L 63353-65
ACCESSION NR: AP5011277

physicochemical properties. The group-specific and type-specific components of the soluble antigen are bound to the same fractions. The group-specific antigen of R. prowazeki, shared in common by R. mooseri, accompanied the type-specific antigen of R. prowazeki through the purifying stages, and could not be isolated by ammonia sulfate salting out, chromatographic separation, or a combination of both methods. The soluble antigen of the strain E vaccine has the same physicochemical properties as that of the Breinl virulent strain, and also consists of 3 different fractions. It should be noted that the purification of soluble R. prowazeki antigen preparations by ammonia sulfate salting out, followed by fractionating with DEAE-cellulose filled columns, purifies the antigen by 40-50 times. Orig. art. has: 2 figures.

ASSOCIATION: None.

SUBMITTED: 02Apr64 ENCL: 00 SUB CODE: LS

NR REF SOV: 005 OTHER: 006

Card 2/2

L 30998-66 EWT(m)/EWP(t)/ETI/EWP(k) JD

ACC NR: AP6007715 SOURCE CODE: UR/0413/66/000/003/0117/0117

INVENTOR: Malin, V. P.; Malin, A. P.; Malina, A. P.

ORG: none

TITLE: A method of manufacturing multilayer billets from powder materials. Class 49, No. 178653

SOURCE: Izobreteniya, promyshlennyye obraztsy, tovarnyye znaki, no. 3, 1966, 117

TOPIC TAGS: clad plate, clad sheet, clad metal, composite metal, composite metal billet, sintered billet, sintered metal

ABSTRACT: This Author Certificate introduces a method of manufacturing composite billets from powder materials by hydraulic pressure. In order to improve the quality of the product, first the billet of the base material is compacted. This billet is then machined to obtain a rough or corrugated surface. The machined billet is placed in a mold of larger diameter, the mold is filled with powder of the cladding material, and is pressed again. [WW]

SUB CODE: 11/ SUBM DATE: 23Dec64/ ATD PRESS: 4214

Card 1/1 UDC: 621.762.043—419

MALINA, Yu. F.

MALINA, Yu. F.: "Synthetic investigation of the quinine alkaloids". Moscow, 1955. Min Higher Education USSR. Moscow Inst of fine Chemical Technology imeni M.V. Lomonosov. (Dissertations for the Degree of Candidate of Chemical Sciences).

SO: Knizhnaya letopis' No 45, November 5, 1955. Moscow.

5(3) SOV/153-58-5-7/28

AUTHORS: Yevstigneyeva, R. P., Malina, Yu. F., Preobrazhenskiy, N. A.

TITLE: Synthesis of Cis and Trans Homocincho Loipone (Sintez tsis- i trans-gomotsinkholoyponov)

PERIODICAL: Izvestiya vysshikh uchebnykh zavedeniy. Khimiya i khimicheskaya tekhnologiya, 1958, Nr 5, pp 46-51 (USSR)

ABSTRACT: The authors extended the earlier (Refs 1-4, 6, 7) devised synthesis scheme to the compounds of indole structure, as far as alkaloids of this group are of theoretical and practical interest as well (Ref 5). Homocincho loipone and homo merochinene are of importance for the synthesis of the alkaloids of the indole group according to the scheme mentioned. The synthesis of homocincho loipone described in the present paper was carried out on the basis of the diethyl ester of the β-(α'-cyan)-propyl glutaric acid. This ester is the most important semiproduct in the synthesis of the alkaloid emetin (Refs 6, 7). By hydrogenating the said ester 4-carbethoxy methyl-5-ethyl-piperidone-2 (by-product in the emetin production) is obtained in 2 isomeric forms: 1) Crystalline (II-a), and 2) Oily (II-b). The synthesis with these two substances was

Card 1/4

carried out separately. The reduction of the said piperidone with lithium aluminum hydride leads to 3-ethyl-4-(β-oxy ethyl)-piperidines (III-a and b). The crystalline piperidone unsoluble in ether was reduced in dioxane, the oily one in ether. By the action of thionyl chloride upon the hydrochlorides of the said piperidines hydrochlorides of the 3-ethyl-4-(β-ethyl chloride)-piperidines are formed. Without isolation these are transformed into N-acetyl-3-ethyl-4-(β-ethyl chloride)-piperidines (IV-a and b). When treating the latter with potassium cyanide N-acetyl-3-ethyl-4-(β-ethyl cyanide)-piperidines (V-a and b) are formed. The saponification of these piperidines finally yields 3-ethyl-4-(β-carboxyl-ethyl)-piperidines, i. e. homocincho loipones (VI-a and b). Chlorine aurates of homocincho loipone were synthesized: a) from the crystalline form of 4-carbethoxy-methyl-5-ethyl-piperidone-2 (II-a) with a melting point of 174.4-175°; b) from the oily form (II-b) with a melting point of 194.5-195°. The structure of the synthesized substances was checked by comparison of the intermediate products (III-a and b) with 3-ethyl-4-(β-oxy ethyl)-piperidine (III-v), which had been synthesized by way of the merochinene stage from natural quinine. As is known, the piperidine products

Synthesis of Cis and Trans Homocincho Loipone

of the cinchona bark-alkaloids maintain their cis configuration. Table (p 48) gives the characteristics of the compounds synthesized. Infrared spectra (Fig p 48, taken by Yu. N. Shenker) proved the identity of the synthesized substances mentioned (III-a, b and v) with those from natural quinine. Based on these spectra as well as on the melting points the authors arrived at the conclusion that the homocincho loipone synthesized from the semi-product corresponds to a cis-configuration, whereas that from the oily type corresponds to a trans-configuration.
There are 1 figure, 1 table, and 7 Soviet references.

ASSOCIATION: Moskovskiy institut tonkoy khimicheskoy tekhnologii imeni M. V. Lomonosova, Kafedra tekhnologii lekarstvennykh i dushistykh veshchestv (Moscow Institute for Fine Chemical Technology imeni M. V. Lomonosov, Chair of the Technology of Medicinal Substances and Aromatics)

MALINA, Yu. F.

23

PHASE I BOOK EXPLOITATION SOV/5628

Akademiya nauk SSSR. Institut biologicheskoy fiziki

Rol' perekisey i kisloroda v nachal'nykh stadiyakh radiobiologicheskogo effekta (Role of Peroxides and Oxygen During Primary Stages of Radiobiological Effects) Moscow, 1960. 157 p. 4,500 copies printed.

Responsible Ed.: A. M. Kuzin, Professor; Ed. of Publishing House: K. S. Trincher; Tech. Ed.: P. S. Kashina.

PURPOSE : This collection of articles is intended for scientists in radiobiology and biophysics.

COVERAGE: Reports in the collection deal with the role of peroxides and oxygen in the primary stages of a radiobiological effect. They were presented and discussed at a symposium held December 25-30, 1958, organized by the Institut biofiziki AN SSSR, (Institute of Biophysics, AS USSR). Twenty-eight Moscow scientists, radiobiologists, radiochemists, physicists, and

Card 1/5

Role of Peroxides and Oxygen (Cont.) SOV/5628

physical chemists took an active part in the symposium. Between the time of its conclusion and the publication of the present book some of the materials were expanded. In addition to the authors the following scientists participated in the discussion: L. A. Tummerman, V. S. Tongur, G. M. Frank, Yu. A. Kriger, E. Ya. Grayevskiy, N. N. Demin, B. N. Tarusov, and I. V. Vereshchenskiy. References follow individual articles.

TABLE OF CONTENTS:

5.3610

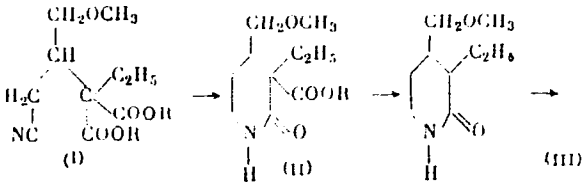
77385
SOV/79-30-1-46/78

AUTHORS: Malina, Yu. F., Yevstigneyeva, R. P., Preobrazhenskiy, N. A.

TITLE: Synthesis of cis-Homocincholoipon

PERIODICAL: Zhurnal obshchey khimii, 1960, Vol 30, Nr 1, pp 213-216 (USSR)

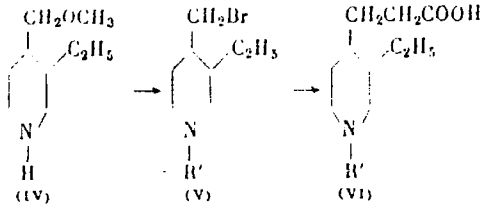
ABSTRACT: The synthesis of cis- and trans-homocincholoipons based on diethyl ester of β-(α'-cyanopropyl)glutaric acid was reported previously (Izv. vyssh. uchebn. zaved., MVO SSSR, Khimiya i khim. tekhnolog., 1958, Nr 5, p 46). The present study deals with the synthesis of cis-homocincholoipon (VI; R'=H) based on ethyl ester of the mononitrile of α-ethyl- α -carboethoxy- β -methoxy-methylglutaric acid (I; R=C_2H_5):



Card 1/4

Synthesis of cis-Homocincholoipon

77385
SOV/79-30-1-46/78



The reduction of ester (I) in ethanol in the presence of Raney nickel gave 3-ethyl-3-carboethoxy-4-methoxy-methylpiperidone-2 (II; R=C_2H_5) in two isomeric forms: (1) bp 175-177° C at 1 mm; and (2) bp 210-215° C (1 mm). Fraction 175-177° C was used in the subsequent reactions. Saponification of piperidone (II) (R = C_2H_5) with KOH in water-alcohol solution gave the acid (II; R = H) which on decarboxylation gave 3-ethyl-4-methoxy-methylpiperidone-2 (III). Reduction of (III) with lithium aluminum hydride in dioxane gave 3-ethyl-4-

Card 2/4

Synthesis of cis-Homocincholoipon

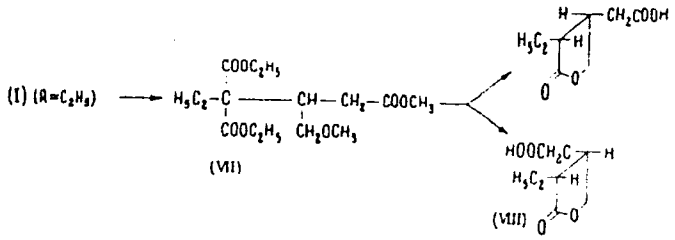
77385
SOV/79-30-1-46/78

methoxymethylpiperidine (IV). The latter, on treatment with 47% hydrobromic acid, gave 1-nitroso-3-ethyl-4-bromomethylpiperidine (V; R'=NO), which on condensation with sodium malonate, saponification, and decarboxylation gave 1-nitroso-3-ethyl-piperidyl-4-propionic acid (VI; R'=NO). Finally, the elimination of the nitroso-group by heating the latter acid with cuprous chloride gave cis-homocincholoipon (VI; R' = H; mp 172-172.5° C). The same starting materials and same type of reactions can be applied also for the synthesis of pilocarpine alkaloids. Ester I ($R=C_2H_5$) on treatment with methanol saturated with HCl gave methyl ester of γ,γ-dicarboethoxy-β-methoxymethylcaproic acid (VII). The latter was hydrolyzed with HCl or 40% hydrobromic acid, and yielded a mixture of diastereomeric α-ethylhomo-paraconic acids (VIII; mp 48-60° C), one of which was identified as racemic homopilopic acid (mp 102-103° C), the other as racemic homoisopilopic acid (mp 73-74° C).

Card 3/4

Synthesis of cis-Homocincholoipon

77385
SOV/79-30-1-46/78



There are 2 references, 1 U.S., 1 Soviet. The U.S. reference is: C. F. Koelsch, J. Am. Chem. Soc., 68, 146 (1946).

ASSOCIATION: Moscow Institute of Fine Chemical Technology (Moskovskiy institut tonkoy khimicheskoy tekhnologii)

SUBMITTED: December 26, 1958

Card 4/4

LOMAKIN, M.S.; MALINA, Yu.F.

Comparative study on the antigenic structure of tumor and homologous normal cells. Report No.3: Immunobiological characteristics of desoxyribonucleoproteins isolated from Guerin's carcinoma and normal uterus in rats. Biul. eksp. biol. i med. 51 no.3:88-93 Mr '61. (MIRA 14:5)

1. Iz laboratorii neinfektsionnoy immunologii (zav. - prof. I.N. Mayskiy) i radiobiologicheskoy gruppy (rukovoditel' - kandidat khimicheskikh nauk P.I.TSeytlin) laboratorii biokhimii (zav. - doktor khimicheskikh nauk V.S.Tongur) Instituta eksperimental'noy biologii (dir. - prof. I.N.Mayskiy) AMN SSSR, Moskva. Predstavlena deystvitel'nym chlenom AMN SSSR N.N.Zhukovym-Verezhnikovym).
(TUMORS) (UTERUS) (NUCLEOPROTEINS)

UNKOVSKIY, B.V.; MALINA, Yu.F.; SOKOLOVA, T.D.

Stereochemistry of acetylene synthesis. Part 4: Synthesis and spatial configuration of the geometric isomers of 1,2-dimethyl-4-ethynyl-4-piperidol and their derivatives. Zhur. org. khim. 1 no.4:699-706 Ap '65. (MIRA 18:11)

1. Moskovskiy institut tonkoy klimicheskoy tekhnologii imeni Lomonosova.

ACC NR: AP6025388 SOURCE CODE: UR/0366/66/002/007/1148/1155

Unkovskiy, B.V.;

AUTHOR: Belyanin, V. B.; Urinovich, Yo. M.; Malina, Yu. F.

ORG: Moscow Institute of Fine Chemical Technology imeni M. V. Lomonosov (Moskovskiy institut tonkoy khimicheskoy tekhnologii)

TITLE: Stereochemistry of cyanohydrin synthesis. Part 1: Conformational study of stereoisomeric 1,2-dimethyl-, 1,3-dimethyl- and 1,2,5-trimethyl-4-carbomethoxy-4-piperidinols

SOURCE: Zhurnal organicheskoy khimii, v. 2, no. 7, 1148-1155

TOPIC TAGS: stereochemistry, IR spectrum, piperidinol

ABSTRACT: IR absorption spectra were used to study the conformations of stereoisomeric 1,2-dimethyl-, 1,3-dimethyl- and 1,2,5-trimethyl-4-carbomethoxy-4-piperidinols. The study confirmed the spatial configurations ascribed to these compounds on the basis of their configurative relationship to the geometric isomers 1,2-dimethyl-, 1,3-dimethyl- and 1,2,5-trimethyl-4-acetyl-4-piperidinols. The spatial conformations of the compounds in solutions and the characteristics of IR spectra were correlated with the diverse character of interactions of their functional groups depending upon their spatial orientation. The correlation established between the IR spectra and the conformations of the functional groups can be used for determining the spatial structure of other analogous compounds. Orig. art. has: 1 figure.

Card 1/2 UDC: 547.823+541.634+543.422

ACC NR: AP6025388

SUB CODE: 07/ SUBM DATE: 03Apr65/ ORIG REF: 006/ OTH REF: 008

Card 2/2

9.1300 (also 1006, 1130)

S/109/61/006/002/008/023
E140/E435

AUTHORS: Katsenelenbaum, B.Z. and Malina, Z.A.

TITLE: The Design of Tapers for the Symmetrical Magnetic Wave in a Circular Waveguide

PERIODICAL: Radiotekhnika i elektronika, 1961, Vol.6, No.2, pp.228-233

TEXT: The problem is to design waveguide tapers for transmission of the H_{01}-wave in circular waveguide with minimum conversion loss. The method used is based on the authors' previous results (Refs.1 and 3) (studied also by H.Unger, Ref.2). The treatment of critical sections is based on the authors' previous work (Ref.4). The method is based on the now well-known analogy applying to a certain approximation between the problem considered and that of finding the optimum form of variation of transmission line wave impedance for a matching section between two lines with differing wave impedances. The precision of the method depends on neglecting the difference between the wave length of the H_{01}- and H_{02}-waves in the waveguide and in free space. Under these conditions, the waveguide taper is calculated on the basis of optimal results known from transmission line theory. Two cases

The Design of Tapers ...

are considered, one with the absence of critical sections, the other in their presence. The results obtained show that the approximation used is valid in the former case. To handle the latter case a more exact approximation, involving greater calculations, is given. This modification, being more general, is also applicable to the case of absence of critical sections but the results are not more satisfactory than the simplified method applicable to that case. There are 4 figures, 1 table and 8 references: 4 Soviet and 4 non-Soviet.

ASSOCIATION: Institut radiotekhniki i elektroniki AN SSSR
(Institute of Radioengineering and Electronics AS USSR)

SUBMITTED: June 24, 1960

Card 2/2

YELINSON, M.I.; DOBRYAKOVA, F.F.; KRAPIVIN, V.F.; MALINA, Z.A.; YASNOPOL'SKAYA, A.A.

Concerning the theory of field emission and thermoionic field emission of metals and semiconductors. Radiotekh. i elektron 6 no.8:1342-1353 Ag '61. (MIRA 14:7)
(Field emission) (Metals--Electric properties) (Semiconductors)

ISAYENKO, Yu.M.; MALIN, V.V.; MALINA, Z.A.

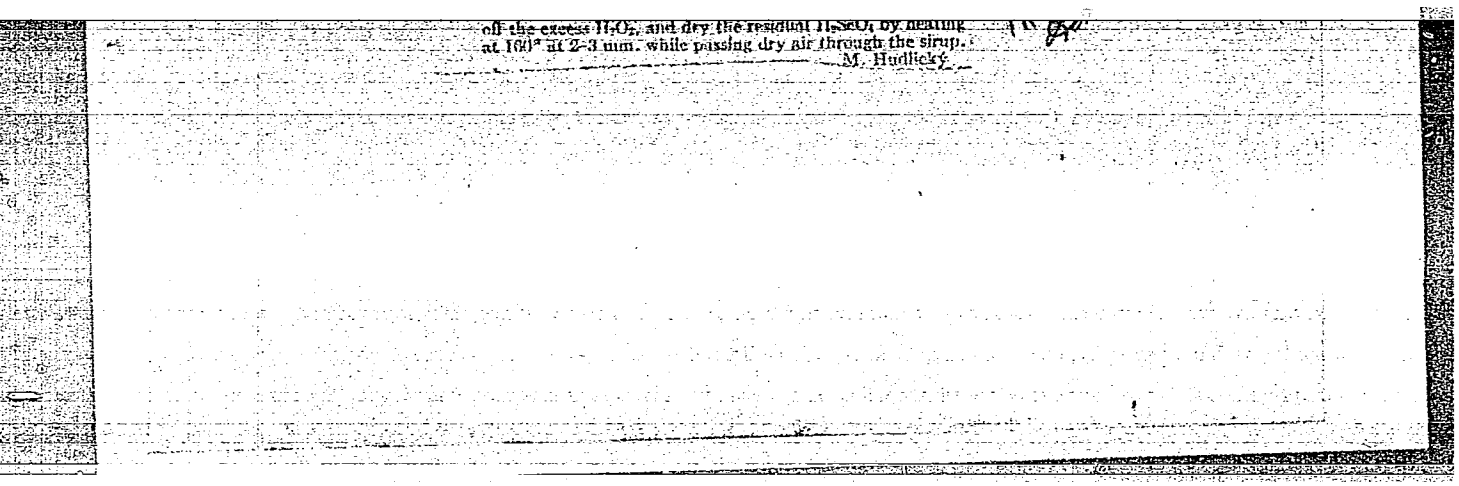
Analysis of the system of waves in a circular wave guide with impedance boundary conditions on the walls. Radiotekh. i elektron 7 no.7:1106-1114 '62. (MIRA 15:6)
(Wave guides)

CA MALINA, Z. V.

10

Quinoline derivatives. VIII. Synthesis of substantive quinophthalonic dyes from diamines of biphenyl series G. I. Arilashev and Z. V. Malina (V. M. Molotov State Univ., Rostov). *Zhur. Obshchei Khim.* (J. Gen. Chem.) 21, 1349–54(1951); cf. *Uchenye Zapiski Rostovskogo Gosudarst. Univ.* 5, (1951); *C.A.* 44, 7847a.—Satn. of 30 ml. paraldehyde in 36 ml. ice-cooled Me_2CO with dry HCl, letting stand 1 day, addn. of the mixt. to 12.3 g. benzidine and 30 ml. concd. HCl, refluxing 5 hrs., letting the mixt. stand overnight, dilg. with 50 ml. H_2O, refluxing briefly, filtering hot, and cooling gave 26% *2,2',4,4'-tetramethyl-6,6'-biquinoline*, m. 232° (from EtOH). If the HCl stream is maintained during the heating period, 31% of a purer crude product is obtained. Similarly, [3,4-MeO(H_2N)C_6H_3]$_2$ gave 18% *2,2',4,4'-tetramethyl-8,8'-dimethoxybiquinoline*, m. 195° (from EtOH), while tolidine gave by this method 4% *2,3',4,4',8,8'-hexamethyl-6,6'-biquinoline*, m. 225°; purification by means of *o*-$C_6H_4(CO)_2O$ (Russ. patent 47,207, *C.A.* 33, 3400[1]) permitted the isolation of 51% yield of the substance, m. 230° (after washing with EtOH). From these intermediates the prepn. of biquinophthalones were obtained in 75%, 69%, and 83% yields, resp., by the method of Porai-Koshits and Kulikov (*C.A.* 32, 1458[4]). All were brown powders, which did m. 360°, partly subliming at high temp. Their sulfonation proceeds in 95% yields and they are substantive dyes, in which the introduction of Me or MeO groups deepens the color shade; the benzidine deriv dyes deep yellow, tolidine orange-yellow, dianisidine orange.

G. M. Kosolapoff



off the excess H_2O_2, and dry the residual H_2SeO_4 by heating at 160° at 2–3 mm. while passing dry air through the sirup.

M. Hudlický

FORSTER, Vaclav; MALINAKOVA, Helena

Considerations on a method for the determination of phenols in urine by means of a dibromoquinone chloroimide. Pracovni lek. 13 no.2:82-8? Mr '61.

1. Interni oddeleni KUNZ v Karlovych Varech, primar MUDr. J. Havranek Ustredni biochemicke laboratore KUNZ v Karlovych Varech, prednosta RNDr. H. Malinakova.

(PHENOLS urine)

SHLAPOBERSKIY, V.Ya., professor; MALINAUSKAS, I.K.

Compound therapy for acute suppurative peritonitis. Khirurgiia 32 no.4:81-88 Ap '56. (MLRA 9:8)

1. Iz gospital'noy khirurgicheskoy kliniki (zav. prof. V.Ya. Shlapoberskiy) Vil'nyusskogo gosudarstvennogo universiteta i Pervoy sovetskoy bol'nitsy (glavnyy vrach I.T.Yeliseyev)
(PERITONITIS, therapy,
complex methods (Rus))

MALINCHENKO, I. K.

Sovkhoz "Trostianets." Moskva, Gos. izd-vo kul'turno-prosvetetel'noi lit-ry, 1954.
13 p. (55-40905)

S469.R92U4

MALINCHENKO, I. K.

5694. MALINCHENKO, I. K. Vysokiye urozhai Podsolnechnika. (Kolkhoz Im. Tel'manovskogo Rayona. Stalinskoy Obl. M,. Goskul'trosvetizdat, 1954.) 8s 22sm. (Vsesoyuz. s.-kh. Vystavka) 6,000 Ekz 10k-Avt. Ukazan Na 1-y s.-(55-1027) p. 633.854.78st. (47.715)

SO: Knizhnaya. Letopis, Vol. 1, 1955

N. MALINCHIN

"Fertilizer application to cotton plants according to the phase of development." Tr. from the Russian. p. 22. (ANALELE ROMANO-SOVIETICE. SERIA AGRICULTURA-ZOOTEHNIE., Vol. 6, seria a II-a, No. 10, Apr./June 1952, Bucurasti, Rumania.)

SO: Monthly List of East European Accessions, L. C., Vol. 2, No. 7, July 1953, Uncl.

VALINDA, Z.

Calculating rubber parts under torsion. (Supplement) P. III/49.
(STROJIRENSTVI, Vol. 6, No. 12, Dec 1956, Praha, Czechoslovakia)

SO: Monthly List of East European Accessions (EEAL) LC, Vol. 6, No. 12, Dec 1957. Uncl.

MALINDA, Z., inzh.

New diesel train of the Czechoslovak railroads. Zhel.dor.transp. 42 no.11:85-87 N '60. (MIRA 13:11)

1. Issledovatel'skiy institut transporta Chekhoslovatskoy Sovetskoy Respubliki.

(Czechoslovakia--Railroad motor cars)

MALINDA, Zdenek, inz.

Shock absorbers, a new construction elemet on cars of the Czechoslovak Railroads. Zel dop tech 12 no. 4:90-91 '64.

MALINDA, Zdenek, inz.

New information on the dynamic stress of steel used for locomotive underframes. Doprava 6 no.6:418-420 '64.

MALINEK, MIROSLAV

(29)

Use of complexons in chemical analysis. XLII. Separation of molybdenum and vanadium with 8-quinolinol. Miroslav Malinek (Výzkumný ústav kovů, Panenské Břežany, Czech.). *Chem. Listy* 48, 38–40(1954); cf. *C.A.* 48, 3840f.—Gravimetric detn. of Mo with 8-quinolinol (I) in the presence of V is based on the reduction of VO_3^- with Na_2SO_4 or with complexon and on the formation of the complex VO^{++} with complexon(II) resistant to I. A soln. contg. Mo, V, and other cations is acidified to pH 1–2 and boiled 10 min. with solid complexon(II). If considerable V is present, carry out the reduction to VO^{++} with a few crystals Na_2SO_3 in acidic soln. (pH < 1). Dil. the soln. to 100 ml. and neutralize with NH_4OH to pH 3–5, add 5 ml. of a buffer (50 g. NH_4OAc, 60 ml. AcOH, and 100 ml. H_2O) and ppt. the hot soln. with 3% I in dil. AcOH partly neutralized with NH_4OH. Filter hot, wash with hot H_2O, and dry at 150°.

M. Hudlický

MALINEK, M.

Polarographic determination of bismuth in copper. p. 552.
7th Mining and Metallurgy Day celebrated in Freiberg, December 16-18, 1955. p. 553.
HUTNICKE LISTY, Brno, Vol. 10, no. 9, Sept. 1955.

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

MALINEK, M.

Potentiometric determination of higher manganese content. p.612.
HUTNICKE LISTY, Brno, Vol. 10, no. 10, Oct. 1955.

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

MALINEK, M.

CZECH

Use of complexons in chemical analysis. XLVI. Gravimetric and volumetric determination of arsenate. M. Malínek and B. Řehák (Czech. Akad. věd, Prague). *Chem. Listy* 49, 705-7(1955); cf. *C.A.* 49, 8730a.—To det. As, add complexon to As^{V} soln., and a slight excess NH_4Cl, dil. to 100 ml., add Mg^{++} soln. dropwise until turbidity occurs, add 20 additional ml. Mg^{++} soln., 20 ml. concd. NH_4OH, filter off the ppt., wash it with *N* NH_4OH contg. 2–3% NH_4NO_3, dry at 100°, and weigh as $Mg_2As_2O_7$ after igniting the ppt. 20 min. at 900°. To det. As volumetrically, filter off the ppt. dissolve it in 10 ml. concd. HCl, neutralize, acidify slightly with 3*N* HCl, cool, and add excess (20 ml.) 0.1*M* complexon(III). Adjust the vol. to 100 ml., det. the pH with a Schwarzenbach buffer, and retitrate the excess complexon with 0.1*M* Mg with Eriochrome Black T as indicator. One ml. 0.1*M* complexon corresponds to 7.491 mg. As. In alternate method, reduce the dissolved ppt. with 2 g. $N_2H_4 \cdot H_2SO_4$ and 0.5 g. KBr and titrate with complexon. M. Hudlický

CZECHOSLOVAKIA/Analytical Chemistry - Analysis of Inorganic Substances G-2

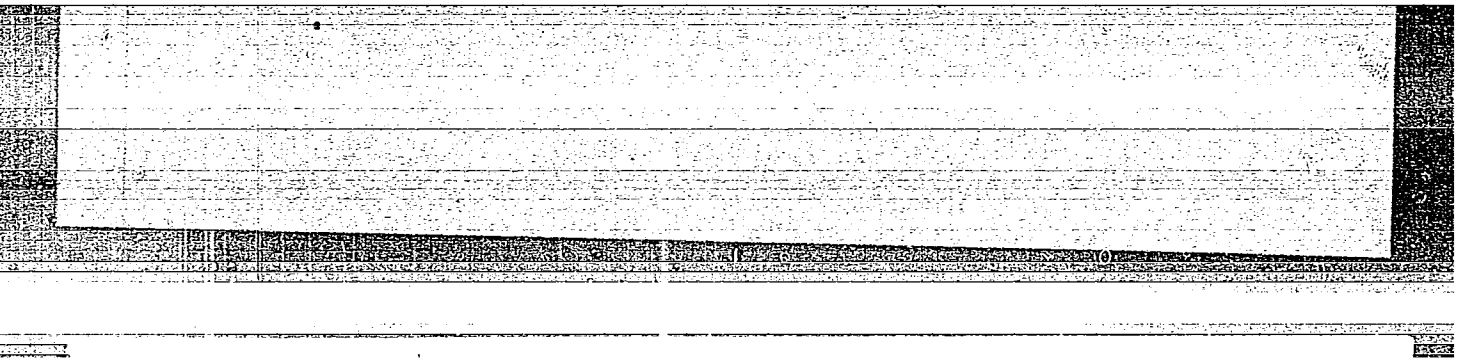
Abs Jour : Referat Zhur - Khimiya, No 2, 1957, 4721

Author : Malinek, M.
Inst :
Title : Use of Complexones in Chemical Analysis. XLVII. Gravimetric Determination of Silver Using Mercaptophenylthiothiodiazolone.

Orig Pub : Sb. chekhosl. khim. rabot, 1956, 21, No 3, 780-782

Abstract : See RZhKhim, 1956, 54744.

Card 1/1



APPROVED FOR RELEASE: 06/20/2000 CIA-RDP86-00513R001031810012-4"

MALINEK, M.

CZECHOSLOVAKIA/Analytical Chemistry - General Questions G-1

Abs Jour : Referat Zhur - Khimiya, No 2, 1957, 4662

Author : XLVIII. Schneider Petr. XLIX. Malinek, M., Rahak, B.
Title : Utilization of Complexons in Chemical Analysis. XLVIII. Gravimetric Determination of Thorium. XLIX. Gravimetric Determination of Silver and Mercury with Mercaptobenzothiazole in the Presence of Complexon III.

Orig Pub : Chem. listy, 1956, 50, No 1, 81-83; 157-159

Abstract : XLVIII. In ammoniacal media, in the presence of Complexon III, action of H_2O_2 on salts of Fe(3+), Al and Th, brings about a quantitative precipitation of only Th (after 30-60 minutes). Precipitation of Fe and Al does not take place even after several days. On precipitation of Th in the presence of Fe, Al and other elements, the readily filterable precipitate is washed with water, calcined and weighed as ThO_2. In the presence of 10-fold excess of Al, reprecipitation is utilized. Th can

Card 1/4 - 9 -

Abs Jour : Referat Zhur - Khimiya, No 2, 1957, 4662

also be determined by the complexometric method, after dissolution of the precipitate in HCl, using pyrocatechol violet as an indicator (RzhKhim, 1955, 5763). In the filtrate Fe is determined gravimetrically, after removal of H_2O_2 by boiling, and precipitation with alkali in the cold. To determine Al, there is added to the filtrate, after removal of H_2O_2 by boiling, an equivalent amount of 0.1 M $Ca(NO_3)_2$, the flocculent precipitate ($AgC_6H_4NCS_2$ or $Hg(C_6H_4NCS_2)_2$) is filtered off through a G3 glass filter, washed with $\sim$ 0.1 N solution of NH_4OH and dried at 110°. On determination of Hg the solution must not be strongly alkaline and the temperature of the solution, during precipitation must be $\leq$ 90°. The precipitate if filtered off immediately and dried $\leq$ 0.5 hour. Determination of Ag and Hg, when both are present, by masking of one of the cathions is not

Abs Jour : Referat Zhur - Khimiya, No 2, 1957, 4662

possible. The method is suitable for determination of Ag in the presence of excess Pb or of cathions that interfere on a volumetric determination of Ag with SCN^-.

XLIX. On use of mercaptobenzothiazole (I) as a reagent in gravimetric analysis (Spacu G., Kuras M., Z. analyt. Chem., 1935, 102, 24; 1936, 104, 88; Kuras M., Sb. chekhosl. khim. rabot, 1935, 11, 363) its selectivity can be considerably enhanced by means of complexon (II) (tetrasodium salt of ethylenediamine tetracetic acid). In ammoniacal solution of II, on an addition of I, only Ag^+ and Hg^{2+} are precipitated, while most of the other cathions, with the exception of Au and metals of the Pt-group, are masked by II. In the presence of 4-valent metals and Be they are masked with tartaric acid. To a solution containing 10-100 mg Ag (Hg) is added an excess of II and 1-3 ml of 50% solution of CH_3COONH_4. After

Abs Jour : Referat Zhur - Khimiya, No 2, 1957, 4662

alkalinization with NH_4OH (to phenolphthalein) a slight excess of I is added to the solution maintained at a gentle boil. On stirring at moderate temperature a yellow precipitate is formed and Al is separated quantitatively. Determination of Th is interfered with by Ti and rare earth elements. The method is suitable for the analysis of thorium containing W used in radio engineering.

Communication XLVII, see RzhKhim, 1956, 54744.

MALINEK, M.

2643. The potentiometric and amperometric determination of silver with mercaptophenylthiothiadiazolone and mercaptobenzothiazole. M. Malinek and B. Řehák (Metallurgical Lab., Czechoslovak Acad. Sci., Prague). *Z. anal. Chem.*, 1956, 150 (6), 329–333.—Silver solutions can be titrated potentiometrically with mercaptophenylthiothiadiazolone (I) or mercaptobenzothiazole (II) in neutral or ammoniacal soln. in the presence of EDTA (to prevent the pptn. of ions other than Ag^+), with a silver indicator electrode and a saturated calomel reference electrode. Amperometric determination of Ag^+ with I or II can be carried out in neutral soln. in the presence of EDTA, with a rotating platinum electrode and a Hg - HgI_2 half-cell; Hg, Au and some of the platinum metals interfere.

A. R. ROGERS

MALINEK, M. : KLIR, L.

"Use of complexons in chemical analysis. LI. Colorimetric determination of cerium in magnesium alloys. In German."

p. 319 (COLLECTION OF CZECHOSLOVAK CHEMICAL COMMUNICATIONS. SBORNIK CHECKSHOSOLVATSKIKH KHMICHESKIKH RABOT. -- Praha, Czechoslovaka.) Vol. 22, No. 1, Feb. 1957

SO: Monthly Index of East European Accession (EEAI) LC, Vol. 7, No. 5, May 1958

~~[illegible]~~ MALINEK, M.

The direct-current arc in spectral analysis. A method for complete evaporation of the sample. Miroslav Malínek (Hutnický ústav Československ. akad. věd, Prague). *Chem. Listy* 53, 146-53(1959).—A review with 29 references. L. I. Urbánek

Distr: 4E3d

89745

Z/035/60/000/011/001/001
D007/D102

5.5310

AUTHORS: Soudný, Mojmír, Engineer, and
Malínek, Miroslav, Candidate of Chemical Sciences

TITLE: Spectrographic determination of indium in flue dust

PERIODICAL: Rudy, no. 11, 1960, 380 - 382

TEXT: The article describes spectrographic tests with the constant-temperature-arc method to determine indium in flue dust. The tests were performed with the aim of finding a rapid method by which metallurgical flue dust can be analyzed for its suitability as a raw material source of rare metals. There are several methods of spectrographic determination of In, but most of them are explicit methods developed for analysis of specific materials, such as sphalerite, galena and mica, as described by A. I. Busev (Ref. 1: Analiticheskaya khimia india [Analytical Chemistry of Indium] Izdatelstvo akademii nauk SSSR, Moscow, 1958). However, since the composition of flue dust varies, a method had to be found which would be independent of both qualitative and quantitative changes of the main compo-

Card ~~1/10~~

nents of samples. Several attempts were made to eliminate the influence of "third components" on the spectralline intensity of indium. A so-called constant-temperature-arc method, developed by N. W. H. Addink, J. A. M. Dikhoff, C. Schipper, A. Witmer and T. Groot (Ref. 15: Spektrochim. Acta 7, 45, 1956; Ref. 16: Applied Spectroscopy 10, 128, 1956), where the sample is placed in the crater of a heavy carbon electrode and then completely burned by the arc, was successfully applied for the determination of germanium by M. Malínek (Ref. 17: Applied Spectroscopy, 13, 1, 1959). The same method was now tested for its suitability to analyse indium in flue dust. The tests were performed with a "KSA 1" high-dispersion spectrograph with quartz lenses, with d/c supplied from a "U 300/20 R 30"electronically-controlled rectifier, a product of the n.p. Křižík Děčín (Křižík National Enterprise, Děčín). "Foma Spektro Modrá 220" and "Agfa Blau Hart" photographic plates and Kodak "D19" and "F5" chemicals were used for photographic processing. Electrodes were made of graphite rods, supplied by the n.p. Elektrokarbon Bratislava (Elektrokarbon National Enterprise, Bratislava) which had to be machined to the

Spectrographic determination of indium...

shape shown in Figure 1 to achieve quiet burning of the arc. Since the used graphite was originally not meant for this purpose, spectrographic purity could not be achieved, despite chemical and physical purification. The emulsion was calibrated not only with respect to the contrast factor (gamma), but also in regard to the dependence between the actual intensity of the source and the optical density for a certain wave length region. Complete burning of 5 mg Co_2O_3 was used as light-intensity standard, with the intensity scale given by a 7-stage filter. To cover the entire range of optical densities, from the lowest values of the background to the highest In concentrations, two lines of different intensity, namely Co I 3039.57 and Co I 3042.48 were chosen for construing the calibration curves (Fig. 2). From the last 4 In lines, the line In I 3039.356, designated U-4 in Harrison tables (Ref. 20: G. R. Harrison: M. I. T. Wavelength Tables. John Wiley & Sons, New York, 1939), was chosen (Fig. 3), since the other three are not suitable for the constant-temperature-arc method. For the dispersion and resolving power of the used instrument, a disturbing influence could be expected only from Fe at a concentration of 25% and more, and from Cd at a concen-

89745
Z/035/60/000/011/001/001
D007/D102

Spectrographic determination of indium...

tration of 10% and more. However, neither element occurs in such high concentration in the flue dust. The tests were performed under the following conditions: Adjusted wavelength, 3,000 Å; slit width, 0.025 mm; voltage (source not loaded), 300 V; current (with electrodes in contact), 15.5 A; loading resistance in series with the arc, 25 ohms; electrode gap, 9 mm; weight of sample in the anode, 5 ± 0.1 mg; arc ignition by electrode contact; exposure time till complete burning of the sample (5 - 6 minutes). Densitometric data was obtained at 30 X magnification and a slit width of 0.45 mm. The current was not regulated during exposure, but the rated electrode gap was maintained constant. The time of complete sample burning was determined from spectrograms developed in time. Dry, finely-ground samples were placed in the anode crater and covered by 5 mg SiO_2 and some graphite. Four samples of equal composition were exposed on one plate, together with the reference Co spectrum. A calibration curve was drawn for each plate. The percentage of In in the sample was read from the curve after calculating the actual intensity by subtracting the background intensity from the total intensity. The assumption that the influence of major components of the sample can

Card ~~4/10~~

Spectrographic determination of indium...

be ignored was verified by total burning of various synthetic 5 mg standards with the same content of In, but with varying matrices containing PbS, ZnS, SnO_2, As_2O_3, Sb_2S_3, CuS, Al_2O_3 and SiO_2. The intensity of the In 3039 line fluctuated only within limits permissible by the method. For construing the analytical curve, synthetic standards were prepared by mixing the basic In standard, containing 0.1% In, with a matrix of approximately the same composition as found in flue dust. The corrected In 3039 line intensities are plotted versus In % in logarithmic scale in Figure 4. From 0.001% (threshold sensitivity) to 0.03% In the curve is a straight line; above 0.03% the influence of self-reversal begins asserting itself. In conclusion, the authors state that the tests proved the suitability of the constant-temperature-arc method for spectrographic determination of In in flue dust. The reproducibility of the method was determined by frequently repeated tests. The mean square error was found to be ± 13%. The good agreement of results obtained by the described method with those obtained by chemical analysis is shown in Table 1. The time required for analysis is less than 1 hour. The accuracy is considered adequate in view of the more complicated and tedious chemical methods

Card 5/10

89745
Z/035/60/000/011/001/001
D007/D102

Spectrographic determination of indium...

of In determination. There are 4 figures, 1 table and 21 references: 5 Soviet-bloc and 16 non-Soviet-bloc. The four most recent references to English-language publications read as follows: H. J. Eichhoff, K. Picard: Spectrochim. Acta 7, 346 (1953); N. W. H. Addink, J. A. M. Dikhoff, C. Schipper, A. Witmer, T. Groot: Applied Spectroscopy 10, 128 (1956); N. W. H. Addink, J. A. M. Dikhoff, C. Schipper, A. Witmer, T. Groot: Spektrochim. Acta 7, 45 (1946); M. Malínek: Applied Spectroscopy, 13, 1 (1959).

Card 6/10

MALINEK, Miroslav

"Methods of Evaluation of Results in Quantitative Spectral Analysis," Prague, Chemicke Listy, No. 11, Nov 60, p. 1144.

Affiliation: Metallurgic Institute, CSAV, Prague.

MALINEK, Miroslav, kandidat chemickych ved; SOUDNY, Mojmir, inz.

Spectrographic analysis of sponge iron. Part 1: Determination of minority elements. Hut listy 16 no.5:358-361 My '61.

1. Hutnicky ustav, Ceskoslovenska akademie ved, Praha.

SOUDNY, Mojmir, inz.; MALINEK, Miroslav, kandidat chemickych ved

Spectrographic analysis of sponge iron. Part 2: Determination of copper and nickel. Hut listy 16 no.6:438-439 Je '61.

1. Hutnicky ustav, Ceskslovenska akademie ved, Praha.

L 32041-66 EEC(k)-2 IJP(c)

ACC NR: AP6020640 SOURCE CODE: CZ/0008/65/000/003/0897/0913

AUTHOR: Malinek, Miroslav

ORG: Geological Institute, CSAV, Prague (Geologicky ustav CSAV)

TITLE: Direct recording in emission spectral analysis

SOURCE: Chemicke listy, no. 8, 1965, 897-913

TOPIC TAGS: emission spectrum, spectrum analysis, photomultiplier, spectrometer/ FEU-18 photomultiplier, DFS-10 spectrometer

ABSTRACT: Development of recording spectrophotometers in recent years is reviewed. The advantages of using photographic plates for registration of weak impulses are discussed. Photoelectric multipliers, optical and mechanical construction details, and the wiring diagrams of spectrophotometric instruments are discussed. Russian photomultiplier FEU-18 is compared to RCA produced apparatus. Russian spectrometer DFS-10 allowing the use of batteries instead of photomultipliers is discussed. The diffraction grid of the DFS-10 is discussed. The author thanks Engineer Ladislav Hladek, Candidate of Sciences, Institute of Physical Chemistry CSAV, for proofreading the manuscript and Docent, Doctor, Engineer Bohumil Polej, Candidate of Sciences, VSChT for comments in directing the operation. Orig. art. has: 17 figures and 1 table.

[JPRS]

SUB CODE: 20, 09 / SUBM DATE: none / OTH REF: 034 / SOV REF: 005

Card 1/1 90

KOTEL'NIKOV, N.V.; KORENEV, N A.; MALINEN, P.A.; YERMOLINA, T.D.

Effect of annealing on the magnetic properties and structure of nickel obtained by a chemical method. Izv. SO AN SSSR no.10:142-146 '63. (MIRA 17:11)

1. Permskiy gosudarstvennyy universitet.

AYZENTSON, G.Ye.; MALINEN, P.A.

Decomposition of residual austenite in steel under the effect of ultrasonic waves. Metalloved. i term. obr. met. no.1:50-51 Ja '64. (MIRA 17:3)

1. Permskiy gosudarstvennyy universitet.

41574
S/020/62/146/004/006/015
B104/B102

24 2250

AUTHORS: Kotel'nikov, N. V., Korenev, N. A., Malinen, P. A., Yermolina, T. D.

TITLE: Magnetic properties and structure of nickel films produced by chemical methods

PERIODICAL: Akademiya nauk SSSR. Doklady, v.146, no. 4, 1962, 797 - 798

TEXT: The specimens (Table 1) were produced and studied by methods fully described in a previous paper (N. V. Kotel'nikov et al., DAN, 143, no. 4, 908 (1962)). A nickel wire was fastened to a copper backing and nickel was precipitated for 20 min at a bath temperature of 87°C, the bath being renewed every 5 minutes. The specimens 2, 3, 4, and 5 showed ferromagnetic properties (hysteresis loops) when the magnetic field had an amplitude of 84 oe and a frequency of 50 cps. With stronger fields, specimen 1 too showed ferromagnetic properties. Freshly produced specimens were amorphous or crystalline. Amorphous specimens showed no ferromagnetic properties. X-ray pictures of specimens 1 and 4 show blurred lines of β-Ni. A fine dispersion of the precipitates is inferred from the blurred quality of the lines depending on the reflection angle. The x-ray picture of specimen 6

Card 1/2

Magnetic properties and structure ...

is typical of an "amorphous" body with diffuse lines corresponding to an interplanar spacing of d = 2.03 Å and somewhat shifted as compared with the (111) lines of the cubic nickel lattice. There are 3 figures and 1 table.

ASSOCIATION: Permskiy gosudarstvennyy universitet im.A. M. Gor'kogo (Perm' State University imeni A. M. Gor'kiy)

PRESENTED: May 10, 1962, by A. V. Shubnikov, Academician

SUBMITTED: May 9, 1962

Table 1.

Table 1

(1)	(2a)	(2b)	(2c)	(3)	(4)	(5)
1	30	10	15	3,6	—	—
2	30	10	12	5,1	35,2	7,95
3	30	10	10	5,2	66,3	12,5
4	30	10	8	6,6	71,8	3,96
5	30	10	6,5	7,4	—	—
6	30	10	5	5,8	—	—

Card 2/2

AYZENTSON, Ye.G.; MALINEN, P.A.; SHIVAK, [illegible].V.; UTROBINA, I.K.

Effect of ultrasonic waves on the formation of carbide grains during the quenching of hardened carbon steel. Fiz. met. i metalloved. 17 no.4:624-627 Ap '64. (MIRA 17:8)

1. Yestestvenno-nauchnyy institut pri Permskom gosudarstvennom universitete imeni A.M. Gor'kogo.

S/0126/64/017/005/0777/0779

ACCESSION NR: AP4039606

AUTHORS: Ayzentson, Ye. G.; Malin..., P. A.; Uvarov, A. I.

TITLE: On the decay of residual austenitic steel KhVG subjected to ultrasonic vibrations

SOURCE: Fizika metallov i metallovedeniye, v. 17, no. 5, 1964, 777-779

TOPIC TAGS: ultrasonic oscillation, austenitic steel, austenite, martensite lattice, transition rate, steel KhVG

ABSTRACT: The effect of ultrasonic oscillations on the residual austenitic steel decay has been studied under various heat treatments and oscillation amplitudes. Cylindrical specimens (9 mm in diameter) made of KhVG steel were used. They were heated to 1000C for 15 minutes, quenched in oil, and subjected to 20.5-Kcycle ultrasonic oscillations (at 170C and 200C temperatures in glycerin, and at 250-270C in a saltpeter bath). Other specimens, not subjected to oscillations, were used for comparison. All results were plotted as $\Delta\gamma$ versus oscillation time and amplitude ($\Delta\gamma$ is the difference in austenite content between the control specimen and those subjected to ultrasonic oscillations). At 170C the steel contained a significant amount of residual austenite. This amount reached a maximum after 30 minutes of

Card 1/2

ACCESSION NR: AP4039606

annealing and decreased continuously thereafter. At 270C the maximum $\Delta\gamma$ was lower and occured after 20 minutes of annealing. $\Delta\gamma$ increased in all cases as the oscillation amplitude increased from 0 to 8 microns. It was shown that ultrasonic oscillations promoted migration of atoms from austenitic lattices into martensitic lattices, thus increasing the transition rate. Orig. art. has: 3 figures.

ASSOCIATION: Yestestvenno-nauchny*y institut pri Permskom gosuniversitete im. A. M. Gor'kogo (Institute of Natural Sciences, Perm State University)

SUBMITTED: 03Jun63 DATE ACQ: 19Jun64 ENCL: 00

SUB CODE: MM NO REF SOV: 005 OTHER: 000

Card 2/2

L 27261-65 EWT(m)/EWA(d)/T/EWP(t)/EWP(b)/EWP(l)/EWA(h) Peb MJW/JD

ACCESSION NR: AP4034064 S/0126/64/017/004/0624/0627

AUTHORS: Ayzentson, Ye. G.; Malinen, P. A.; Spivak, L. V.; Utrobina, I. K.

TITLE: Effect of ultrasonic oscillations on carbide grain formation during annealing of quenched carbon steel

SOURCE: Fizika metallov i metallovedeniye, v. 17, no. 4, 1964, 624-627

TOPIC TAGS: annealing, quenching, ultrasonic vibration, carbon steel/ U12 steel

ABSTRACT: The effect of ultrasonic oscillations on carbide formation was investigated in U12 steels during annealing at 680C. The 10-mm diameter steel specimens were quenched from 960C temperature in oil and screwed on the waveguide of a magnetostrictive vibrator. At 20.5-kc frequency standing waves of 10μ amplitude were created in the specimen. After the test, longitudinal sections were sliced off from the specimen and the microstructure was analyzed at 2000 magnification. After 1 hour of annealing and ultrasonic oscillations, the microstructures indicated, on the average, larger carbide particle sizes with greater distances between each carbide particle than in the control specimens. A graphical plot of the number of carbide particles versus annealing time shows that the effect of

Card 1/2

L 27261-65

ACCESSION NR: AP4034064

ultrasonic oscillations first increases, reaches a maximum, and subsequently decreases. For a given test duration time, the particle distribution falls sharply from the end of the specimen until it reaches a constant value at a distance of 40 mm. These results show that ultrasonic oscillations promote coagulation of carbides in U12 steels. Orig. art. has: 4 figures.

ASSOCIATION: Yestestvenno-nauchnyy institut pri Permskom gosuniversitete im. A. M. Gor'kogo (Natural Science Institute, Perm State University)

SUBMITTED: 16Apr63 ENCL: 00 SUB CODE: MM

NO REF SOV: 007 OTHER: 001

APPROVED FOR RELEASE: 06/20/2000 CIA-RDP86-00513R001031810012-4"

ACC NR: AP7000642 SOURCE CODE: UR/0414/66/000/003/0059/0066

AUTHOR: Lukashenya, G. V. (Moscow); Malinenko, G. M. (Moscow); Bakhman, N. N. (Moscow); Belyayev, A. F. (Moscow)

ORG: none

TITLE: Temperature coefficient of burning velocity in condensed mixtures at various component ratios

SOURCE: Fizika goreniya i vzryva, no. 3, 1966, 59-66

TOPIC TAGS: ammonium perchlorate, rocket propellant, solid propellant, composite propellant, propellant, solid propellant combustion, temperature coefficient, burning velocity, perchlorate, ammonium compound, combustion temperature

ABSTRACT: A study has been made of the initial temperature (T_0) dependence of the burning velocity (u) for model mixtures of ammonium perchlorate (AP) with polystyrene (PS), poly(methyl methacrylate) (PMM), polyoxymethylene, or bitumen. Powder samples were mixed and compacted in brass shells to a density close to the maximum. Jellied mixtures were also prepared for AP+PS and AP+PMM mixtures. The experiments were conducted in a constant-pressure bomb under nitrogen as shown in Fig. 1. The charge was placed in the pocket of the hot-air heater. A thermocouple was glued to the bottom end of the charge. The charge was ignited by means of an incandescent wire from the bottom so that

UDC: 536.46

Card 1/3

combustion proceeded upward. Combustion time was measured with a piezoelectric pickup. To record accurately combustion completion, a small amount of fast-burning potassium picrate was placed at the upper end of

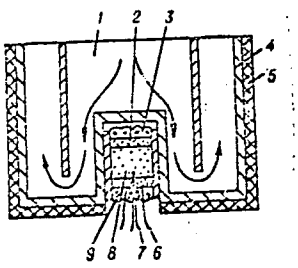


Fig. 1. Charge heating

1 - Hot-air stream; 2 - potassium picrate; 3 - thermal insulation; 4 - body of heater (stainless steel); 5 - thermal insulation (asbestos); 6 - spiral for ignition; 7 - thermocouple; 8 - charge; 9 - igniting composition.

the charge. The data given in tabular and graphic form involve T_0 values from -65 to 200C, combustion temperatures from 1500 to 2900K, and pressures from 1 to 100 atm. It was found that in all cases u is monotonic increasing with T_0. The dependence $u(T_0)$ was conveniently characterized by the temperature coefficient $\beta = d\ln u/dT_0$. β was highly dependent on the fuel/oxidizer ratio (α). The curve $\beta(\alpha)$ had a minimum whose position corresponded to that of the burning velocity peak. For mixture compositions not too far from stoichiometric, β increased with

ACC NR: AP7000642

oxidizer particle size. The experimental results were in good agreement with the idea that β is determined by the temperature (T_b) in the combustion zone region which determines the burning velocity; if T_b is large, β is small and vice versa. Orig. art. has: 5 figures and 7 tables. [W. A. 68] [SM]

SUB CODE: 21/ SUBM DATE: 08Apr66/ ORIG REF: 005/ OTH REF: 004

Card 3/3

ACC NR: AP6029095 SOURCE CODE: UR/0118/66/000/006/0007/0009

AUTHOR: Pirozhnikov, V. Ye. (Engineer); Kolchanov, V. A. (Engineer); Malinenko, M. A. (Engineer)

ORG: none

TITLE: Program control of electroslag metal remelting process

SOURCE: Mekhanizatsiya i avtomatizatsiya proizvodstva, no. 6, 1966, 7-9

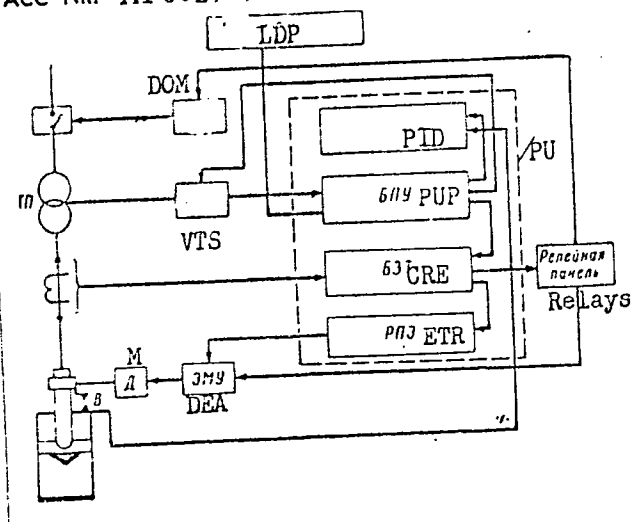
TOPIC TAGS: electroslag melting, program control, industrial automation

ABSTRACT: Developed in the Central Laboratory of Automatics (TsLA) jointly with some workers of "Elektrostal'" plant im. I. F. Tevosyan, the new program-control equipment includes (see figure): a program unit (PU) which comprises a process-interval duration unit (PID), a program unit proper (PUP), a current reference input element (CRE), and an electrode-travel regulator (ETR); a dynamoelectric amplifier (DEA); electrode-moving motor (M); a voltage-tap switch (VTS); a h-v disconnect-switch operating mechanism (DOM); and a luminous display panel (LDP). Functioning of the program control is explained and a simplified electrical circuit is presented.

UDC: 66.065.5:62-503.55

Card 1/2

ACC NR: AP6029095



The above system operated for one year on three remelting installations increased productivity by 6—8% and reduced power consumption by 80 kwh/ton. Orig. art. has: 2 figures.

SUB CODE: 13, 09 / SUBM DATE: none

Card 2/2

ACC NR: AP6029035 SOURCE CODE: UR/0413/66/000/014/0051/0052

INVENTORS: Kolchanov, V. A.; Yefroymovich, Yu. Ye.; Vinogradov, V. M.; Kotikov, A. N.; Pirozhnikov, V. Ye.; Malinenko, M. A.; Gunin, I. V.

ORG: none

TITLE: A device for controlling the electric system of an electric slag remelting installation. Class 21, No. 183847 [announced by Central Laboratory of Automation (Tsentral'naya laboratoriya avtomatiki)]

SOURCE: Izobret prom obraz tov zn, no. 14, 1966, 51-52

TOPIC TAGS: slag, smelting furnace, metallurgic furnace, electric equipment, automatic control system

ABSTRACT: This Author Certificate presents a device for controlling the electric system of an electric slag remelting installation based on the Author Certificate No. 139032. The design increases the reliability of the device because of the noncontact readout of the specification. The program mechanism includes a removable program matrix and a secondary matrix made from semiconductor diodes (see Fig. 1). These matrices are electrically connected through a comparison relay. The contacts of this relay are connected with the coil of the step scanner of the program matrix. The program matrix controls (through the relay system) the multiwinding current

UDC: 621.365.2.078

Card 1/2

ACC NR: AP6029035

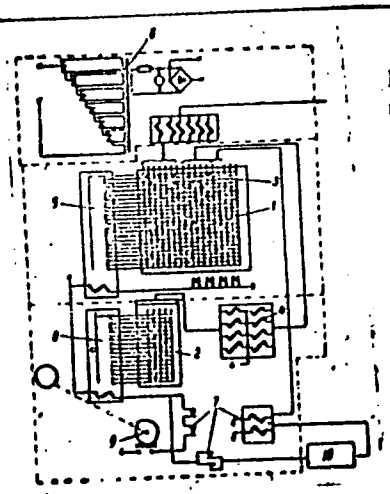


Fig. 1. 1 - removable program matrix; 2 - secondary matrix; 3 - semiconductor diodes; 4 - comparison relay; 5 - step scanner of the program matrix; 6 - multiwinding transformer; 7 - switch; 8 - step scanner of the secondary matrix; 9 - mechanism of the time readout; 10 - switch of the step voltage

transformer and a switch. The switch connects the coil of the step scanner of the secondary matrix either with the mechanism of the time readout or with the switch of the step voltage of the power transformer. Orig. art. has: 1 figure.

SUB CODE: 09, 13/ SUBM DATE: 25Feb65

Card 2/2

MALINEVSKIY, A. P.

"The investigation of phenomena arising on the relative motion of ions." (p. 596)

SO: ZHURNAL EKSPERIMENTAL'NOI I TEORETICHESKOI FIZIKI 1953, Vol. 25, No. 5 (11)

MALINGER, Bogdan, Major dr.

Osteosynthesis of the mandible. Voj. san. pregl., Beogr. 13 no.3-4:212-216 Mar-Apr 56.

1. Klinika za stomatologiju i maksilo-facijalnu kirurgiju Medicinskog fakulteta u Zagrebu.
(MANDIBLE, surg.
osteosynthesis (Ser))

MALINGER, Bogdan, dr.

Complicated injuries of the middle 3d of the face. Chir. maxillofac. (Zagreb) 5 no.1:49-62 '65.

E-2

COUNTRY : Czechoslovakia
CATEGORY : Analytical Chemistry.

ABS. JOUR. : RZKhim., No. 7, 1959, No. 23077

AUTHOR : Malirgerova, A.
INST. : Higher School of Agriculture and Forestry*
TITLE : Polarographic Determination of Nitrates and Nitrites.

ORIG. PUB. : Sb. Vys. sk. [illegible], 1957, A, No 3, [illegible]

ABSTRACT : For the determination of NO_3^- and NO_2^- in the presence of each other, there is proposed a method which comprises decomposition of NO_2^- with $CO(NH_2)_2$ in acid medium (according to the reaction: $2HNO_2 + CO(NH_2)_2 \rightarrow CO_2 + 3H_2O + 2N_2$) and subsequent polarography of NO_3^- with a background of 0.2 M KCl + 0.02 N HCl + $4 \cdot 10^{-4}$ N $UO_2(CH_3COO)_2$ (Keilin B., Otvos I.W., J. Am. Chem. Soc., 1946, 68, 2665). It was found that the most clearly defined polarographic waves of NO_3^- are obtained on decomposition of NO_2^- in a medium of HCl. To determine the sum of $NO_3^- + NO_2^-$, there are placed into the polarography cell 5 ml of the background solution, 4 ml water, and 1 ml of the solution being

CARD: 1/3

* at Brno

E-2

COUNTRY : Czechoslovakia
CATEGORY : Analytical Chemistry

ABS. JOUR. : RZKhim., No. 7, 1959, No. 23077

AUTHOR :
INST. :
TITLE :

ORIG. PUB. :

ABSTRACT : analyzed, N_2 is introduced for 5 minutes, and polarography is carried out from − 0.7 v (saturated calomel electrode). For a separate determination of NO_3^- in admixture with NO_2^-, to 10 ml of analyzed solution are added 0.6 g $CO(NH_2)_2$ and a small amount of water, after $CO(NH_2)_2$ is dissolved, 4 ml 1 N HCl are added, the mixture is diluted with water to 50 ml, and after completion of the reaction of decomposition of NO_2^- (which is checked by means of the reaction of diazotation, and lasts less than 1 hour) 5 ml of the thus produced solution are placed into the cell containing 5 ml of background solution; N_2 is introduced and polarography is carried out from − 0.7 v. Content of

CARD: 2/3

3/3

MALINGIEWICZ, C.

Legal aspects of sodomy. Med.wet. 6 no.1:27 Ja '50. (CLML 19:2)

MALINIAK, B.

Phenolic molding powder. p. 354. (PRZEMYSL CHEMICZNY, Vol. 10, No. 7, July 1954, Warszawa, Poland)

SO: Monthly List of East European Accessions, (EEAL), LC, Vol. 3, No. 12, Dec. 1954, Uncl.

MALINIAK, J.

Contribution to the therapeutic problems of synovial form of tuberculous coxitis in children. Acta chir. orthop. traum. Cech. 32 no.2:133-137 Ap'65

1. Chirurgicke oddelenie Detskej liecebne tuberkulozy v Dolnom Smokovci (veduci: MUDr. J. Dubon).

DUHON, J., Dr.; ZBINOVSKY, D., Dr.; MALINIAK, J., Dr.; KOSTELKA, St. MUC

Successes and failures of therapy of osteoarticular tuberculosis with PAS and streptomycin in children. Acta chir. orthop. traum. cech. 21 no.5-6:150-155 Dec 54.

1. Z chir. odd. Detskej licebne tbc. v Dolnom Smokovci, prednosta Dr. Duhon

(TUBERCULOSIS, OSTEOARTICULAR, in infant and child
ther. PAS & streptomycin, results)
(PARA-AMINOSALICYLIC ACID, ther. use
tuberc., osteoarticular in inf. & child.)
(STREPTOMYCIN, ther. use
tuberc. osteoarticular in inf. & child.)

MALINICHEV, D. I.

"Experience of Operating 110 kv Oil-Filled Cable in MKS of Mosenergo," "Operation of Cable Networks" (Eksploatatsiya kabeley i kabel'nykh setey), Gosenergoizdat, 1949, 384 pp.

KAS'YAN, A. G.; MALINICHEV, D. I.

Electric Lines

Presses for mounting, connecting, and tightening terminals on electric transmission lines, and connecting bushings on 110 KV cables, Rab. energ., 2, no. 1, 1952.

9. Monthly List of Russian Accessions, Library of Congress, May 1952, Uncl.

MALINICHEV, G.

Subway of the Hungarian capital. Tekh.molod. 21 no.8:31 Ag '53. (MLRA 6:7)

(Budapest--Subways) (Subways--Budapest)

MALINICHEV, G.

Hydraulic construction in new China. Tekh.mol. 21 no.12:30-31 D '53. (MLRA 6:11)

(China--Flood dams and reservoirs) (Flood dams and reservoirs--China)

MALINICHEV, G.

The friendship building. Tekh.molod. 22 no.1:30 Ja '54. (MLRA 7:1)
(Warsaw--Buildings) (Poland--Relations (General) with Russia) (Russia--Relations (General) with Poland)

MALINICHEV, G.

Korea is being rebuilt. Tekh.mol.22 no.4:29 Ap '54. (MLRA 7:4)
(Korea, North—Reconstruction)

MALINICHEV, G.D.

Science in the German Democratic Republic. Nauka i zhizn' 22 no.1:40-42 Ja'55. (MLRA 8:2)
(Germany, West--Science)

MALINICHEV, G.

Creative work and high culture. Tekh.mol.23 no.12:30 D '55
(Moscow--Exhibitions) (MLRA 9:2)

MALINICHEV, G.

"Made in Finland." Nauka i zhizn' 27 no.8:38 Ag '60. (MIRA 13:9)

(Moscow--Exhibitions) (Finland--Industries)

MALINICHEV, G.

Automatic engineer. Znan.sila 35 no.9:21 S '60. (MIRA 13:10)
(Moscow--Subways) (Electronic control)

MALINICHEV, G.

Tractor with a diesel motor and electric generator. IUn.tekh. 6 no.2:26 '62. (MIRA 15:2)
(Chelyabinsk--Tractors--Design and construction)

MALINICHEV, G.

Tank for geological surveying. IUn. tekh. 7 no.10:9 O '62.
(MIRA 15:10)

(Geological surveying--Equipment and supplies)
(Motor vehicles)

STEPANENKO, Yu.; KIRPICHNIKOVA, I.; MALINICHEV, G.

Yesterday a dream, today a reality. Znan.-sila 37 no.5:31 My '62. (MIRA 15:9)

(Technological innovations)

MALINICHEV, G.D.; STRELKOV, V.A.

Turbines from Neva banks. Standartizatsiia 29 no.5:28-29 My '65. (MIRA 19:1)

1. Spetsial'nyye korrespondenty zhurnala "Standartisatsiya".

MALINICHEV, G.D.

Minibus with a durable body. Standartizatsiia 29 no. 11:
5-8 N '65 (MIRA 19:1)

MALININ, A. YU.

21683

S/019/61/000/006/030/080
A156/A127

18.3000 1087, 1496, 1454

AUTHORS: Dobrovenskiy, V.V., Lovtsov, D.P., and Malinin, A.Yu.

TITLE: Method for automatic control of direct zone melting

PERIODICAL: Byulleten' izobreteniy, no. 6, 1961, 47

TEXT: Class 40c, 130. No. 136888 (677051/22 of August 22, 1960). 1. A method for automatic control of the process of direct zone melting, its distinctive feature consisting in that for maintaining a stable moving smolten zone, the intensity of heating is continuously checked by means of a difference signal obtained as a result of measuring the degree of the smolten zone's absorption of the radiation of a radio isotope and comparing same with the degree of radiation of the reference unit. 2. A variant differing in that for the purpose of controlling the process in accordance with a predetermined program intended for obtaining cylindrical ingots, the circuit reference unit is provided with an additional absorber corresponding in shape to the given ingot or monocrystal, shifted upwards at zone-progress speed.

Card 1/1

18 9500

24977

S/019/61/000/013/034/075
A154/A128

AUTHORS: Danilkov, N.K., Vasil'yev, A.S., Petrov, Yu.B., Morgun, V.V., Malinin, A.Yu., Bamuner, A.V., Kochergin, L.L., Dudin, A.G., Slukhotskiy, A.Ye., and Pekeris, G.L.

TITLE: A device for obtaining silicon monocrystals

PERIODICAL: Byulleten' izobreteniy, no. 13, 1961, 44

TEXT: Class 40a, 1. No. 139440 (672360/22 of July 6, 1960).
A device for obtaining silicon monocrystals of large cross-section, made in the form of a vertical installation for crucibleless zone melting with an induction heater and an electromagnetic support (podpor) of the liquid zone, distinguished by the fact that the device is made with a single screened casing and is provided with a tube inverter for the purpose of regulating the frequency of a low-frequency generator whose inductor is mounted beneath the melting periphery.

Card 1/1

MALININ, A.

MALININ, A.; AKIMOV. A.V., konsul'tant inzhener; SHLEPINA, M., redaktor; MALEK, Z., tekhnicheskiy redaktor.

[The road toward mastery] Put' k masterstvu. [Moskva] Profizdat, 1953. 71 p. (MLRA 7:8)

1. Tokar' kiyevskogo mashinostroitel'nogo zavoda "Bol'shevik" (for Malinin)
(Machine tools)

MALININ, A. A.

USSR/Automatics and Telemechanics - Relay system FD-3082

Card 1/2 Pub. 10 - 5/8

Author : Malinin, A. A. (Gor'kiy)

Title : Investigation of the movements of a relay system on an electronic model

Periodical : Avtom. i telem., Vol. 16, Nov-Dec 1955, 542-547

Abstract : Yu. I. Neymark ("Periodic regimes and stability of relay systems," ibid., No 5, 1953) proposed a new method for finding the periodic regimes of relay systems and investigating the stability of these regimes. The mathematical calculation of partitioning (razbiyeniye) of the space of parameters for relay systems is very difficult; therefore electronic modeling can serve as an essential complement to mathematical investigation of concrete relay systems. Electron modeling possesses a number of virtues and is successfully applied to investigations of complex dynamic systems (e.g. A. S. Alekseyev, "Electronic model of two-position regulator of temperature with zone of lead," Doklady AN SSSR, 87, No 3, 1952). In the present article the author considers an electron model of a relay system

Card 2/2

FD-3082

Abstract : by means of which he successfully obtains stable periodic movements of various complexity, and he also delineates in the space of parameters the regions of their existence. Three references: e.g. Generirovaniye elektricheskikh kolebaniy spetsial'noy formy [Generation of electrical oscillations of special shape], Soviet Radio Press, 1951.

Institution : -

Submitted : January 28, 1955

ACCESSION NR: AP4035698 S/0057/64/034/005/0868/0872

AUTHOR: Gurov,S.V.; Dzhafarov,T.A.; Malinin,A.A.; Osadin,B.A.; Taynov,Yu.F.

TITLE: Electrode processes in high current vacuum discharges

SOURCE: Zhurnal tekhnicheskoy fiziki, v.34, no.5, 1964, 868-872

TOPIC TAGS: electric discharge, vacuum discharge, high current discharge, electrode erosion

ABSTRACT: Electrode erosion in high current vacuum discharges was investigated by high speed photography of the discharges and microscopic examination of the electrodes. The discharges took place between the ends of coaxial electrodes separated by teflon insulation and located in a chamber evacuated to approximately 3×10^{-5} mm Hg. The inner electrodes were 10 mm in diameter and were of steel, copper, tungsten or tin. The diameters of the outer electrodes were 20 and 28 mm; these were of lead, cadmium, tin, zinc or copper. The energy for the discharge was provided by a bank of electrolytic capacitors charged to from 200 to 300 V and having a capacity of 0.002 to 0.014 farad. The discharge was initiated by a vacuum spark. High speed photographs with a type SFR camera showed the development of a characteristic

Card 1/3