PATROV, B.V.

Charge and capacity of a double layer in the system cast iron - slag. Izv. vys. ucheb. zav.; chern. met. 4 no.7:33-35 '61. (MIRA 14:8)

1. Leningradskiy politekhnicheskiy institut.
(Cast iron—Testing)
(Electrocapillary phenomena)

BATASHEV, K.P.; PATROVA, G.I.; RYABOV, V.A.; RYTVINSKIY, A.I.

Electrolytic chromizing of titanium alloy products. Trudy
LPI no.223:115-124 '63. (MIRA 17:11)

ACCESSION NR: AT4026281 S/2563/63/000/223/0115/0124

AUTHOR: Batashev, K. P.; Patrova, G. I.; Ryabov, V. A.; Ry*tvinskiy, A. I.

TITLE: Electrolytic chromium plating of titanium-alloy parts

SOURCE: Leningrad. Politekhnicheskiy institut. Trudy*, no. 223, 1963. Metallurgiya tsvetny*kh metallov (Metallurgy of nonferrous metals), 115-124

TOPIC TAGS: chromium plating, electrolytic plating, electroplating, titanium, titanium alloy, titanium electroplating, corrosion, titanium corrosion, chromium

ABSTRACT: Chromium plating of titanium and titanium alloys makes possible the elimination of one of their main disadvantages, the tendency to seizing, thus widening their field of application. However, chromium plating of Ti encounters the difficulty of poor adhesion between the Cr and the underlying surface, owing to the presence of TiO_2 film. The preliminary treatment of the Ti surface to remove this film is therefore important and has been attempted with a variety of reagents (HF, NaOH, KOH, HNO_3 + HF, dichromate + HF + $CuSO_4$, and acetic acid + HF + alternating current). In the present paper the authors discuss the preliminary pickling of the surface of Ti and VT-5 Ti alloy in some detail, as well as working out the optimal conditions for chromium plating and the heat treatment of the plated surface. Pickling with HF, HCl, or H_2SO_4 was found to be

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S/081/62/000/013/022/054
B177/B101

AUTHOR: Patrovski, V.

TITLE: A luminophore possessing long afterglow, based on calcium-strontium sulfide

PERIODICAL: Referativnyy zhurnal. Khimiya, no. 13, 1962, 402, abstract 13K113 (Collect Czechosl. Chem. Communs, v. 26, no. 7, 1961, 1799-1804)

TEXT: A luminescent composition showing prolonged afterglow is prepared on the basis of a (Ca,Sr)S:Bi composition, additionally activated by Pb. The initial products of luminescent purity are subjected to further refinement. The charge, consisting of (in g): $CaCO_3$ 150, $SrCO_3$ 50, S 60, $Na_2B_4O_7$, Li_3PO_4 1 and tartaric acid 5, and also Bi 5 mg. and Pb 3 mg. (in solution), is carefully mixed in a mortar with the addition of alcohol, then dried and roasted. After cooling, the composition is crushed and roasted in a closed crucible for 30-40 min at 750-850°C, then pulverized and briefly heated at 450°C. Compositions with a Bi:Pb ratio of

Card 1/2

PATROVSKY, Venceslav

Photometric determination of small amounts of silver in ores.
Chem listy 57 no.3:268-270 Mr '63.

1. Ustredni ustav geologicky, Praha.

PATROVSKY, Venceslav

Contribution to the photometric determination of thallium. Chem listy 57 no.9:961-964 S '63.

1. Ustredni ustav geologicky, Praha.

PAULECH, J.

Distr: 4E2c(j)/4E3d 7

Solubility of vinyl chloride in tetrachloroethylene and methanol. J. Paulech, J. Dykyj, and J. Hasprn (Výzk. ústav pre petrochemiu, Nováky, Czech.). *Chem. průmysl* 9, 347-51(1959); cf. *C.A.* 52, 14286h.—The soly. of vinyl chloride (I) detd. by the amt. that was absorbed in fixed amt. of trichloroethylene (II) or MeOH and by the method of the analysis of the equil. solns. was the same. The analytical and the synthetic app. are described. By the 1st method it is necessary to stabilize II by help of 0.02% of aniline, otherwise the results are low. The advantage of the 2nd method is the possibility of regulating the partial pressure by help of diln. of I by other, poorly sol. gas. The content of I (a % by wt.) in II and in MeOH, resp., was calcd. in this case according to the equation $a = -175.908 + 258.87286v_s - 1.70342v_s^2$ and $a = 665.585 - 524.9111v_s - 2.107194v_s^2$, resp., according to estd. sp. vol. of soln. (v_s) at 20°; the av. deviation is ±0.056% by wt. The measurements were made at temps. from 10 to 20° and partial pressure of I up to 700 mm. Hg. II follows Henry's law in the whole range of temp. and pressures. The soly. isobar of I in II for 730 mm. Hg is a straight line which aims at a point the coördinates of which are those of pure I and its b_{760} −14.1°. Isotherms and isobars of the soly. of I in MeOH have linear character up to 200 mm. Hg, but at higher pressures they curve to higher concns. P. Čefelin

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PAULI, V.L.

Periodicity of biological processes in the ocean. Trudy SBS
11:353-358 '59. (MIRA 13:5)
(Marine biology)

ERDEY, Laszlo, Prof.Dr.(Budapest); PAULIK, Ferenc (Budapest)

Derivatographic investigation of bauxites; thermic decomposition of hydrargillite. In German. Acta chimica Hung. 21 no.2:205-218 '59. (EEAI 9:4)

1. Institute of General Chemistry, Technical University, Budapest.
(Bauxite) (Gibbsite)

81726
S/020/60/133/01/37/070
B011/B003

5.3200

AUTHORS: Topchiyev, A. V., Academician, Paushkin, Ya. M., Nepryakhina, A. V., Anan'yev, P. G., Dmitrevskiy, N. N.

TITLE: Retardation of Hydrocarbon Cracking in Molten Sodium and in Potassium Hydroxide

PERIODICAL: Doklady Akademii nauk SSSR, 1960, Vol. 133, No. 1, pp. 134 - 137

TEXT: The authors studied the conversion of n-heptane and cyclohexene at atmospheric and increased pressures in an autoclave in the presence of sodium and KOH. For comparison, they give the results of n-heptane cracking in the presence of molten aluminum. n-Heptane vapor was continuously blown through a layer of molten metal or through a packing of KOH. At 700-800°C, the vapor had a contact time of ~ 0.5 sec. KOH was applied to active charcoal of the type КАД (KAD). The authors describe the quality of the products used. Table 1 shows that the cracking of n-heptane is inhibited by Na and KOH even at 800°C. The conversion is only 5-7% as compared to 34-57% without Na or KOH. Unchanged n-heptane was

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B011/B003

Retardation of Hydrocarbon Cracking in Molten Sodium and in Potassium Hydroxide

obtained as a condensate from this cracking. No liquid products are formed. The cracking gas largely differs from that of thermal cracking: the hydrogen content amounts to 60-85% apart from a low content of unsaturated hydrocarbons. n-Heptane is radically changed when it comes into contact with aluminum. The conversion increases with rising temperature and duration of the experiment: at 700°C = 65.3%, at 800°C almost 100%. This is almost the double amount of experiments without aluminum. Both gaseous and liquid products as well as condensation products including carbides are formed. The authors assume that at the initial stage organo-sodium compounds are formed between 300 and 800°C under the separation of hydrogen. The cracking is inhibited by the addition of H_2 to the olefins in statu nascendi (see Scheme). Cyclohexene was exposed to a temperature of 400 or 500°C and a pressure rising from 20 to 70 atm, after which the autoclave was gradually cooled. The experiments were performed with and without sodium. At 500°C, cyclohexene is completely resinified without Na (specific gravity of 0.9103), 2% of gaseous products being formed. Slight changes occur in the presence of Na: The iodine number decreases, and about 1.4% of gases are formed.

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81726

Retardation of Hydrocarbon Cracking in Molten Sodium and in Potassium Hydroxide

S/020/60/133/01/37/070
B011/B003

There are 5 tables and 12 references: 7 Soviet, 4 American, and 1 German.

SUBMITTED: April 7, 1960

Card 3/3

PAVLENKO, S.M.

[Methodological procedures and the methodology of experimental medicine; sources of some errors in medicine] O metodicheskikh priemakh i metodologii eksperimental'noi meditsiny; ob istochnikakh nekotorykh oshibok v meditsine. Moskva, 1959. 22 p. (MIRA 13:9)

(MEDICINE, EXPERIMENTAL)

PAVLENKO, V.

A harmful "textbook" for geography teachers ("Union Republics of Central Asia" by E.I.Lagovskaia. Reviewed by V. Pavlenko). Geog.v shkole 23 no.1:94-95 Ja-F '60. (MIRA 13:5)
(Soviet Central Asia--Economic conditions)
(Lagovskaia, E.I.)

PREYS, G.A., kand.tekhn.nauk; PAVLIK, P.F., inzh.

Investigating the wear resistance of capron. Vest.mash. 40 no.2: 39-44 F '60. (MIRA 13:5)
(Nylon--Testing)

PATRIN, P.A., inzh.

Burning keramzit in two-drum kilns. Sbor. trud. NII po stroi. ASiA [Rost.] no.6:35-43 '62. (MIRA 17:9)

PATRINA, A. K.

Patrina, A. K.

"On the history of nervism in Russian medicine. A. A. Ukhtomskiy and his role in the development of neurophysiology and the theory of medicine." First Moscow Order of Lenin Medical Inst imeni I. M. Sechenov. Moscow, 1[illegible]. (Dissertation for the Degree of Doctor in Medical Science).

Knizhnaya letopis
No. 15, 1956. Moscow

PATRINA, G. V.

Method of determination of tellurium dioxide in air. Gig. sanit., Moskva no.3:46 Mar 1952. (CLML 22:2)

PATRINA, G. V.

Air - Analysis

Method of determination of tellurium dioxide in the air. Gig. i san. No. 3 March 1952.

9. <u>Monthly List of Russian Accessions</u>, Library of Congress, August 1952 Uncl.

PATRINA, G. V.

Tellurium

Method of determination of tellurium dioxide in air. Gig. i san. No. 3, 1952.

9. Monthly List of Russian Accessions, Library of Congress, August 195~~3~~2, Uncl.

PATRINA, G. V.

Tellurium

Method of determination of tellurium dioxide in air. Gig. i san, No. 3, 1952.

9. Monthly List of Russian Accessions, Library of Congress, August 195~~3~~2 Uncl.

PATRINA, G. V.

Air - Analysis

Method of determination of tellurium dioxide in the air. Gig. i san. No. 3 March 1952.

9. Monthly List of Russian Accessions, Library of Congress, August 1952 Unclassified.

PATRINA, G. V.

Tellurium

Method of determination of tellurium dioxide in air. Gig. i san. No. 3, 1952.

9. Monthly List of Russian Accessions, Library of Congress, August 1952 ~~1953~~. Unclassified.

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Determination of tellurium dioxide in air. G. A. Patrun. *Gigiena i Sanit.* 1952, No. 3, 40.—Pass 50-100 l. of air sample through a cotton filter moistened with 7.5 *N* HNO. Wash the filter with HNO_3 and H_2O; evap. to dryness, take up in 6 *N* HCl, boil 5 min., and treat a 5-ml. aliquot with 0.2 ml $SnCl_2$ soln. Compare the resulting brown color with standards. The $SnCl_2$ soln. is a 20% soln. of the dihydrate in 3 *N* HCl.

G. M. Kosolapoff

PATRINA, K.T.

Understanding of the meaning of words by preschool children. Vop. psikhol. 5 no.4:59-63 Jl-Ag '59. (MIRA 12:11)

1. Karachayevskiy gosudarstvennyy pedagogicheskiy institut.
(Children--Language)

Патрина, Н.Н.

USSR/Phase Transformation in Solid Bodies.

E-6

Abs Jour : Referat Zhur - Fizika, No 5, 1957, 11734

Author : Prosvirin, V.I., Patrina, N.A.

Inst : -

Title : Isothermal Hardening of High-Strength Cast Iron with Spheroidal Graphite.

Orig Pub : Metallovedeniye i obrabotka Metallov, 1955, No 2, 42-50

Abstract : No abstract.

Card 1/1

P[illegible]

"Structural Conversions and the Change of Properties of High-Strength Cast Iron With Globular Graphite During Heat Treatment." Cand Tech Sci, Central Sci Res Inst of Technology and Machine Building--TsNITTMash, 22 Feb 54. Dissertation (Vechernyaya Moskva Moscow, 11 Feb 54)

SO: SUM 186, 19 Aug 1954

PATRINA N.A.

1431* Isothermal Hardening of High-Strength Spheroidal Cast Iron. Izotermicheskaia zakalka vysokoprochnogo chuguna s sharovidnym grafitom. (Russian.) V. I. Prosvirin and N. A. Patrina. *Metallovedenie i obrabotka metallov*, 1955, no. 2, Aug., p. 48-60.

M6

Isothermal transformation of austenite; hardness, wear resistance, fatigue strength, and other mecahnical properties of high-strength cast iron in relation to temperature of quenching medium and time. Variations of heat treatment, including tempering soaking, normalizing, ferritic and perlitic cast irons. Tables, graphs.

①

5(3)

AUTHORS: Lin'kova, M. G., Patrina, N. D., Knunyants, I. L., Academician SOV/20-127-3-23/71

TITLE: A New Method of Producing Propiothiolactone

PERIODICAL: Doklady Akademii nauk SSSR, 1959, Vol 127, Nr 3, pp 564-566 (USSR)

ABSTRACT: Under the influence of chloro carbonic acid ester, β-propiothiolactone is developed by β-mercapturic acids (Refs 1-3) in the presence of triethylamine. It proved, however, that the same thiolactones can be developed more easily by an influence of H_2S on the chlorides of β-halogen-carboxylic acids. The extension of the reaction (I) on the chlorides of other β-halogen-carboxylic acids showed that the new method is of universal validity for the production of β-propiothiolactone. A careful investigation of the formation conditions of α-propiothiolactone showed that, according to the permanence of the developing β-propiothiolactone, in some cases sodium sulphide may be used instead of H_2S. In order to prevent a splitting of the developing thiolactone, the temperature

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has to be kept low, the theoretical amount of triethylamine has to be used and too great an excess of H_2S has to be prevented. Besides, the formation possibility of α,α-diphenyl-β-propio-thiolactone by dehydration (angidratizatsya) of α,α-diphenyl-β-mercapto-propionic acid was proved; for this purpose one may use either chlorocarbonic ester or anhydride of phosphoric acid. The dehydration of β-oxy-acids, however, takes place under the development of unsaturated α,β carboxylic acids. In case of α,α-bi-substituted β-oxy-acids, no β-propiolactone develops, but a reaction takes place contrary to the aldol condensation (Refs 4,5) (see scheme). β,β-ditrifluorine-methyl-β-oxy-propionic acid is an exception, since β,β-difluorine-methyl-β-propiolactone was produced from it recently, in the laboratory mentioned in the Association. There are 6 references, 3 of which are Soviet.

ASSOCIATION: Institut elementoorganicheskikh soyedineniy Akademii nauk SSSR (Institute für Elemental-organic Compounds of the Academy of Sciences, USSR)

SUBMITTED: May 20, 1959

Card 2/2

5 (3) SOV/20-127-4-19/60

AUTHORS: Lin'kova, M. G., Patrina, N. D., Knunyants, I. L., Academician

TITLE: Addition of Alkyl-sulphenchlorides to Acrylic Acid Derivatives

PERIODICAL: Doklady Akademii nauk SSSR, 1959, Vol 127, Nr 4, pp 799-802 (USSR)

ABSTRACT :

According to the polarity of the chlorides, referred to in the title the addition mentioned there does not present any difficulties resulting in the formation of α-alkyl-thio-β-chlorine-substituted acids (see Scheme) (Ref 1). It was necessary to check the data contained in reference 2, in which the author ascribes the structure of the α-chloro-β-alkyl thioderivatives of propionic acid to these addition products (see Scheme). Further investigations of the reaction mentioned in the title, by the authors have again confirmed the opinions stated by them before and have refuted the opinion expressed in reference 2, i. e. the addition of the ethyl-sulphen-chloride to acrylic, methacrylic, and dimethyl-acrylic acid, to the acrylonitrile, as well as to the acid chloride and the ethyl ester of dimethyl acrylic acid results in the formation of β-chloro-α-alkyl thioderivatives of propionic acid (see Scheme). During this

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reaction the ethyl-sulphen chloride is easily added to esters, while it is more difficult to add it to acids and nitriles, and most difficult to add it to acid chlorides (Ref 1). From the acid chlorides of β-chloro-α-alk thioderivatives of propionic acid corresponding β-propiothiolactones (Ref 5) were obtained by means of H_2S (see Scheme). With an order other than that illustrated by the scheme, the formation of the said lactones would be impossible. Without cogent reasons Gundermann has given his consent to the assertions of Brintzinger (Ref 2) according to which the alkyl thiogroup assumes a β-position under the action of sulphen chlorides on acryl systems, whereas the chlorine atom assumes an α-position. To give a definite explanation of this problem the authors prepared α-chloro- -ethyl thiopropionitrile (I) and α-ethyl thio-β-chloro propionitrile (II) and compared their properties with one another By adding ethyl mercaptan to α-chloro acrylonitrile (Ref 7) the following reaction was brought about:

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$$CH_2{=}CClCN \xrightarrow{C_2H_5SH} C_2H_5S - CH_2 - CHClCN \quad (I).$$

Addition of Alkyl-sulphenchlorides to Acrylic Acid Derivatives SOV/20-127-4-19/60

while by the addition of ethyl sulphen chloride to acrylonitrile the following reaction took place :

$$CH_2{=}CHCN \xrightarrow{C_2H_5SCl} CH_2ClCH(SC_2H_5)CN \qquad (II)$$

It was found that I and II showed the same boiling point, refractive indices and specific weights whereas they differ greatly in their chemical properties; nor are their infrared spectra the same (Figs 1 and 2). Hence, the negative charge in alkyl sulphen chlorides is concentrated on the chlorine atom, and that alkyl-sulphen chlorides are added to acryl systems according to the above polarization thus forming α-alkyl thio-derivatives. There are 2 figures and 7 references, 2 of which are Soviet.

ASSOCIATION: Institut elementoorganicheskikh soyedineniy Akademii nauk SSSR (Institute for Elemental-organic Compounds of the Academy of Sciences, USSR)

SUBMITTED: May 20, 1959

Card 3/3

AUTHORS: Reutov, O. A., Ptitsyna, O. A., Patrina, N. D. 79-28-3-5/61

TITLE: Double Diazo Salts of Stannic Trichloromethyl and of Stannic Dichlorodiethyl (Dvoynyye diazoniyevyye soli trekhkhloristogo metilolova i dvukhloristogo dietilolova)

PERIODICAL: Zhurnal Obshchey Khimii, 1958, Vol. 28, Nr 3, pp. 586-592 (USSR)

ABSTRACT: According to a method for the synthesis of double diazo salts of antimony organic compounds (ref. 4) elaborated by one of the authors earlier, the authors in the present work carried out the synthesis of the double diazo salts of stannic trichloromethyl. These salts were synthetized by pouring together in the cold an aceton solution of the freshly produced $ArN_2Cl.FeCl_3$-salt with the methyl alcohol solution of CH_3SnOOH which was saturated with hydrogen chloride: $CH_3SnOOH + 3HCl \rightarrow CH_3SnCl_3 + 2H_2O$. $2ArN_2Cl.FeCl_3 + CH_3SnCl_3 \rightarrow (ArN_2Cl)_2.CH_3SnCl_3 + 2FeCl_3$. The salts $(C_6H_5N_2Cl)_2.CH_3SnCl_3$ and $(p\text{-}C_7H_7N_2Cl)_2CH_3SnCl_3$, and others

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Double Diazo Salts of Stannic Trichloromethyl and of Stannic 79-28-3-5/61
Dichlorodiethyl

could not be obtained in this way. Therefore an one-step
method for the synthesis of the diazo salts of stannic tri-
chloromethyl was elaborated as follows: the chloride solution
of CH_3SnOOH was added to a diazo solution which had been
obtained by diazotizing an aromatic amine in hydrochloric
acid by means of sodium-nitrite - this immediately leading
to a precipitate of $(ArN_2Cl)_3 \cdot CH_3SnCl_3$-salt. The use of o-
-toluidine did not furnish any diazo salt. The double diazo
salts of stannic trichloromethyl obtained according to either
method are mentioned in table 1. In the synthesis of the
double diazo salts $(C_2H_5)SnCl_2$ another method had to be used:
the chloride of the amine was dissolved in alcohol and then
diazotized with isoamylnitrite. The stannic dichlorodiethyl
dissolved in alcohol was then added to the diazo solution.
The formation of the double salt $(C_2H_5)_2SnCl_2$ can be
represented by the following reaction process:
$ArNH_2 \cdot HCl + C_5H_{11}ONO \rightarrow ArN_2Cl + C_5H_{11}OH + H_2O$,
$2ArN_2Cl + (C_2H_5)_2SnCl_2 \rightarrow (ArN_2Cl)_2(C_2H_5)_2SnCl_2$. The salts

Card 2/3

Double Diazo Salts of Stannic Trichloromethyl and of Stannic 79-28 3-5/61
Dichlorodiethyl

synthetized this way are mentioned in table 2. There are 2 tables and 5 references, 4 of which are Soviet.

ASSOCIATION: Moskovskiy gosudarstvennyy universitet (Moscow State University)

SUBMITTED: February 7, 1957

Card 3/3

L

COUNTRY : USSR
CATEGORY : Meadow Cultivation.

ABS. JOUR. : RZhBiol., No. 3, 1959, No. 10829

AUTHOR : Patriyevskaya, G. F.
INST. : Siberian Division, AS USSR
TITLE : The Influence of Spring and Autumn Fertilizers and Burned Vegetation on Some Meadow Formations in Prikhankayskaya Plain.

ORIG. PUB. : Izv. Sibirsk. otd. AN SSSR, 1958, No. 3, 108-120

ABSTRACT : The Biological Institute of the Far Eastern Affiliate, AS
USSR has been investigating for a number of years the
natural meadow lands of Prikhankayskaya Plain in Primor-
skiy Kray. In 1954-1955, there were organized at one of
the kolkhozes experiments in the application of mineral
fertilizers on the meadows. Experiments with the autumn
fertilizers were set up on arundineous meadow with an
admixture of celeriac and the experiments with the spring
fertilizer on bentgrass meadow with an admixture of fes-
cue. The fertilizers were applied according to the fol-

CARD: 1/3

PARIYEVSKAYA, G.P.

Mass flowering of aftergrass in the Arundinella meadows of the Khanka Plain in Maritime Territory. Bot.zhur. 44 no.5:66[illegible]-668 [illegible]

(MIRA [illegible])

1. Botanicheskiy institut im. V.L. Komarova AN SSSR, Leningrad.
(Khanka Plain--Pastures and meadows) (Arundinella)

PATRIYEVSKAYA, G. F.: Master Biol Sci (diss) -- "The meadows of the kolkhoz imeni Il'ich (village of Astrakhanka) Khankayskiy Rayon, Primor'ye Kray, and methods of improving them". Leningrad, 1958. 20 pp (Acad Sci USSR, Botanical Inst im V. L. Komarov), 150 copies (KL, No 6, 1959, 130)

PATRIYEVSKAYA, G.F.

Material on the Arundinella meadows of the Khanka Plain. Izv. Sib.otd.AN SSSR no.5:112-120 '59. (MIRA 12:10)

1. Biologicheskiy institut Akademii nauk SSSR.
(Khanka Plain--Pastures and meadows)

PATRIYEVSKAYA, G.F.

Effect of spring and fall application of fertilizers and fires on some meadow plant communities of the Khanka Plain. Izv. Sib. otd. AN SSSR no.3:108-120 '58. (MIRA 11:8)

1.Dal'nevostochnyy filial AN SSSR i Biologicheskiy institut AN SSSR.
(Khanka Plain--Pastures and meadows) (Fertilizers and manures)
(Burning of land)

Possibilities of photometric estimations in long-wave ultraviolet range by means of standard photoelectric colorimeters. 3 Venceslav Patrovský (Ustřední ústav geol., Prague). ~~Chemie (Prague)~~ 10, 707(1958).—A Hilger Spekker app. with a 100-w. W filament lamp was adapted by using a Cu-Ni glass filter (SiO_2 60, K_2O 16, BaO 0.25, NiO 8, CaO 1%, mainly transmitting 3000-4000 with max. 3800 A.) in combination with a light blue filter (B_1) to remove the red component. Fe^{3+} (in HCl), Cr (as CrO_4^{--}), W(KCNS or pyrocatechol reaction), Ce^{4+}, Nb(CNS^- reaction), $NaNO_2$, and methylumbelliferone were studied. Examples of estns. of Fe (in glass factory materials) and Cr (after Na_2O_2 oxidn.) are given. I. M. Hais

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4E3d

PAHLAK, R.

"Ore-dressing plant with conveyable and multibucket loader."

Hutnik. Praha, Czechoslovakia. Vol. 9, no. 3, Mar. 1959.

Monthly List of East European Accessions (EEAI), LC, Vol. 8, No. 6, Jun 59, Unclas

PATRNA, Helena, MUDr.

Analysis of two cases of habitual abortion. Cas. lek. cesk.
94 no.23:629 3 June 55.

1. (Diskuse k praci MUDr. Jaroslava Horskeho v CLC z 12. II 1954.)
Vlastni pozorovani.).
(ABORTION
habitual, analysis of case.)

MOTAS, I. C.; PATROESCU, C.

A Meotian andesitic tuffite of Oltenia. Comunicarile AR 11 no.9: 1105-1109 S '61.

1. Institutul de geologie, geofizica si geografie al Academiei R.P.R.; Catedra de mineralogie si petrografie, Facultatea de geologie-geografie, Universitatea "C. I. Parhon," Bucuresti. Comunicare prezentata de M. G. Filipescu, membru corespondent al Academiei R.P.R.

RADULESCU, Dan P.; PATROESCU, Constantin

Wavs of alteration in magmatic rocks under the action of exogenous agents. I. Andesites. Studii cerc geol 6 no.3:561-580 '61.

1. Comunicare presentata de M. Savul, membru corespondent al Academiei R.P.R. si membru al Comitetului de redactie, "Studii si cercetari de geologie.

PATROESCU,

17

SURNAME (in caps); Given Names

Country: Rumania

Academic Degrees: -not given-

Affiliation: -not given-

Source: Bucharest, <u>Comunicarile Academiei Republicii Populare Romine</u>, Vol XI, No 9, 1961, pp 1105-1109.

Data: "On an Andesitic Meotian Tufite of Oltenia."

Authors:

MOTAS, I. C.
PATROESCU, C.

[illegible], [illegible].

Cementing wells [illegible]
[illegible], Budapest, [illegible]

SO: Monthly List of East European Accessions, (EEAL), LC, Vol. 4, [illegible],
Uncl.

PATRON, T.

Combating filtration of cement slurry. p. 72

PETROL SI GAZE, Bucuresti, Vol 7, No. 2, Feb., 1956

SO: East European Accessions List (EEAL) Library of Congress, Vol 5, No. 7, July, 1956

PATRONOV, I.

Itogi sovremennago vozdukhoplavaniia v primienenii k voennomu dielu. [Summary of present day aeronavigation, as applied to militery matters]. S.-Peterburg, 1911. 63 p. maps. DLC: UG630.P33

SO: *Soviet Transportation and Communications, A Bibliography,* Library of Congress, Reference Department, Washington, 1952, Unclassified.

PATRONOV, I

Dukh i materiia.

PATRNA, Helena, MUDr

Experience in therapy of typhoid fever with chloromycetin. Cas. lek.cesk. 91 no.12:368-371 21 Mar 52.

1. Z infekcniho odd. Stat. obl. nemocnice v Liberci, prednosta MUDr Vaclav Hasek.

(TYPHOID FEVER, therapy,
chloramphenicol)
(CHLORAMPHENICOL, ther. use,
typhoid fever)

BODNER, Vasiliy Afanas'yevich, prof., doktor tekhn. nauk; KOZLOV, Mikhail Stepanovich; PATROV, B.N., akademik, retsenzent; IZVOL'SKIY, Ye.G., kand. tekhn. nauk, dotsent, retsenzent; MIKHALEV, I.A., kand. tekhn. nauk, retsenzent; SUVOROVA, I.A., red. izd-va; PUKHLIKOVA, N.A., tekhn. red.

[Automatic pilots and the stabilization of aircraft] Stabilizatsiia letatel'nykh apparatov i avtopiloty. Pod red. V.A.Bodnera. Moskva, Gos.nauchno-tekhn.izd-vo Ovorongiz, 1961. 508 p. (MIRA 14:12)
(Automatic pilot (Airplanes)) (Stability of airplanes)

PATROV, B.V., inzh.

Electrocapillary phenomena in the iron - slag system. Izv.vys.
ucheb.zav.; chern.met. 2 no.6:3-7 Je '59. (MIRA 13:1)

1. Leningradskiy politekhnicheskiy institut.
(Electrocapillary phenomena)

PATROV, B.V.

Effect of manganese and silicon on the electrocapillary properties of cast iron in molten slag. Izv. vys. ucheb. zav.; chern. met. 5 no.1:48-51 '62. (MIRA 15:2)

1. Leningradskiy politekhnicheskiy institut.
(Cast iron)
(Electrocapillary phenomena)

PATROV, S.R., inzhener.

Penetrating preservatives for railroad ties. Transp.stroi. 6 no.11:30 N '56. (MIRA 10:1)
(Railroads--Ties) (Wood--Preservation)

VULIS, Lev Abramovich; KASHKAROV, Vasiliy Petrovich; PATRON, V.Z., red.

[Theory of jets of viscous fluids] Teoriia strui viazkoi zhidkosti. Moskva, Nauka, 1965. 431 p. (MIRA 18:9)

BATASHEV, K.P.; YABLONSKAYA, N.S.; PATROVA, G.I.

Electrolytic deposition of palladium. Trudy LPI no.188:225-231 '57. (MIRA 11:9)

(Palladium) (Electroplating)

PATROVA, G.I.

137-58-5-10268

Translation from: Referativnyy zhurnal, Metallurgiya, 1958, Nr 5, p 197 (USSR)

AUTHORS: Batashev, K.P., Yablonskaya, N.S., ~~Patrova, G.I.~~

TITLE: Electrodeposition of Palladium (Elektroliticheskoye osazhdeniye palladiya)

PERIODICAL: Tr. Leningr. politekhn. in-ta, 1957, Nr 188, pp 225-231

ABSTRACT: An investigation is made of the processes involved in palladium plating in phosphorus electrolyte (E) in a stationary bath and in a bell-type bath, and also in neutral E with soluble anodes. Palladium plating in quiet E was run under the following conditions: Solution of 2.5-10 g $PdCl_2$/liter, 2.5 g benzoic acid/liter, 20 g $(NH_4)_2HPO_4$ per liter, 100 g Na_2HPO_4/liter, pH 6.5-7.0, temperature 50°C, $D_K = 0.1$ amp/cm^2, potential 1 or 2 v. Pt, Pd, and carbon anodes were tried. Carbon electrodes are recommended for large-scale industrial palladium plating. The Pd was deposited directly on parts made of polished phosphorus bronze. It is shown that 1.5-2 micron bright Pd platings can be produced in phosphate E containing from 5 to 10 g $PdCl_2$ per liter, the temperature of the solution being 50°C. The dependence of current efficiency in Pd deposition upon the bath content of $PdCl_2$

Card 1/2

137-58-5-10268

Electrodepositon of Palladium

(1-10 g/liter) and upon current density (0.05-0.2 amp/dm^2) is investigated. The highest current efficiency is that at 10 g $PdCl_2$/liter and D_K= 0.1 amp/dm^2. The polarization curve of the Pd deposition process can be divided into 3 segments. In the first segment the process occurring does not involve liberation of Pd. The second segment is that in which the $Pd^{2+} + 2e \rightarrow Pd$ reaction occurs. Liberation of H_2 in addition to Pd is observed during the period represented by the third segment. The maximum current for the $Pd^{2+} + 2e \rightarrow Pd$ reaction is that occurring at D_K =0.15 amp/dm^2. It is shown that a reduction in the $PdCl_2$ content of the bath to less than 2.5 g/liter results in a dark deposit and diminishes the current efficiency. A 4-liter bell has been designed to mechanize the palladium plating of small parts. Under the same conditions as those used in a quiet bath, and with a 10-dm^2 area of part surface to be plated, bright Pd deposits of 1.5-2 micron thickness were obtained. The porosity of the Pd deposit is determined by immersion in a 15% HNO_3 solution for 10-30 min. The pores are marked by the points at which bubbles attach to the surface. It is found that the number of pores goes as high as 25 per cm^2 in a coating 0.1 micron thick, while no pores are found in a 3.5-micron coating. It was found that it is possible to coat with palladium in neutral E with soluble Pd anodes, provided that an area of insoluble carbon anodes equal to 1/3 the area of the Pd anodes is had in parallel.

Card 2/2 1. Palladium--Electrodeposition L.A.

PATROVITSKY, V.I.

1ST AND 2ND ORDERS

PROCESSES AND PROPERTIES INDEX

3RD AND 4TH ORDERS

Extrapolation to Temperatures Above the Melting Point of Gold by Means of the Optical Pyrometer and the Calibration of a High-Temperature Scale from 1063° to 3000° C. V. I. Patrovitsky (*Sbornik Trudov Vsesoyuz. Nauch.-Issledovatel. Inst. Metrol.* [illegible]), 3–30; *C. Abs.*, 194[illegible], 39, 5162).—(In Russian.) Instruments employing extrapolation to high temperatures are discussed. In the application of optical pyrometers equipped with glass filters, it is necessary to know the exact value of the effective wave-length. The upper extrapolated temperature limit obtained by means of an optical pyrometer and a set of sector discs with a constant opening and a Corning-glass filter (4·0 mm. thick) was 2580° K. Further extrapolation is possible only if a combination of sector discs with absorbing glass is used. This system permits measurements of temperatures up to 33[illegible]5° K.

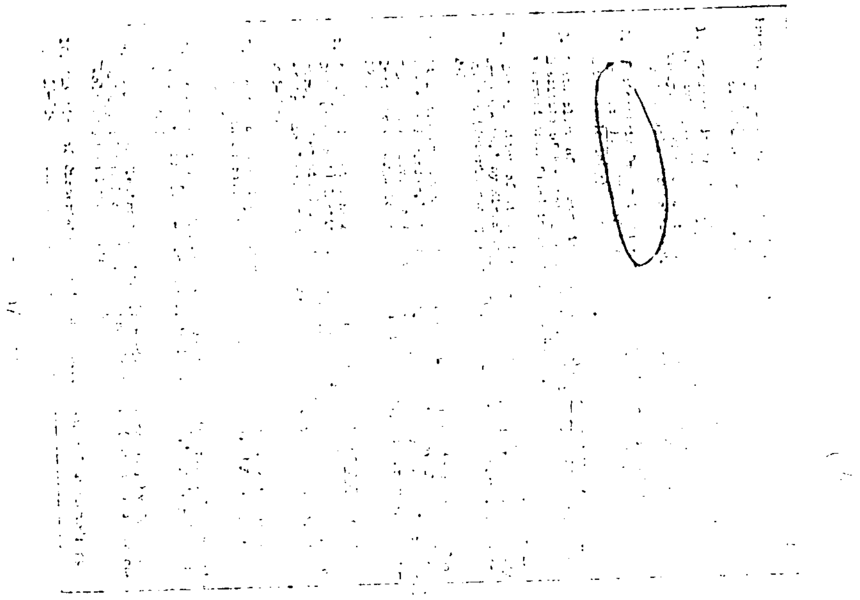
PATROVSKI, V.[Patrovsky, V.]

A luminiphor with long-lasting afterglow based on calcium strontium sulfide. Coll Cz Chem 26 no.7:1799-1804 Jl '61.

1. Institut mineral'nogo syr'ia. Praga.

(Fluorescence) (Sulfides)

PATROVSKY, V.



PATROVSKY, V.

"Fast qualitative analysis of cations and anions" by G. Charlot.
Reviewed by V. Patrovsky. Coll Cz chem 27 no.10:2471-2472 O '62.

L 34437-66 EWP(t)/ETI IJP(c) JD/JG

ACC NR: AP6026223 SOURCE CODE: CZ/0008/65/000/012/1464/1468

AUTHOR: Patrovsky, Venceslav

51

B

ORG: Central Institute of Geology, Prague (Ustredni ustav geologicky)

TITLE: Photometric determination of small quantities of niobium 21 and tantalum in minerals

SOURCE: Chemicke listy, no. 12, 1965, 1464-1468

TOPIC TAGS: photometric analysis, chemical identification, niobium, tantalum, quantitative analysis

ABSTRACT: The best results in photometric determination of Nb and Ta are obtained by means of pyridylazoresorcin and thiazolylazoresorcin. The mineral sample is melted with sodium carbonate, extracted with water, dried, dissolved in HCl, dried, redissolved, treated with sulfuric and hydrofluoric acids, melted with $KHSO_4$ and dissolved in water. Nb and Ta are separated from W, Sn, and Ti by solvents, and Nb is determined photometrically using thiazolylresorcin. Ta is determined photometrically using p-dimethylaminophenylfluorone. The method is suitable for the determination of 5-100 microns of Nb_2O_5 and 20-400 Ta_2O_5. Orig. art. has: 2 tables. [JPRS: 34,669]

SUB CODE: 07, 20 / SUBM DATE: 26Oct64 / ORIG REF: 007 / SOV REF: 002
OTH REF: 006

Card 1/1 ms

PATROVSKY, V.

Determination of niobium, tantalum and titanium with the 7,8-dihydroxy-4-methylcoumarin. Coll Cz Chem 27 no.8:1824-1829 Ag '62.

1. Zentralinstitut fur Geologie, Prag.

35132
S/058/62/000/002/009/053
A058/A101

24.3500 (1137,1138,1395)

AUTHOR: Patrovski, V.

TITLE: Calcium-sulfide and strontium-sulfide luminophors possessing protracted afterglow

PERIODICAL: Referativnyy zhurnal, Fizika, no. 2, 1962, 55-56, abstract 2V441 ("Collect. Czechosl. Chem. Communs", 1961, v. 26, no. 7, 1799-1804, German summary)

TEXT: It was established that a small amount of Pb substantially increases the afterglow of Bi-activated calcium sulfide (CaS) and strontium sulfide (SrS). The conditions for producing this luminophor were determined and its characteristic properties were measured. The afterglow of this luminophor is several times greater than that of the substances possessing protracted afterglow that have been known up to the present.

[Abstracter's note: Complete translation]

Card 1/1

PATROVSKY, V.

6

Complexometric titrations. XXII. Volumetric determination of iron, aluminium and titanium in silicates. Chelatometric determination of calcium and magnesium. V. Pátrovský and M. Huka (Chem. Listy, 1956, 50, [illegible]; Coll. Trav. chim. Tchécosl., 1957, 22, 37).—After removal of SiO_2 by evaporation with HCl, iron is determined by titration with 0·1 M-EDTA (disodium salt), using sulphosalicylic acid at pH 2–3 and 40–50°, to a dark blue colour. Then excess of the EDTA is added, with a few drops of pyrocatechol violet, Na acetate to pH ~4·5, urotropin and 5% aq. NH_3 to a dirty yellow colour. The solution is titrated with 0·1 M-$CuSO_4$ to a dark blue colour to determine Al + Ti. Ti is determined colorimetrically in another aliquot of the solution. Interference is caused by Mn, Co, Ni, Zn, Be and Cr, but none by Ca, Mg, borate, phosphate or V. After removal of Fe, Al and Ti, the filtrate may be used to determine Mn (colorimetrically with formaldoxime), Ca (by titration with EDTA to murexide), and Ca + Mg (by titration with EDTA to Eriochrome black T).

C. D. Kopkin.

PATROVSKY, V.

SCIENCE

Periodical COLLECTION OF CZECHOSLOVAK CHEMICAL COMMUNICATIONS. SBORNIK CHEKHOSLOVATSKIKH KHIMICHESKIKH RABOT. Vol. 23, no. 1, Jan. 1958.

PATROVSKY, V. A new method of separating and estimating rhenium. In German. p. 85.

Monthly List of East European Accessions (EEAI) LC, Vol. 8, no. 3, March, 1959. Uncl.

PATROVSKY, V.

SCIENCE

Periodical CHEMICKE LISTY. Vol. 52, no. 2, Feb. 1958.

PATROVSKY, V. Use of complexones in chemical analysis. LIII. Photometric estimation of niobium and tantalum with catechol and ethylenediaminetetraacetic acid. p. 255.

Monthly List of East European Accessions (EEAI) LC, Vol. 8, no. 3, March, 1959. Uncl.

PATROVSKY, V.

Separation tantalum from some elements through phenyl arsenic acid. Coll Cz Chem 30 no.5:1727-1730 My '65.

1. Zentralinstitut fur Geologie, Prague. Submitted June 30, 1964.

PATROVSKY, Venceslav, inz. CSc.

Determining small amounts of tungsten, tin, niobium, tantalum, scandium, indium, thalium and lithium in Krusne hory raw materials and products thereof. Rudy 13 no.3:89-[illegible] Mr '65.

1. Central Geological Institute, Prague.

CZECHOSLOVAKIA / Analytical Chemistry. Analysis of Inorganic Substances. E

Abs Jour: Ref Zhur-Khim, No 12, 1959, 42080.

Author : Patrovsky, V.
Inst : Not given.
Title : Application of Complexons in Analytical Chemistry. LIII. Photometric Determination of Niobium and Tantalum with Use of Pyrocatechin and Ethylenediaminetetraacetic Acid.

Orig Pub: Collect. czechosl. chem. commun., 1958, 23, No 9, 1774-1781.

Abstract: No abstract. See Ref Zhur-Khim, 1958, No 23, 77256. Report LII see Ref Zhur-Khim, 1958, No 19, 64162.

Card 1/1

E-10

PATROVSKY, V.

Contribution to the flame photometric determination of scandium, yttrium, erbium and ytterbium. Coll Cz Chem 26 no.9:2445-2449 '61.

1. Institut fur anorganische Rohstoffe, Prag.

(Photometry) (Scandium) (Yttrium) (Erbium) (Ytterbium)

PATROVSKIY, V. [Patrovsky, V.]

Synthesis of niobium and tantalum complexes with pyrocatechol and ethylenediaminotetraacetic acid. Coll Cz Chem 29 no.5:1307-1310 My '64.

1. Central Geological Institute, Prague.

PATROVSKY, Venceslav

Progress in the analytical chemistry of niobium and tantalum.
Chem listy 58 no. 6:657-664 Je '64.

1. Central Geological Institute, Prague.

PATROVSKY, Venceslav, inz. CSc.

Photometric determination of mercury and silver by dithizone. Rudy 12 no.6:207-208 Je '64.

1. Central Geologic Institute, Prague.

PATROVSKY, V.; JANOUSEK

"Handbook of inorganic colorimetric analysis" by A.Dragomirecky, V.Mayer, J.Michal, K.Rericha. Reviewed by V.Patrovsky, Janousek. Chem listy 58 no. 4:481-483 Ap '64.

PATROVSKY, V.

Distr: 4E2c

Complexometric titrations (chelatometry). XLIV. Determination of yttrium in the mixture of yttrium earths. V. Patrovský (Ústřední geolog. ústav, Prague). *Collection Czechoslov. Chem. Communs.* 24, 3305-8(1959)(in German); cf. *C.A.* 54, 168c.—Evap. the Th-free oxalates of rare earths with concd. HNO_3 almost to dryness, dissolve the residue in a min. amt. of H_2O, add 0.5 ml. satd. aq. K_2SO_4 and 0.5 g. solid K_2SO_4, keep the mixt. 1 hr. under occasional stirring in a cool place, filter off the pptd. double sulfates of Ce earths, dil. the filtrate to 60-80 ml., ppt. the hydroxides of Y earths with a small excess of aq. NH_3, filter off the ppt., dissolve it in a little HNO_3, repeat the pptn., wash the ppt. with 2% aq. NH_3, dry, ignite to a const. wt., weigh the oxides obtained, dissolve in a min. amt. of concd. HNO_3, evap. excess HNO_3, dil. the soln. to 50-100 ml. with H_2O, add NaOAc, AcOH, and hexamethylenetetramine, resp., to obtain pH 5, and titrate with 0.02*M* complexon III to a lemon-yellow coloration with the use of aq. Xylenol Orange (cf. Körbl, Přibil, and Emr, *C.A.* 51, 9306b) as indicator. An indirect complexometric detn. of Y in the mixt. with Er was carried out analogously.

Jiří Plíml

2

1/1

Patrovsky, V.

6

V/

2462. Photometric determination of vanadium and molybdenum in the presence of each other by means of catechol. V. Patrovský (Ústřední ústav geol., Prague, Czechoslovakia). Chem. Listy, 1955, 49 (6), 854–857.—A rapid and sensitive method for the determination of V and Mo in the presence of each other, based on the formation of coloured complexes with catechol, is described. With V^{IV}, catechol gives a blue complex with max. extinction at 600 mμ, whilst with Mo an orange complex with max. at 430 mμ is formed. Iron, Ti and Mn interfere; Al in concn. > 20 mg per 50 ml must be masked with F'. *Determination of V and Mo in ores*—Evaporate the finely powdered sample (0·5 to 1 g) in a platinum dish with H_2SO_4 (1 + 1) (0·5 ml) and 40 per cent. HF (2 to 3 ml) to white fumes. Ignite the residue at a temp. ≯ 500° C to prevent loss of volatile MoO_3, then fuse it with $NaKCO_3$ (2 to 4 g), borax (0·5 to 1 g) and KNO_3 (a small crystal), digest the melt with hot H_2O, add a few drops of 3 per cent. H_2O_2, boil and filter. Wash the residue well, acidify the combined filtrates with

chem

1/2

Patrovský V.

HCl to methyl orange, destroy the indicator with a drop of bromine water, concentrate the soln., cool and dilute to 50 or 100 ml. Treat an aliquot (10 to 25 ml) with a saturated soln. of Na_2SO_3 (1 ml), and, after a few sec., with a 20 per cent. soln. of catechol in aq. ethanol (5 ml), followed by solid Na or ammonium acetate (1 to 2 g) and 10 per cent. NH_4F (0·5 to 1 ml). Dilute the soln. to 50 ml, and measure the extinction at 800 and 430 mμ for V and Mo, respectively. *Determination of V and Mo in steel*—Decompose the sample by fusion with Na_2O_2, boil with H_2O_2 to remove Mn, then proceed as above. Much Cr and W interferes.

G. GLASER

2/2

PM

L 46888-66 JP

ACC NR: AP6028173 (A) SOURCE CODE: CZ/0078/66/000/006/0014/0014

AUTHOR: Patrovsky, Vaclav; Chlumsky, Vaclav (Engineer; Plzen)

24

B

ORG: none

19

TITLE: Protective antithermal tube in nuclear reactor. CZ Pat. No. PV 10-65, Class 21

SOURCE: Vynalezy, no. 6, 1966, 14

TOPIC TAGS: nuclear reactor, reactor fuel element, thermal shock protection

ABSTRACT: A tube for protection against thermal shocks in a nuclear reactor channel system has been introduced. The tube, which is either fixed or detachable, is mounted on the end of the fuel element casing, where it can simultaneously serve to compensate for the neutron flux. [KP]

SUB CODE: 18/ SUBM DATE: 03Jan65/

Card 1/1

Analytical Chemistry of Rare Elements SOV/4759

for the analysis of the rare and dispersed elements. Most of the methods described here have been checked and verified in Czechoslovak research laboratories; the rest have been borrowed from Czechoslovak and foreign literature on analytical chemistry. The book consists of a general and a special part. The general part briefly describes systematic procedure in the analysis of the rare and dispersed elements, reviews present-day methods of chemical analysis, including those for the qualitative and quantitative analysis of the rare and dispersed elements in mineral stock and raw materials, and in several products of metallurgical processes. The special part contains a description of the most important natural compounds of each of the elements studied, and deals in detail with concentration methods and basic methods of qualitative and quantitative determinations. The author thanks Doctor V. Sykora. The editor of the Russian edition of the book thanks Yu. N. Knipovich and M. P. Belopol'skiy. There are 449 references, most of which are Czech, English, and German. The 38 Soviet references given encompass Soviet literature in the field to 1953. The balance of the references includes non-Soviet literature to 1955.

Card 2/11

PATROVSKY, Venceslav, inz.

Mutual influencing of the inductivity of transistor receiver parts. Sdel tech 11 no.9:349-350 S '63.

PATROVSKY, VENCESLAV

"Analyticka chemie vzacnych prvku. [Vyd. 1.] Praha, Statni nakl.technicke literatury, 1956. [Analytic chemistry of rare elements. 1st ed. illus., bibl., graphs, index, tables]."

p.167 (Praha, Czechoslavakia)

Monthly Index of East European Accession (EEAI) LC, Vol. 7, No. 8, August 1956

PATROVSKY, V.

"A new met·od of seperating and estimating rhenium. p. 1295."

P. 1295 (Chemicke Listy, Vol. 51, no. 7, July 1957, Praha, Czechoslovakia)

Monthly Index of East European Accessions (EEAI) LC, Vol. 7, No. 7, July 1958

Z/009/61/000/001/003/006
E112/E153

AUTHORS: Kroužek, E. and Patrovský, V.

TITLE: Analysis of Technical Germanium Dioxide

PERIODICAL: Chemický Průmysl, 1961, No.1, pp.24-26

TEXT: The main sources for the production of germanium are flue dusts and by-products of zinc ores, from which germanium can be separated as the easily volatile germanium tetrachloride. The redistilled germanium tetrachloride may be contaminated with arsenic trichloride. Germanium dioxide is isolated from the chloride by hydrolysis with superheated steam or by treatment with ammonia and the crude dioxide will then contain as impurities: chloride, ammonia, arsenic and water. The authors have developed a rapid method for the analysis of the different components of the germanium dioxide process, which they claim is very suitable for works control. Analysis of germanium by volumetric methods is based on the change of pH on the addition of pyrocatechol to a neutralised solution of germanium dioxide. Arsenic does not interfere in the reaction. Details of titration are: 0.1-0.2 g crude germanium dioxide are dissolved

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Z/009/61/000/001/003/006
E112/E153

Analysis of Technical Germanium Dioxide

by boiling in 100 ml distilled water. After complete solution, the solution is cooled and diluted with water to about 250 ml. The pH is adjusted to pH 5 by the addition of either NaOH or HCl. Control by pH-meter (indication by methyl red not accurate). 0.3 g of solid pyrocatechol are then added, with rapid stirring by means of an electromagnetic stirrer. The solution is titrated with 0,1N-NaOH to a pH 5 (on pH-meter).
1 ml 0,1 N-NaOH = 3.63 mg Ge = 5.25 mg GeO_2.
Of the gravimetric methods for the analysis of germanium, the authors have found the formation of salts from germanomolybdic acid the most promising. However, only the salts with 8-hydroxyquinoline gave reproducible results. The method is not recommended for quantities exceeding 3.5 g germanium. A photometric method was also studied and phenylfluorone, which gives a very sensitive red colouration, was confirmed as suitable reagent. The method is recommended for the analysis of flue dusts. Analyses for chlorine, ammonia and arsenic follow conventional lines. They were, however, conducted in order to

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E112/E153

Analysis of Technical Germanium Dioxide

establish whether germanium dioxide interfered with the analytical method. It was found that this was not the case. The three constituents were determined in a single sample of the solution as follows: Ammonia - Kjeldahl method; Chlorine - titration with silver nitrate in presence of sodium nitroprusside; Arsenic - iodometric titration (starch). Acknowledgements are expressed to Engineer Jan Staněk for supplying the required pure materials.

There are 6 references: 2 German, 2 English, 1 Czech and 1 Soviet.

ASSOCIATION: Ústav nerostných surovin, Praha
(Institute of Inorganic Raw Materials, Prague)

SUBMITTED: April 21, 1960

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Card 3/3

PATROVSKIY, Ventseslav [Patrovský, Věnceslav], inzh.; SAVKEVICH, S.S. [translator]; POPOV, N.P., nauchnyy red.; AFANAS'YEVA, Yu.N., red.izd-va; BYKOVA, V.V., tekhn.red.

[Analytical chemistry of the rare elements. Translated from the Czech] Analiticheskaia khimiia redkikh elementov. Pod red. N.P. Popova. Moskva, Gos.nauchno-tekhn.izd-vo lit-ry po geol. i okhrane nedr, 1960. 175 p. (MIRA 14:3)
(Metals, Rare and minor--Analysis)

HANZLIK, Jan; KLIK, Frantisek; [illegible]; [illegible]; [illegible], Vaclav;
ZBEHLIK, Josef

The experimental [illegible] Jaderna energie
13 no.11:396-397 N '67.

1. Institute of Nuclear Research of the Czechoslovak Academy
of Sciences, Rez near Prague [illegible]
V.I. Lenin [illegible]
[illegible] Energoprojekt [illegible]

PATROVSKY, V.

Contribuion to the photometric determination of gold by the extraction of bromoaurate (III). Coll Cz Chem 27 no.7:1705-1708 Jl '62.

1. Institut fur mineralische Rohstoffe, Prag.

CZECHOSLOVAKIA/Analytic Chemistry. Analysis of Inorganic E
Substances.

Abs Jour: Ref Zhur-Khim., No 23, 1958, 77256.

Author : Patrovský, Venceslav.
Inst :
Title : Application of Chelates to Chemical Analysis. LIII. Photometric Determination of Niobium and Tantalum Using Pyrocatechin and Ethylenediaminetetraacetic Acid.

Orig Pub: Chem. listy, 1958, 52, No 2, 255-261.

Abstract: The earlier described photometric method (Tomicek O., Jerman L., Chem. listy, 1952, 46, 144) was modified for the determination of Ta, and an analogous method for Nb determination was developed. These methods are based on the formation of colored

Card : 1/4

CZECHOSLOVAKIA/Analytic Chemistry. Analysis of Inorganic E
Substances.

Abs Jour: Ref Zhur-Khim., No 23, 1958, 77256.

Ta and Nb chelates with pyrocatechin (I) and ethylenediaminetetraacetic acid (II) at pH = 2.5. The measurement of the light absorption by the yellow Ta chelate with I is carried out at about 400 mμ (violet light filter), and that of the red Nb chelate with I is carried out at 470 mμ (blue light filter). The composition of both the chelates is expressed by the ratio Ta (Nb) : II = 1 : 1. The chelates are produced only at a 4,000-fold excess of I; the intensity of their color strongly depends on the concentration of I. Tiron, pyrogallol, gallic acid, 1,2-dioxynaphthalene and chromotropic acid behave similarly in respect to Ta and Nb. The presence of II is especially advantageous due to the fact that II sequesters

Card : 2/4

VeNcesl AV [illegible]

C

[illegible]

PATROVSKY, V. : HUKA, M.

"Complexometric titrations (chelatometry). XXII. Volumetric analysis of iron, aluminum, and titanium in silicates. Remarks on the complexometric analysis of calcium of magnesium. In German."

p. 37 (Journal on chemistry and biochemistry - Czechoslovak Academy of Science)
Vol. 22, No. 1, Feb. 1957

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

PATROVSKY, V.

"Useof complexones in chemical analysis. LII. Detection of boron, germanium, niobium, and tantalum by Pyrocatechol Violet."

p. 968 (Institute of Applied Physics - Czechosolovak Academy of Science)
Vol. 51, No. 5, May 1957

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

Applications of pyrocatechol in photometric analysis. Venceslav Petrovský (Ústřední ústav geol., Prague) [illegible]

PATROVSKY, VENCESLAV

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Complexometric titrations (chelatometry). XXI. Volumetric determination of iron, aluminum, and titanium in silicates. Note on the chelatometric determination of calcium and magnesium. [illegible] and Miroslav Hüka [illegible] 1109-12 (1959) [illegible] contg. Fe, Al, and Ti in [illegible] titration with 0.1 M complexon (di-Na salt of [illegible]) at 40-50° and pH [illegible] by using sulfosalicylic acid as indicator. Then a slight excess of I is added [illegible] small amt. of AcONa to bring the pH to 4 [illegible] soln. is allowed to stand 5-10 min., cooled, a few drops of 0.1% aq. Catechol Violet (II) added, and, in case the soln. turns blue or green, 0.1 M I is added to obtain a yellow color. The soln. is then treated with [illegible] hexamethylenetetramine (III) and with 5% NH4OH [illegible] The excessive I is titrated with [illegible] which gives the sum of [illegible] in another [illegible] decomp. [illegible]

[illegible] residue [illegible] by using [illegible] removal of Mn must be [illegible] by using IV [illegible] and Mg [illegible] the [illegible] and with [illegible] XXII [illegible] Miroslav [illegible] and [illegible]

[illegible] Miroslav Hoka

[illegible] [illegible] Malát, and Václav Suk (Karlova Univ., Prague). [illegible] 1113-15. Pyrogallol Red (IV) and Bromopyrogallol Red (V) were [illegible] metric detn. of Pb [illegible] in solns. of Na [illegible] IV + V in [illegible] soln. of Pb [illegible] EtOH [illegible] for the blue-violet to bright [illegible] detn. of Pb in alloys after sepg. Pb as PbSO4 and dissolving it in a soln. prepd. by mixing 150 ml. 25% NH_4OH with 200 ml. AcOH and 150 ml. H_2O. [illegible] the sample is dissolved in warm concd. H_2SO_4, allowed to cool, dild. with H_2O to 200 ml., treated with 2 g. tartaric acid, heated, and the ppt. of $PbSO_4$ filtered off. In the case of larger amts. of Sb, the sample is dissolved in concd. HCl, evapd. with H_2SO_4 [illegible] as above.

M. Hudlický

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54. **Use of morin in chemical analysis. II. Volumetric determination of gallium and indium with complexone III.** V. Patrovsky (*Chem. Listy*, 1953, 47 [9], 1338-1341).—~~Gallium and~~ indium are determined by titration with complexone III in the presence of morin; the end-point is indicated by the disappearance of the characteristic fluorescence of the complex of morin with Ga and In in acetic acid soln. Interference by Al is suppressed by the addition of F′ or BF_4', which extinguish the fluorescence of the Al - morin complex. Ga in bauxite and silicates is determined as follows. Fuse the finely-powdered sample (5 to 10 g) with 5 times its weight of Na_2CO_3, extract the melt with hot water, remove any SiO_2, acidify the extract with HCl and evaporate until crystallisation of NaCl begins. Cool, add an equal vol. of conc. HCl, filter off NaCl and $AlCl_3$ crystals. To the filtrate, add a little $Na_2S_2O_3$ to reduce Fe^{III}, and extract with 2 portions of ether. Dry the extract containing $GaCl_3$ over anhyd. Na_2SO_4, evaporate to dryness, mix the residue with Na acetate (2 g), NaCl (2 g) and glacial acetic acid (1 ml), dil. to 50 ml, add 0·1 per cent. ethanolic soln. of morin (0·5 ml) and 2 ml of a soln. prepared by dissolving borax (1·8 g) and NaF (3·2 g) in water, acidifying with acetic acid and diluting to 100 ml. Titrate with 0·01 *M* complexone III in u.v. light. Indium is determined similarly. A detailed method for the determination of indium in sphalerite is given. G. Glaser

PATROVSKY, V.

Isolation and determination of small amounts of indium with sodium diethyldithiocarbamate. Václav Patrovský (Výzkumný ústav kovů, Panenské Břežany, Czech.). Chem. Listy 48, 1047-50(1954).—$Et_2NCSSNa$ (I) quantitatively ppts. In at pH 7-11. Detn. of In in the presence of large excesses of Sn, Sb, Zn, Fe, and Cu requires special procedures. To det. In in ores contg. Zn and Fe, a 5-20-g. sample is decompd. with aqua regia, HCl, or by fusing. The resulting soln. is evapd. with 10-30 ml. concd. H_2SO_4, the soln. is cooled and dild. to a H_2SO_4 concn. of 5-8%, the SiO_2 and $PbSO_4$ are removed, and the acidity is brought to pH 1 with NH_3. The Fe is reduced with the required amt. of $Na_2S_2O_3$, the soln. is boiled to sep. sulfides of Cu, Bi, Sb, Ag, and Pb, $C_6H_{12}N_4$ is added (pH 6), the soln. is boiled, and the ppt. is filtered with suction, washed with warm water, dissolved in HCl, boiled after addn. of $KClO_3$, pptd. with I in the presence of CN^- and tartrate, and transformed to oxide. From ores contg. Sn and W, Sn must be removed prior to detn. of In. M. Hudlický