Ref. 3: Plastics World, 16, No. 3, 7 (1958); Ref. 4: British Plastics, 31, No. 11, 452, 495 (1959).

Table 1. Influence of fillers on the strength of glue compounds.
Legend: 1) Filler; 2) quantity, parts by weight; 3) shear strength limit in kg/cm^2 for; 4) composition I; 5) without filler; 6) potash mica; 7) Al + fused alumina; 8) asbestos M-5-60; 9) composition II; 10) the laminae were not glued together.

Card 6/9

SOLODOVNIK, V.D.; DAVYDOV, A.B.; IVANOVA, Z.G.; MINDLIN, Ya.I.;
LEZNOV, N.S.

Properties of and the possibility of using organoborosilicon
polymers as components of heat-resistant adhesives. Plast.
massy no.3:39-42 '63. (MIRA 16:4)

(Adhesives) (Silicon organic compounds)
(Boron organic compounds)

AID REF: 975-5) 23 May

HEAT-RESISTANT ORGANOSILICON ADHESIVES BK-2 AND BK-6 (USSR)

Ivanova, Z. G., and A. B. Davydov. *Plasticheskiye massy*, no. 4, 1963, 37-39.
S/191/63/000/004/008/015

A description is given of a study of the physical and mechanical properties of adhesive joints formed by the asbestos-filled adhesives BK-2 and BK-6, based on organosilicon and modified-organosilicon resins, respectively. The tests were conducted with such materials as steels 30X1CA and 30X1CA, Ti alloy BT 4, glass-reinforced plastic BQT, and steel 30X1CA plus graphite. The highest bond strength is attained by joining the parts at 270°C for 3 hrs. The joints have a shear strength of 15 to 30 kg/cm² at 1000°C and withstand temperatures of 350 to 425°C and, for a short time, even of 1000°C. Joints formed by BK-2 can withstand service for several hours at 1000°C under a shear stress of 10 kg/cm², and joints with BK-6, 1000 hrs at room temperature under a shear stress of 108 kg/cm². At 425°C the joints withstand 3·10⁶ cycles of a 35-kg/cm² load and 15 to 20 (BK-2) or 5 (BK-6) thermal cycles (from -60 to 425°C). The joints resist tropical conditions, liquid hydrocarbons (5 days), and water (15 days). The failure of bonded nonmetallic materials at high temperatures is cohesive. Joints formed by BK-6 exhibit at room temperature properties superior to those with BK-2.

[EAO]

Card 1/1

1970 46-4*

DAVYDOV, A.B.; IVANOVA, Z.G.

Preliminary treatment of the asbestos plastics filler and its
sorption properties. Plast. massy no.1:46-48 '65. (MIRA 18:4)

DAVIDOV, A.S.; IVANOVA, Z.G.

Ways of reducing the hardening temperature of heat resistant
organosilicon glues. Plast. massy no.4:72-74 '65.

(MIRA 1336)

L 2165-66 EWT(m)/EPF(c)/EWP(v)/EWP(j)/T WW/DJ/WE/EM

ACCESSION NR: AP5024512

UR/0191/65/000/010/0056/0057
678.842:668.395.6

61
B

AUTHOR: Ivanova, Z. G.; Davydov, A. B. HSS

TITLE: Thermostability of adhesive VK-8 having increased strength and elasticity

SOURCE: Plasticheskiye massy, no. 10, 1965, 56-57

TOPIC TAGS: heat resistance, heat property, adhesive, adhesion, shear stress, impact stress, atmospheric humidity

ABSTRACT: The thermomechanical properties of VK-8 were examined to determine its suitability as an adhesive. Its shear strength compares favorably with that of adhesives VK-2 and VS-350 up to 350 C, but exceeds that of VS-350 and is less than that of VK-2 at higher temperatures to 1000 C. The cleavage and impact strengths of VK-8 are far superior to those of the other two adhesives. VK-8 may be used for bonding metallic and nonmetallic materials. It is resistant to mineral oil MK-8, fuel T-1, and gasoline. Its strength remained unchanged under tropical conditions for one month and is affected little by water. It does not

Card 1/2

L 2165-66

ACCESSION NR: AP5024512

0

corrode unprotected steel. Application in two layers is recommended-- the first layer to be held at room temperature for 1 hour and the second layer to be held at room temperature for one hour and at 60 C for 30 minutes. The material is then cured in 3 hours at 200 C under 3-5 kg/sq. cm. pressure

ASSOCIATION: None

SUBMITTED: 00

ENCL: 00

SUB CODE: MT

NR REF SOV: 003

OTHER: 000

Card2/2 *dy*

L 37218-66 EWP(j)/EMT(m)/T/EMP(v) IJP(c) RM/WW/JWD

ACC NR: AP6018128 (A) SOURCE CODE: UR/0191/66/000/006/0046/0048

AUTHOR: Zalikin, A. A.; Davydov, A. B.; Strepikheev, Yu. A.; Ivanova, Z.G.

ORG: none

42
41
B

TITLE: Use of polycyclic polyisocyanates as components in cold curing adhesive compositions

SOURCE: Plasticheskiye massy, no. 6, 1966, 46-48

TOPIC TAGS: isocyanate resin, polyester plastic, adhesive, adhesion, heat resistance

ABSTRACT: The possibility of using polycyclic polyisocyanates (A) in adhesives that will cure without heat to attain improved heat stability was investigated. A, made of aniline, o-toluidine, or o-chloroaniline with formaldehyde, were used as 50% acetone or toluylene diisocyanate solutions. To prepare the adhesive various polyesters were added, also as 50% acetone solutions or as powders. The components were mixed, catalyzed with a 5% aqueous potassium methacrylate solution, mixed again and spread onto steel or duralumin surfaces 30-40 minutes later. Bond strength and heat stability depended on the composition of the polyisocyanate, increasing with increase in its molecular weight and

Card 1/2

UDC: 678.664.668.395.6

"APPROVED FOR RELEASE: 08/10/2001

CIA-RDP86-00513R000619230009-1

APPROVED FOR RELEASE: 08/10/2001

CIA-RDP86-00513R000619230009-1"

USSR/Cultivated Plants. Fruits. Berries.

II

Abs Jour : Ref Zhur-Biol., No 15, 1958, 63339

Author : Zayets, V. K., Ivanova, Z. I.
Inst : Institute ineni I. V. Michurin.
Title : Several Methods in Directed Training of
Hybrid Apple Seedlings.

Orig Pub : Agrobiologiya, 1957, No 6, 120-121

Abstract : In 1953, at the Institute ineni I. V. Michurin a part of the seedlings of each of four hybrid families were budded "onto themselves". In 1955, observations demonstrated that the number of cultivated seedlings increased through use of this technique, whereas the number of semi-cultivated and wild seedlings decreased. As hybrid seedlings are trained on an enriched

Card : 1/2

*see Ref Zhur-Biologiya ineni I. Michurin
160 g. Michurinsk*

L 27768-66 - EWP(j)/ENT(m) LJP(c) RM/WH

ACC NR: AP6018499

SOURCE CODE: UR/0079/65/035/011/1974/1976

AUTHOR: Ivanova, Zh. M.; Kirsanov, A. V.34
B

ORG: Institute of Organic Chemistry, AN UkrSSR (Institut organicheskoy khimii AN UkrSSR)

TITLE: Fluorochloride of phenylphosphonic acid and fluorides of monoamides of phenylphosphonic acid

SOURCE: Zhurnal obshchey khimii, v. 35, no. 11, 1965, 1974-1976

TOPIC TAGS: fluorinated organic compound, phosphorus chloride, primary aromatic amine, secondary amine, organic synthetic process, organic phosphorus compound, ester, chlorinated organic compound

ABSTRACT: The reaction of fluorides of monoesters of phenylphosphonic acid with phosphorus pentachloride results in the formation of the fluorochloride of phenylphosphonic acid, which reacts with primary and secondary amines to give fluorides of monoamides of phenylphosphonic acid. A simpler method was developed for the synthesis of fluorides of monoesters of phenylphosphonic acid, the starting materials for the production of the fluorochloride of phenylphosphonic acid: the dichloride of phenylphosphonic acid is successively treated with alcohol and potassium bifluoride without isolating the chlorides of monoesters of phenylphosphonic acid. Orig. art. has: 4 formulas. [JPRS]

SUB CODE: 07/ SUBM DATE: 09Oct64 / ORIG REF: 003 / OTH REF: 003

Card: 1/1 c.c.

UDC: 547.241

IVANOVA, Z.I., kandidat veterinarnykh nauk; KHITENKOVA, L.P., mladshiy nauchnyy sotrudnik.

Amino-atabrine treatment of monieziasis in sheep. Veterinariia 30
no.11:58 N '53. (MLRA 6:11)

1. Gosudarstvennyy nauchno-kontrol'nyy institut veterinarnykh
prepartov Ministerstva sel'skogo khozyaystva i zagotovok SSSR.

IVANOVA, Z. I.

IVANOVA, Z.I.; KHITENKOVA, L.P.

Treatment of Moniezia infection in sheep with aminoacrichine. Farm.
i toks. 17 no.3:50-51 My-Je '54. (MIRA 7:8)

1. Gosudarstvennyy nauchno-kontrol'nyy institut veterinarnyykh
preparatov.

(SHEEP, diseases,

*Moniezia infect., ther., aminoquinacrine)

(TAPEWORMS,

*Moniezia, infect. in sheep, ther., aminoquinacrine)

USSR / Diseases of Farm Animals. Diseases Caused
by Helminths.

R-2

Abs Jour: Ref Zhur-Biol., No 2, 1958, 7341

Author : Z. I. Ivanova, L. P. Khitenkova

Inst : Not Given

Title : Tests of the Anthelmintic Properties of Atebrin
and Amino-Atebrin

Orig Pub: Tr. Gos. nauchno-kontrol'n. in-ta po vet-
preparatam, 1956, 6, 302-311

Abstract: Amino-atebrin has a definite vermifugal action
in the treatment of "moniezia" of lambs in
doses of 0.2 grams per kilogram, the effectiveness
of its action on pre-imaginal forms of "mon-
iezia" was 42.6 percent in imaginal 69 percent.
A study of "formo" dynamics of I indicated that
it is not retained in the blood for long and

Card 1/2

31

IVANOVA, Z.I.

Effectiveness of piperazine sulfate in treating ascariasis of hens.
Ptitsevodstvo 9 no.4:42 Ap '59. (MIRA 12:6)

1. Gosudarstvennyy nauchno-kontrol'nyy institut vetpreparatov Ministerstva
sel'skogo khozyaystva SSSR.
(Parasites--Poultry)
(Ascarids and Ascariasis) (Piperazine)

IVANOVA, Z.I., kand.veter. nauk

Iomezan as an anthelmintic in sheep monieziasis. Veterinaria no.12:
22-23 D '63. (MIRA 17:2)

1. Gosudarstvennyy nauchno-kontrol'nyy institut veterinarnykh prepa-
ratov Ministerstva sel'skogo khozyaystva SSSR.

GORDIYENKO, V.I.; KOVALENKO, P.N.; IVANOVA, Z.I.

Error of amperometric titration of type $A+B \rightarrow AB$ reactions
in cases where one of the particles doesn't take part in
the electrode reaction. *Izv. vys. ucheb. zav.; khim. i khim. tekhn.*
8 no. 4: 549-554 '65. (MIRA 18:11)

1. Rostovskiy-na-Donu gosudarstvennyy universitet, kafedra
analiticheskoy khimii.

KOGAN, F.I.; KOVALENKO, P.N.; IVANOVA, Z.I.

Electrolytic reduction of tin in the presence of tungsten. Zhur.
anal. khim. 20 no.3:329-334 '65. (MIRA 18:5)

1. Rostovskiy-na-Donu gosudarstvennyy universitet.

IVANOVA, I. I.

"Potentiometric Titration of Chlorides and Sulfates Using the Method of Additions." Cand Chem Sci, Novocherkassk Polytechnic Inst, Novocherkassk, 1954. (KI, No 13, Mar 55)

So: Sum. No 670, 29 Sept 55 - Survey of Scientific and Technical Dissertations Defended at USSR Higher Educational Institutions (15)

"APPROVED FOR RELEASE: 08/10/2001

CIA-RDP86-00513R000619230009-1

APPROVED FOR RELEASE: 08/10/2001

CIA-RDP86-00513R000619230009-1"

"APPROVED FOR RELEASE: 08/10/2001

CIA-RDP86-00513R000619230009-1

APPROVED FOR RELEASE: 08/10/2001

CIA-RDP86-00513R000619230009-1"

"APPROVED FOR RELEASE: 08/10/2001

CIA-RDP86-00513R000619230009-1

APPROVED FOR RELEASE: 08/10/2001

CIA-RDP86-00513R000619230009-1"

IVANOVA, Z.I.; KOVALENKO, P.N.

Potentiometric determination of calcium and magnesium. Uch. zap.
RGU 40:93-101 '58; (MIRA 13:10)
(Calcium--Analysis) (Magnesium--Analysis)

IVANOVA, Z.I.; KOVALENKO, P.N.

Mercurimetry in the potentiometric determination of chlorides. Uch.-
zap. RGU 41:113-122 '58. (MIRA 15:1)
(Chlorides) (Potentiometric analysis) (Mercurimetry)

IVANOVA, Z.I.; KOVALENKO, P.N.

Potentiometric determination of manganese in zinc electrolytes.
Uch.zap.IGU no.60:123-127 '59. (MIRA 14:10)
(Manganese--Analysis) (Potentiometric analysis)

IVANOVA, Z.I.; KOVALENKO, P.N.

Potentiometric method for determining chlorides in dry products
of zinc manufacture. Uch.zap.RGU no.60:129-134 '59.

(Chlorides)

(Zinc)

(MIRA 14:10)

5(2), 5(4)

AUTHORS:

Ivanova, Z. I. and Kovalenko, P. N. SOV/75-14-1-17/32

TITLE:

Potentiometric Determination of Phosphate Ions (Potentsiometricheskoye opredeleniye fosfat-ionov)

PERIODICAL:

Zhurnal analiticheskoy khimii, 1959, Vol 14, Nr 1, pp 87-90 (USSR)

ABSTRACT:

The authors worked out a rapid and exact method for the potentiometric titration of phosphate ions, in which a mercury electrode and a titrator consisting of a solution of mercury (II) nitrate is used. A saturated calomel electrode is used for comparison. The indicator electrode used in this case offers several advantages compared to the mercury electrodes hitherto used (Refs 1,2). It is illustrated and described in detail in the present paper. An investigation of the accuracy of this method showed that with a decrease of phosphate solutions concentration errors increase. For quantities of not less than 5 mg/l the accuracy of potentiometric titration is satisfactory. The reproducibility of results is good. An addition of ethyl alcohol to the solution reduces the error committed in the titration of small quantities of phosphate ions, as alcohol on the one hand diminishes the adsorption of phosphate ions,

Card 1/3

Potentiometric Determination of Phosphate Ions

SO7/75-14-1-17/32

and, on the other, reduces the solubility of the precipitate (Refs 3,4). The bottom extracts to be analyzed frequently contain colloidal substances, which, however, do not disturb potentiometric determination. The addition of gelatin in quantities that are 20 to 100 times in excess of those of phosphate ions exercises practically no influence upon the results. The error committed when determining small quantities of phosphate ions can be considerably reduced and even fully eliminated if determination is carried out by the method of double addition (Refs 5-8). A comparison of the respective results is given by a table. Chloride ions which very frequently occur in samples together with phosphate, do not change titration results even if present in quantities that are 100 times greater. It is even possible to determine phosphate and chlorides successively from one and the same sample. The titration of phosphate can be carried out in the pH - range of 10 - 3. The ions Ca^{2+} , Ba^{2+} , Mg^{2+} and SO_4^{2-} do not disturb determination. The method was used for the analysis of minerals. It was found that as regards accuracy it is not surpassed by the gravimetric method of determination (double precipitation as pyrophosphate). The

Card 2/3

Potentiometric Determination of Phosphate Ions SOV/75-14-1-17/32

potentiometric method has the advantage of being rapid and simple (analysis takes 1.5 to 2 hours). There are 3 figures, 3 tables, and 8 Soviet references.

ASSOCIATION: Rostovskiy gosudarstvennyy universitet (Rostov State University)

SUBMITTED: September 23, 1957

Card 3/3

5(2)

AUTHORS:

Ivanova, Z. I., Kovalenko, P. N.

SOV/32-25-3-12/62

TITLE:

Determination of Chlorides in Solutions of Zinc Production According to the Method of Noncompensated Potentiometric Titration (Opredeleniye khloridov v rastvorakh tsinkovogo proizvodstva metodom nekompensatsionnogo potentsiometricheskogo titrovaniya)

PERIODICAL:

Zavodskaya Laboratoriya, 1959, Vol 25, Nr 3, pp 290 - 291 (USSR)

ABSTRACT:

A potentiometric noncompensated method was devised for the titration of small amounts of chloride in zinc and cadmium electrolytes. The method is based upon the application of a titrated mercury solution. Metallic mercury is used as an indicator electrode and a tungsten electrode serves as comparison electrode (Fig). The titration vessel has already been described (Ref 1). Solutions of a chloride content of 0.2 - 120 mg per 100-150 ml may be investigated. The limiting error in the determination is between ± 0.3 and $\pm 3.7\%$ (Table 1). At a pH value of from 3 to 8 the most accurate results are obtained. The presence of up to 130 g/l zinc, up

Card 1/2

Determination of Chlorides in Solutions of Zinc Production SOV/32-25-3-12/62
According to the Method of Noncompensated Potentiometric Titration

to 14 g/l manganese, up to 90 mg/l cadmium, up to 50 mg/l cobalt, up to 10 mg/l antimony, and up to 2 mg/l copper does not disturb the determination of chloride (Table 2). The maximum deviation of potentiometric determination from the analysis carried out by the gravimetric methods is $\pm 0.72\%$. Duration of analysis: 5 - 10 minutes. There are 1 figure, 2 tables, and 1 Soviet reference.

ASSOCIATION: Rostovskiy gosudarstvennyy universitet (Rostov State University)

Card 2/2

S/828/62/000/000/016/017
E071/E135

AUTHORS: Zelikman, A.N., Kreyn, O.Ye., Nisel'son, L.A.,
Gorovits, M.N., and Ivanova, Z.I.

TITLE: Separation of tungsten and molybdenum by utilising the
difference in volatility of their chlorides and
oxychlorides

SOURCE: Razdeleniye blizkikh po svoystvan redkikh metallov.
Mezhvuz. konfer. po metodam razdel. blizkikh po svoyst.
red. metallov. Moscow, Metallurgizdat, 1962, 186-197.

TEXT: A method of separating tungsten from molybdenum, based
on evaporation of MoO_2Cl_2 on heating of molybdenum trichloride
with sodium chloride to a temperature of 600-700 °C, was studied.
With contents of 0.01 to 0.16 and 1.035% W in the starting
molybdenum trioxide the purified product contained less than
(6 to 9) $\times 10^{-4}$ and 1.5×10^{-3} % W respectively. It was established
that it is possible to separate tungsten and molybdenum by
rectification of their higher chlorides, WCl_6 and MoCl_5
(rectification column data: diameter 30 mm, height 600 mm,
15 sieve plates, with 45 holes of 1 mm diameter).

Card 1/2

Separation of tungsten and molybdenum... S/828/62/000/000/016/017
E071/E135

From tungsten sexquichloride containing about 5% MoCl₅, and from molybdenum pentachloride containing about 5% WCl₆, purified chlorides containing below 0.01% of admixture of molybdenum or tungsten respectively with yields of the main fractions of 70-80% were obtained.

There are 6 figures and 7 tables.

Card 2/2

IVANOVA, Z.I.; KOVALENKO, P.N.

Mercurimetric determination of halides by the potentiometric method. Zhur.anal.khim. 17 no.6:739-742 S '62. (MIRA 16:1)

1. Rostovskiy gosudarstvennyy universitet.
(Halides) (Mercurimetry) (Potentiometric analysis)

S/030/62/035/007/004/013
D267/D307

AUTHORS: Selikman, A.M., Kreyon. O.Ye., Nisel'son, L.A. and
Ivanova, E.I.

TITLE: Separation of tungsten from molybdenum by the recti-
fication of their chlorides

PERIODICAL: Zhurnal prikladnoy khimii, v. 35, no. 7, 1962,
1467-1472

TEXT: WCl_6 and $MoCl_5$ were obtained from pure metals by
chlorination at 600-750°C, distilled in an argon atmosphere to separ-
ate the oxychlorides, after which WCl_6 with about 5% $MoCl_5$ or vice
versa were rectified on a plate column. It was found that the
impurity content of the purified chloride is less than 0.015%, and
that the yield of the rectified chloride is 70-80% of theoretical. ✓
There are 3 figures and 3 tables.

SUBMITTED: June 23, 1961

Card 1/1

L 17707-63

EWP(q)/EWT(m)/BDS AFPTC/ASD Pad JE/HW/WH

ACCESSION NR: AP3003998

S/0073/05/029/007/0755/0758

AUTHORS: Ivanova, Z. I.; Tay*venkova, T. V.; Kovalenko, P. N.

b2
61

TITLE: Spectrographic determination of zirconium from solutions during the analysis of nickel and its alloys

SOURCE: Ukrainskiy khimicheskiy zhurnal, v. 29, no. 7, 1963, 755-758

TOPIC TAGS: spectrographic analysis, zirconium, nickel, sodium, iron

ABSTRACT: A direct spectrographic method for zirconium analysis has been developed. The analysis is made from the solutions containing large amounts of nickel (140-150 mg Ni to 0.04 mg Zr). The method is sensitive to 5×10^{-5} mole/l or 0.0004%. The effect of acidity and the effect of sodium salts and iron on the determination of zirconium was investigated. It was found that best results are obtained at a pH of the solution of 1-2. The presence of sodium nitrate adds to the possibility of obtaining more reproducible results. Iron does not interfere with the determination of zirconium. This method can be applied to the analysis of solutions of zirconium salts with the introduction of nickel as an internal standard and in the analysis of Fe-Ni-Zr alloys, acid resistant and magnetic nickel and cobalt alloys after their dissolution. Orig. art. has: 1 table and 3 figures.

Card 1/2 Rostov-on-Don State University

TSYVENKOVA, T.V.; KOVALENKO, P.N.; IVANOVA, Z.I.

Electrolytic separation of nickel from solutions containing thorium salts. Zhur.anal.khim. 18 no.10:1222-1227 0 '63. (MIRA 16:12)

1. Rostov State University.

KOGAN, F.I.; KOVALENKO, P.N.; IVANOVA, Z.I.

Electrolytic separation of indium on a solid cathode for analytical purposes. Zhur. anal. khim. 19 no. 1:79-83 '64. (MIRA 17:5)

1. Rostovskiy gosudarstvennyy universitet.

GORDIYENKO, V.I.; KOVALENKO, P.N.; IVANOVA, Z.I.

Amperometric determination of manganese in a zinc electrolyte.
Zav. lab. 30 no.1:31 '64. (MIRA 17:9)

1. Rostovskiy gosudarstvennyy universitet.

elements 4