"APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001652720016-1

DRYAPACHENKO, B., inzh. (g.Dnepropetrovsk); SPIVAKOVSKIY, M., mekhanik; RASYUK, A.; NOSACH, V., master (g.Konotop)

Suggested, created, introduced. Izobr. i rats. no. 5:22-23 My '61. (MIRA 14:5)

1. Upravleniye mekhanizatsii no. 19, g. Khabarovsk (for Spivakovskiy).
2. Predsedatel' soveta Vsesoyuznogo obshchestva izobretateley i ratsionalizatorov zavoda "Krasnyy metallist," g.Konotop (for Rasyuk).

(Technological innovations)

APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001652720016-1"

"APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001652720016-1

SPIVAKOVSKIY, N.D.

CA

15

**The influence of different forms of nitrogen on the growth of apple trees and the formation of fruit buds.** N. D. Spivakovskii. *Doklady Vsesoyuz. Akad. Sel'skoKhoz. Nauk im. V. I. Lenina* 14, No. 2, 25-8(1949). In the soils of the chernozem belt, pH 6.1 in KCl ext., $NH_4$ stimulates vegetative growth. It is also conducive to branching in the second half of the summer. Nitrates are responsible for greater formation of fruit buds. The leaves of the upper portion of the branches in plants receiving $NH_4$ show a higher content of sucrose. On the other hand the leaves of plants receiving nitrate contain more K and P. I. S. Joffe

Cand. Agric. Sci.

All-Union Inst. Fruit Cultivation.

ASM SLA METALLURGICAL LITERATURE CLASSIFICATION

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"APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001652720016-1

SPIVAKOVSKIY, N. D.

Agriculture

(Fertilizer for fruit and berry plants) Moskva, Gos. Izd-vo sel'khoz. lit-ry, 1951.

Monthly List of Russian Accessions, Library of Congress, July 1952. Unclassified.

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"APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001652720016-1

SHIMAKOVSKIY, N. D.

Fertilizers and Manures

Use of fecal fertilizers in orchards. Sad i og. No. 2, 1953.

9. Monthly List of Russian Accessions, Library of Congress, June 1953. Unclassified.

APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001652720016-1"

"APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001652720016-1

SPIVAKOVSKIY, Naum Davidovich

Sci-Res Inst of Horticulture imeni Michurin, Academic degree of Doctor of Agricultural Sciences, based on his defense, 16 November 1954, in the Council of the Leningrad Agricultural Inst, of his dissertation entitled: "Fertilizing fruit and berry crops".

Academic degree and/or title: Doctor of Sciences

SO: Decisions of VAK, List no. 9, 16 April 55, Byulleten' MVO SSSR, No. 14, Jul 56, Moscow, pp 4-22, Uncl. JPRS/NY-429

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"APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001652720016-1

SPIVAKOVSKIY, N.D., red.

[Program and methods instructions for cultivation experiments with fruits and berries] Programmno-metodicheskie ukazaniia po agrotekhnicheskim opytam s plodovymi i iagodnymi kul'turami. Michurinsk, Nauchno-issl.in-t sadovodstva im. I.V.Michurina, 1956. 183 p. (MIRA 12:11)

(Fruit culture)

APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001652720016-1"

"APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001652720016-1

SPIVAKOVSKIY, N.D.

[Orchards on the "Zavet Il'icha" Collective Farm] Sady kolkhoza "Zavet Il'icha." Moskva, M-vo selkhoz. RSFSR, 1957. 18 p.
(Fruit culture) (MIRA 12:3)

APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001652720016-1"

"APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001652720016-1

SPIVAKOVSKIY, Nauk Davidovich, doktor sel'skokhozyaystvennykh nauk, professor; KATSNEL'SON, S.M., redaktor; GUBIN, M.I., tekhnicheskiy redaktor

[Agricultural practices for good orchard yields] Agrotekhnika vysokikh urozhaev v plodovykh sadakh. Predstavlena Obshchestvom po rasprostraneniiu politicheskikh i nauchnykh znanii RSFSR. Moskva, Izd-vo "Znanie," 1957. 31 p. (Vsesoiuznoe obshchestvo po rasprostraneniiu politicheskikh i nauchnykh znanii. Ser.5, no.2) (MLRA 10:3)
(Fruit culture)

APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001652720016-1"

"APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001652720016-1

USSR / Cultivated Plants. Fruits, Berries, Nutbearing, Teas. M-6

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6395

Author : Spivakovs'kiy, N.
Inst : Not given
Title : Basic Soil Cultivation and Fertilization in Orchards

Orig Pub : Vinogradarstvo i sadovodstvo Kryma., 1958, No 2, 18-21

Abstract : Keeping of orchards under turf accumulated over many years is the main reason for the poor state of trees in orchards and their low yield. Recommendations on the plowing of sod and on a regular system of soil cultivation are given.

Card 1/1

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"APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001652720016-1

SPIVAKOVSKIY, Naum Davidovich; SERGEYEV, V.I., red.; GUREVICH, M.M., tekhn. red.

[Fertilizing fruit and berry cultures] Udobrenie plodovykh i iagodnykh kul'tur. Izd.2., ispr. i dop. Moskva, Sel'khozizdat, 1962. 359 p. (MIRA 15:7)

(Fertilizers and manures)

APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001652720016-1"

"APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001652720016-1

~~SPIVAKOVSKIY, V.B.~~

SPIVAKOVSKIY, V.B.

3

Indate solutions. N. V. Aksel'rud and V. B. Spivakovskii. *Zhur. Neorg. Khim.* 1, 1996–2004(1956).—In alk. solns. (1–5 *N* NaOH) it is demonstrated polarographically that In exists as $[In(OH)_4]^-$. This ion may polymerize by adding on $In(OH)_3$ units. Polymerization is favored by increase in In concn. (0.0001–0.005*M*) or decrease in alky. The rate of decompn. of the indate ion was followed polarographically at varying In and NaOH concns. for 3 hrs. The decompn. rate was much more rapid in 2*N* NaOH than at 3*N* or 4*N*. Possible mechanisms for the indate decompn. process are discussed.

C. H. Fuchsman

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Inst. Gen. & Inorg. Chem., AS USSR

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"APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001652720016-1

SPIVAKOVSKIY, V.B

5

7 27

Polarographic determination of indium. N. V. Aksel'rud and V. B. Spivakovskii (Inst. Gen. and Inorg. Chem., Acad. Sci. Ukr.S.S.R., Kiev). *Zhur. Anal. Khim.* 12, 78-82(1957).—In the outlined method In is detd. polarographically with 4*M* KBr as auxiliary electrolyte. A soln. of a sample is evapd. to almost dryness, thereby partly removing As, Se, and Tl. The residue is dild. with $H_2O$, boiled, and filtered to remove Si, Pb, and partly Sn. The filtrate is heated and to it is added powd. ZnO which displaces In in soln. The ppt. is filtered off, dissolved in 1:1 HCl, Al is added to oxidize $Fe^{++}$ and remove As, the soln. is cooled, KBr is added, and In is detd. polarographically. If the In:Cd ratio does not exceed 1:200, pptn. of In with ZnO can be omitted. M. Hosch

4E2c
4E4j

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"APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001652720016-1

AKSEL'RUD, N.V.; SPIVAKOVSKIY, V.B.

Studying the basic salts and hydroxides of metals. Report No.1.
Zhur. neorg. khim. 2 no.12:2709-2715 D '57. (MIRA 11:2)

1. Institut obshchey i neorganicheskoy khimii AN USSR.
(Salts) (Hydroxides)

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"APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001652720016-1

SPIVAKOVSKIY, V.B.

SPIVAKOVSKIY V. B.

5(4)

AUTHORS: Vasil'yev, V. P., Korableva, V. D., Yatsimirskiy, K. B. SOV/153-58-3-30/50

TITLE: Conference Discussion on the Methods of Investigating the Complex Formation in Solutions (Soveshchaniye-diskussiya po metodam izucheniya kompleksoobrazovaniya v rastvorakh)

PERIODICAL: Izvestiya vysshikh uchebnykh zavedeniy. Khimiya i khimicheskaya tekhnologiya, 1958, Nr 3, pp 173 - 174 (USSR)

ABSTRACT: From February 18 to 21, 1958 a conference discussion took place at the town of Ivanovo; it dealt with the subjects mentioned in the title. It was called on a decision of the VIIth All-Union Conference on the Chemistry of Complex Formations. More than 200 persons attended the conference, among them 103 delegates from various towns of the USSR. At the conference methods of determining the composition of the complexes in solutions were discussed, as well as the methods of calculating the instability constants according to experimental data and problems concerning the influence of the solvent upon the processes of complex formation. [illegible]. In the lecture by A. K. Babko and M. M. Tananayko, "Physical and Chemical Analysis of the Systems With 3 Colored Complexes in the Solution", the results of a systematic investigation in copper-quinoline-salicylate, as well as in copper-pyridine-salicylate systems by means of the optical method were dealt with. In the lecture by Ya. A. Fialkov the idea of a further investigation of the complex formation processes in solutions was developed. Besides the determination of the composition and stability of the complexes also the physical and chemical properties, the chemical nature and the structure of the complex compounds must be investigated . . . . . .

Card 2/16

I. I. Alekseyeva and K. B. Yatsimirskiy in their lecture "Investigation of the Polymerization of Iso-Poly Acids in Solutions" mentioned experimental results of the investigation of the polymerization in solutions of molybdic acid. The authors proved that especially the molybdic acid within a certain range of the pH values and the concentrations exists as a number of compounds that can be expressed by an overall formula $MoO_4(HMoO_4)^{n-2}$. In the lecture by N. V. Aksel'rud and V. B. Spivakovskiy investigation results on basic salts taking into account the complex formation in solutions by means of the potentiometric method were mentioned for systems with zinc, cadmium and indium. In the evaluation of their results the authors employed the method of the table difference. The calculation of the consecutive constants was carried out according to the interpolation formula by Newton. M. A. Chepelevtskiy held a lecture on "pH Measurement Method of the Solutions in Combination With the System Analysis of the Solubility Diagram of the System $Cu^{2+}$-HCl - $H_2O$ in Investigating Complex Copper Compounds in Saturated Solutions". It was found that the substance at the bottom of the liquid is more basic than the solution; furthermore, the increased acidity of the solution from the viewpoint of the formation of hydroxy-chloro complexes in the solution was explained. V. I. Kuznetsov opened the discussion with his lecture; he pointed out the necessity of utilizing the concepts worked out in the investigations of the polymerization in organic chemistry in the chemistry of polynuclear complexes. A. A. Grinberg thinks that the new approach of the hydrolysis

Card 4/16

Card 5/16

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investigation as developed by the Scandinavian school is of high value. He also pointed to the necessity of studying the kinetics of the polymerization process and a quantitative determination of the strength of the polymers. A. K. Babko pointed out that the study of the polymer structure was necessary. N. P. Komar' mentioned in his lecture that the rather widely spread polymerization type according to the scheme "nucleus + chain members" is not obtained in all cases. The following scientists took part in the discussion: V. N. Tolmachev, A. V. Ablov, I. S. Mustafin, I. V. Tananayev and K. B. Yatsimirskiy. A. K. Babko then discussed in his lecture "Methods of Determining the Dissociation Constant of the Complex Groups in Solutions" the main principles of determining the instability constants. N. P. Komar' discussed in his lecture "Calculation Methods of the Instability Constants of the Complex Compounds According to Experimental Data" the possibilities of using the known calculation methods of the instability constants for various cases of the complex formation in solution. If several mononuclear complexes are formed the displacement method by Abegg and Bodlender (completed by

Card 6/16

A. K. Babko) cannot be recommended for the calculation of the instability constant. The lecturer discussed the dissolution methods of the polynomials proposed by B'yerrum, Leden, Rossotti, Sketchard, Edsolloy and other authors. The constants calculated in this way are not very accurate. It was proved that the method of successive approximations can lead to wrong conclusions as to the chemical processes taking place in the system investigated. The most probable value of the physical constants can be obtained by the method of the least squares. B. V. Ptitsyn, Ye. N. Tekster and L. I. Vinogradova described the determination methods of the instability constants of the oxalate complexes of niobium, uranium and iron which are based on the investigation of the equilibrium displacement of the complex formation by silver ions. N. K. Bol'shakova, I. V. Tananayev and G. S. Savchenko held a lecture on "The Role of the Time Factor in the Investigation of the Complex Formation". In the discussion on the lectures A. A. Grinberg mentioned that due to the slow adjustment of the equilibria the methods discussed of

Card 7/16

determining the instability constants (palladium and cobalt complexes) can often not be employed. A. V. Ablov pointed out the necessity of devising direct methods of proving the existence of intermediate forms in a step-wise complex formation. K. B. Yatsimirskiy mentioned that the instability constants of slowly dissociating complexes can be calculated from thermochemical data. L. P. Adamovich, A. M. Colub among others took part in the discussion on the lectures. A. K. Babko requested inclusion in the next conference on the chemistry of complex compounds a lecture in which various calculation methods of the instability constants should be discussed by the example of actual cases. This should clarify to which divergencies of the values of the constants different methods of evaluating the experimental data can lead. N. P. Komar' stressed that in the determination of the instability constants all chemical equilibria should be taken into account that render complex the complex formation process in the solution, especially the hydrolysis processes of the central ion and the addendum. In the lecture delivered by V. M. Peshkova and A. P. Zozulya "Application of the Distribution Method to the Investigation of the Stability Constants

Card 8/16

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of Some Thorium Complex Compounds" results obtained from the experimental investigation of the distribution of thorium compounds in the systems: acetylacetone - benzene - water, and 2-oxy-1,4,-naphthoquinone - chloroform - water were given. From these data the instability constants of the thorium complexes with acetyl-acetone and 2-oxy-1,4-naphthoquinone were calculated. I. V. Tananayev, G. S. Savchenko and Ye. V. Goncharov held a lecture on the application of the solubility method in the determination of the stability of complex compounds in solutions. In this lecture also other methods of investigating complex formation processes in the solution were discussed (pH measurement, measurement of the optical density, as well as of the heat of mixing). B. D. Berezin held a lecture on the "Application of the Solubility Method in Studying the Phthalocyanine Complexes of Metals". He used the determined quantitative characteristics of the reaction of the transition of the phthalocyanides of cobalt, nickel, copper and zinc, as well as of the free phthalocyanine into the sulfuric acid solution for the theoretical reasoning, and as an experimental proof of the existence of

Card 9/16

$\pi$-bonds in the complexes investigated. These characteristics also served him as a proof of new electronic formulae of phthalocyanine and its complex derivatives. In the lecture delivered by I. L. Krupatkin on "The Method of the Two Solvents as a Method of Investigating the Formation and Properties of Organic Complexes" it was proved that this method makes it possible to determine the number of complexes formed in the system, their composition and relative stability. V. I. Kuznetsov, A. K. Babko, N. P. Komar', I. S. Mustafin and Ya. I. Tur'yan took part in this discussion. In the lecture delivered by A. A. Grinberg and S. P. Kiseleva on the complex palladium compounds (II) with a coordination number above four it was proved that in the case of a large chlorine and bromine ion excess complexes with the coordination number 5 are formed. The instability constants of these complexes were estimated. L. P. Adamovich mentioned a new manipulation in the spectrophotometric investigation of the complex compounds that can be used in systems with the formation (or predomination) of one single complex. This method makes it possible to determine the composition and instability constant

Card 10/16

of the complex. In the lecture delivered by K. B. Yatsimirskiy and V. D. Korableva the application of the theory of crystalline fields for the determination of the composition and structure of the chloride complexes of cobalt, nickel and copper according to the absorption spectra of these complexes was discussed. It was proved that in a hydrochloric acid concentration above 5 mole/liter in the solution there exists an equilibrium between the tetrahedric and octahedric form of the cobalt chloro complexes. Yu. P. Nazarenko proved in his lecture "The Application of Radioactive Isotopes in the Investigation of the Solvation Equilibrium in Solutions of Complex Compounds" the possibility of using data on the isotope exchange to clarify the structure of the complex and mechanism of the hydration processes. V. Klimov mentioned in his lecture the use of radioactive isotopes in the study of tin and antimony complexes in non-aqueous solutions. A. V. Ablov, V. K. Tolmachev, V. I. Kuznetsov and A. M. Golub took part in the discussion of the lectures. The usefulness of employing the theory of the crystalline fields in explaining the results obtained from the absorption spectra of the com-

Card 11/16

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plex compounds was stressed. In the lecture delivered by I. A. Shek on "The Investigation of the Complex Formation by the Method of the Dielectric Permeability and the Polarization" the principles of the methods mentioned were presented. This method was employed for investigating the compounds of the type of the "affiliation" products. The lecture delivered by I. A. Shek and Ye. Ye. Kriss "Employing the Method of the Dielectric Constant for Investigating Complex Compounds of the Type of Crystal Solvates in Solutions" dealt with the investigation of the solvates of lanthanum and cerium chlorides with ketones, as well as with the study of the compounds formed in heterogeneous systems with tributyl phosphate and nitric acid. V. F. Toropova gave in her lecture "The Polarographic Method of Investigating the Complex Formation in Solutions" a survey of the applications of the polarographic method in the study of the complex compounds, and illustrated several fine characteristic features of this method. In the lecture delivered by T. N. Sumarokova "The Cryoscopic Method of Investigating the Complex Formation Reactions" a survey of the possibilities of the cryoscopic method was given, and its applicability in the study of several complex compounds of stannic chloride with organic substances was proved. A. M. Golub described the results of his investigations of thiocyanate complexes of several metals. A vivid discussion took place on the lectures held. Ya. A. Fialkov and Yu. Ya. Fialkov considered the cryoscopic method of investigating complex compounds to be of considerable value. K. B. Yatsimirskiy pointed out that the publication of the surveys on individual methods of investigating the complex formation reactions would be desired; this concerns especially the polarographic method. The cryoscopic method should be brought to a level that makes the calculation of the equilibrium constants of the processes to be investigated possible. The problem of the method of evaluating the experimental results becomes more and more important. Many scientists use the instability constants without taking into account the way in which they had been obtained. The calculation methods employed by A. M. Golub are one step back, as compared to those employed at present. In his lecture N. P. Komar' pointed out the extremely great importance of the mathematical evaluation of the results obtained, as well as of the plotting of curves. A. K. Babko suggested selecting one or two systems that are experimentally well investigated, and to evaluate the results obtained according to different methods so that it is possible to check and evaluate them. Ya. I. Tur'yan took part in the discussion. Ya. A. Fialkov discussed in his lecture "The Effect of the Solvent on the Complex Formation Process as Well as on the State of Equilibrium in the Solutions of Complex Compounds" the influence exerted by the solvents upon the molecular state, upon the solvation of the system components, upon the stabilization of the complexes formed in the system, upon the step-wise dissociation of the complexes and upon a number of other processes. The influence exercised by the dielectric constant upon the complex formation process was discussed. It was concluded that a direct relation does not exist, and that the chemical nature of the solvent must be taken into account. A. V. Ablov and L. V. Nagarova held a lecture on "The Spectroscopic Investigation of Nickel Cobalt 'Pyridinates' in Various Solvents". The instability constants of the complexes were determined and it was proved that the







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stability of the 'pyridinates' is changed in dependence on the solvent. Ya. I. Tur'yan in his lecture "The Influence of the Solvent Upon the Composition and Stability of Complex Ions" discussed the polarographic investigation method of the chloride and thiocyanate complexes of lead in aqueous ethanol solutions at different content of the non-aqueous solvent and at a constant ionic strength. A step-wise character of the complex formation was found as well as the instability constants of the complexes. The influence of the dielectric constant of the solution on the stability of the investigated complexes was proved. In the lecture by V. P. Vasil'yev on the "Investigation of Aquo Complexes in Mixed Solvents" the main attention was devoted to the necessity of the qualitative recording of the solvation effects in the complex formation. The applicability of the polarographic method in the determination of the composition and stability of the aquo complexes in mixed solvents was proved and experimental material on the thermodynamics of the dissociation of the cadmium-aquo complexes in aqueous ethanol solutions was mentioned. V. N. Tolmachev, V. I. Kuznetsov

Card 15/16

and I. V. Tananayev stressed in their lectures the necessity of a more complete and general investigation of the solvation processes. A. K. Babko and A. M. Golub pointed out the great importance of the investigations of the complex formation equilibria in non-aqueous solutions, and made several critical comments on the lecture by Ya. I. Tur'yan. The following scientists took part in this discussion: L. P. Adamovich, O. I. Khotyanovskiy, A. P. Moskvin and A. G. Mustakhev. At the final meeting of the conference A. A. Grimberg, Corresponding Member, AS USSR, said in his speech that such a conference was very urgent. A detailed discussion of the determination methods of the composition of the complexes, as well as of the method used in the study of the quantitative characteristics of the stepwise complex formation was extremely useful for all who attended this conference.

Card 16/16
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"APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001652720016-1

Spivakovskiy, V. B.

78-2-3/43

AUTHORS: Aksel'rud, N. V., Spivakovskiy, V. B.

TITLE: Investigations of Basic Salts and Hydroxides of Metals (Izucheniye osnovnykh soley i gidrookisey metallov). II. Basic Chloride and Hydroxide of Zinc (II. Osnovnyye khloridy i gidrookis'tsinka).

PERIODICAL: Zhurnal Neorganicheskoy Khimii, 1958, Vol. 3, Nr 2, pp. 269-277 (USSR).

ABSTRACT: The composition and activity of the precipitat were investigated with the aid of a variation of the potentiometric method. A small quantity of NaOH is added to an excess of $ZnCl_2$-solution as well in the absence as in the presence of various NaCl-concentrations. The ionic activity of zinc is potentiometrically determined by a zinc electrode and the activity of chlorine by an AgCl-electrode. The pH-value is determined with a glass-electrode with an accuracy of 0,01 pH. The following basic salts were isolated: $Zn(OH)_{1,5}Cl_{0,5}$ and $Zn_2(OH)_3Cl$. The mean value of the activity product was for the basic zinc salt $Zn(OH)_{1,5}Cl_{0,5} = 4.10^{-4}$ and for $Zn_2(OH)_3Cl = 1,6.10^{-27}$. It was found that the pH-value decreases with an increase in the

Card 1/2

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Investigations of Basic Salts and Hydroxides of Metals. 78-2-3/43
II. Basic Chloride and Hydroxide of Zinc.

ionic activity of zinc and chlorine. The increase in the concentrations of chlorine-ions has an abnormal influence upon the pH-value of the system. At first, on a slight increase in the concentration of chlorine ions, the pH-value of the solution decreases, on a further increase in the concentration of chlorine ions the pH-value again increases. The precipitates of the basic zinc salts age and after 78 hours the basic salt is converted to hydroxide with a product of solubility $L = 0,14.10^{-7}$. There are 8 figures, 3 tables, and 15 references, 4 of which are Slavic.

ASSOCIATION: Institute for General and Anorganic Chemistry AS Ukrainian SSR (Institut obshchey i neorganicheskoy khimii AN USSR).

SUBMITTED: March 26, 1957

AVAILABLE: Library of Congress

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"APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001652720016-1

AUTHORS: Aksel'rud, N. V., Spivakovskiy, V. B. SOV/78-3-8-6/48

TITLE: Investigation of the Basic Salts and of the Metallic Hydroxides (Izucheniye osnovnykh soley i gidrookisey metallov) III. Basic Cadmiumchlorides (III. Osnovnyye khloridy kadmiya)

PERIODICAL: Zhurnal neorganicheskoy khimii, 1958, Vol. 3, Nr 8, pp. 1748-1754 (USSR)

ABSTRACT: For the determination of the composition and of the product of activities of the basic chlorides as well as for the investigation of the change of these chlorides by the aging process the potentiometric method was applied. The system $Cd^{2+}$-OH'-Cl'-$H_2O$ was examined. The following compounds have been found: $Cd(OH)_{0,75} \cdot Cl_{1,25}$, $Cd_4(OH)_3Cl_5$ and CdOHCl. At low pH values and active cadmium CdOHCl precipitates first. If the pH value is increased and the activity of the cadmium decreased $Cd(OH)_{0,75} \cdot Cl_{1,25}$ precipitates. The formation of precipitates in concentrated cadmium solutions under addition of a small excess was studied. The aging process of the

Card 1/2

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precipitates was investigated after 150 hours and the change of the composition of the precipitates was traced. Also the product of activities and the isothermal potentials with the formation of basic cadmiumchloride were calculated. The product of activities of $Cd(OH)_{0,75} \cdot Cl_{1,25}$ is $1,3 \cdot 10^{-9}$, $\Delta Z^{o} = -12,14$ kcal/mol, of $CdOHCl = 2,0 \cdot 10^{-11}$, $\Delta Z^{o} = -14,59$ kcal/mol. The composition of the sediment precipitated from cadmium solutions by means of alkali at a constant chlorine concentration was investigated.
There are 7 figures, 3 tables, and 21 references, 5 of which are Soviet.

ASSOCIATION: Institut obshchey i neorganicheskoy khimii Akademii nauk SSSR (Institute of General and Inorganic Chemistry, AS USSR)

SUBMITTED: July 8, 1957

Card 2/2

APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001652720016-1"

"APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001652720016-1

AUTHORS: Spivakovskiy, V. B., Aksel'rud, N.V. 32-3-48/52

TITLE: An Attachment to a Potentiometer for Exact pH Measuring With a Glass Electrode (Pristavka k potentsiometru dlya tochnogo izmereniya pH steklyannym elektrodom)

PERIODICAL: Zavodskaya Laboratoriya, 1958, Vol. 24, Nr 3, pp. 374-374 (USSR)

ABSTRACT: The attachment recommended permits a considerable increase of measuring accuracy and is able, in conjunction with the potentiometer of the type ППТВ -1 and a galvanometer with a sensitivity of $1 \cdot 10^{-9}$ a/mm, to carry out exact measurements of up to 0,01 pH with a glass electrode (thickness of glass wall 0,1-0,5 mm). It may be seen from a schematical drawing that a change-over switch in connection with a controllable resistance by a change-over and regulating process uses a connected potentiometer as a compensator of the measured potential differences by "calibration" of the galvanometer. The arrangement of this intensifier attachment, which is connected to a 6Ж1Ж tube, is shown in form of a schematical drawing.

Card 1/2

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32-3-48/52

An Attachment to a Potentiometer for Exact pH Measuring With a Glass Electrode.

Three pocket torch batteries connected in series serve as a source of anode voltage. Glow voltage is obtained from an accumulator or from dry batteries. There are 2 figures.

ASSOCIATION: Institute of General and Inorganic Chemistry, AS Ukrainian SSR (Institut obshchey i neorganicheskoy khimii Akademii nauk USSR)

AVAILABLE: Library of Congress

1. Acid-Measurement 2. Glass electrode-Application

Card 2/2

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"APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001652720016-1

5(4)

AUTHORS: Aksel'rud, N. V., Spivakovskiy, V. B. SOV/76-32-10-16/39

TITLE: An Estimation of the Ionic Activities in the Solutions of Mixtures of Chlorides With Sodium Chloride (Otsenka aktivnostey ionov v smesi rastvorov khloridov s khloristym natriyem)

PERIODICAL: Zhurnal fizicheskoy khimii, 1958, Vol 32, Nr 10, pp 2333 - 2338 (USSR)

ABSTRACT: L'yuis (Ref 1) found that in a diluted solution of strong electrolytes of the same type of valence the activity coefficient of every single electrolyte depends only on the general concentration. This rule holds, however, only with infinitely diluted solutions. Under real conditions there are higher concentrations. In the present case an estimation of the cation activity and the mean activity coefficient of chloride solutions without NaCl was attempted. The systems $ZnCl_2$-NaCl, $CdCl_2$-NaCl and $InCl_3$-NaCl were synthesized and their cation activity was directly measured by amalgam

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dropping electrodes ( those of the chlorine ions with a silver chloride electrode). The measurements were carried out in the thermostat at $25 \pm 0,1^{\circ}$ . The diagrams obtained show that the mean inclination of the straight line of the function $\log \gamma_{\pm}$ ($\gamma_{\pm}$ = activity coefficient of the electrolytes) versus $\log c_M$ for the metals investigated is $k = 0,05 \pm 0,01$. A diagram $\gamma_{\pm} = f(\lg c_{Cl^-})$ for various chlorides and their mixtures with NaCl was plotted for determining the value k. If the mean activity coefficients of a number of $MCl_n$ concentrations are known the activity coefficients of the metal ion in the solution mixture $MCl_n$ and NaCl can be calculated. In this way the mean activity coefficients of the chlorides of zinc, cadmium, indium and of hydrochloric acid in the mixture with NaCl were calculated. In the mixture HCl+NaCl a correction of the Debye (Debay) limit ($\lg c_{Cl^-} = -0,7$) was carried out. From a diagram it may



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Estimation of the Ionic Activities in the Solutions of Mixtures of Chlorides With Sodium Chloride SOV/76-32-10-16/39

be seen that the experimental values agree well with those calculated. There are 5 figures, 3 tables, and 2 references, 2 of which are Soviet.

ASSOCIATION: Institut obshchey i neorganicheskoy khimii AN USSR (Institute of General and Inorganic Chemistry, AS UkrSSR)

SUBMITTED: May 10, 1957

Card 3/3

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"APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001652720016-1

5(2) SOV/78-4-1-12/48

AUTHORS: Aksel'rud, N. V., Spivakovskiy, V. B.

TITLE: IV. Investigation of the Basic Chloride and Hydroxide of Cerium (IV. Izucheniye osnovnogo khlorida i gidrookisi tseriya)

PERIODICAL: Zhurnal neorganicheskoy khimii, 1959, Vol 4, Nr 1, pp 56-61 (USSR)

ABSTRACT: The basic salts and hydroxides of cerium were investigated by the potentiometric method. On the precipitation of cerium hydroxide from solutions containing chlorine ions (~3 mol/l) a compound of the following composition is formed: $Ce(OH)_{2.33}Cl_{0.67}$. On a concentration of chlorine in a solution of 0.03 mol/l only hydroxide is formed. At lg $a_{Cl^-}$ = +0.1, 0.0, and -0.2 the basic salt of the composition $Ce(OH)_{2.33}Cl_{0.67}$ is formed. At lg $a_{Cl^-}$ = -0.7 cerium hydroxide is formed. The dependence of pH on lg $a_{Ce^{3+}}$ and lg $a_{Cl}$ in the heterogeneous system was investigated and is shown in figures 3 and 4. The composition of the precipitate was found by the inclination of the straight line. The results concerning the

Card 1/2

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IV. Investigation of the Basic Chloride and Hydroxide of Cerium

SOV/78-4-1-12/48

composition of the precipitate obtained by the potentiometric method were compared to the results obtained by the solubility method. The results were in good accordance with each other. The activity product and the isobaric-isothermal potential of the formation of basic cerium chloride and cerium hydroxide were determined. There are 4 figures, 3 tables, and 18 references, 7 of which are Soviet.

ASSOCIATION: Institut obshchey i neorganicheskoy khimii Akademii nauk USSR (Institute of General and Inorganic Chemistry of the Academy of Sciences, UkrSSR)

SUBMITTED: October 2, 1957

Card 2/2

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"APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001652720016-1

5(4)

AUTHORS: Spivakovskiy, V. B., Yermolenko, V. I. SOV/78-4-3-12/34

TITLE: The Use of Electrodes of the Third Type for Investigating Complex Compounds (Primeneniye elektrodov tret'yego roda dlya izucheniya kompleksnykh soyedineniy)

PERIODICAL: Zhurnal neorganicheskoy khimii, 1959, Vol 4, Nr 3, pp 559 - 563 (USSR)

ABSTRACT: The complexing process has been investigated by the potentiometric method, using electrodes of the third type. For this purpose metal electrodes $Me/Me(OH)n,H_2O,H^+$ were subordinated to the electrodes of the third type. The electrode $H_2/H_2O,Me(OH)n,Me^{n+}$, which is negative relative to the metal oxide electrode, was used for investigating the complex formation. This type of electrode is applicable only in $p_H$-ranges in which the metal forms insoluble hydroxydes. In investigating the complex compound in the solution the activity of the complex and of the addenda of the ion to be

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investigated must be taken into account. In investigating the complex formation with the electrode of the third type the initial concentration of the complexing agent is known and the concentration of the metal in the solution can be determined by analysis. The activity of the metal ions is determined potentiometrically. The activity of the zinc, lanthanum and yttrium ions was measured with the aid of the electrodes $H_2/H_2O,Zn(OH)_2,Zn^{2+}$; $H_2/H_2O,La(OH)_3,La^{3+}$ and $H_2/H_2O,Y(OH)_3,Y^{3+}$. The results are shown in tables 1, 2, and 3. There are 3 tables and 6 references, 2 of which are Soviet.

ASSOCIATION: Institut obshchey i neorganicheskoy khimii Akademii nauk USSR (Institute of General and Inorganic Chemistry of the Academy of Sciences, UkrSSR)

SUBMITTED: December 24, 1957

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"APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001652720016-1

5(2) SOV/78-4-5-9/46

AUTHORS: Aksel'rud, N. V., Spivakovskiy, V. B.

TITLE: The Basic Chlorides and Hydroxides of Indium (Osnovnyye khloridy i gidrookis' indiya)

PERIODICAL: Zhurnal neorganicheskoy khimii, 1959, Vol 4, Nr 5, pp 989-996 (USSR)

ABSTRACT: The heterogeneous equilibrium in the system $In^{3+}$-$OH^-$-$Cl^-$-$H_2O$ which has not yet been dealt with in publications (see references 1-7), was investigated within a wider concentration interval of the indium and chlorine-ions, and the basic chloride and hydroxide formed was determined by means of the potentiometric method at 25±0.1°. The activity of the indium ions was determined by means of the amalgamated indium drop-electrode, and that of the chlorine ions by means of the silver chloride electrode. Potentiometric determinations were carried out on the glass electrode. The results obtained by the equilibrium conditions in the heterogeneous system $In^{3+}$-$OH^-$-$Cl^-$-$H_2O$ are given by table 1, according to which the diagrams (Figs 1, 2) are drawn. By the addition of NaOH into a solution of indium

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chloride $In(OH)_{1.5}Cl_{1.5}$ is first formed. The changes with respect to precipitation and composition, and the activity product were investigated after 78 days (Table 2, Figs 3, 4, 5, 6). After this time the precipitation has the composition $In(OH)_{1.5}Cl_{1.5}$, $In(OH)_{1.75}Cl_{1.25}$ and $In(OH)_3$. The first compound was observed in the case of $\log a_{Cl^-}$ of from +0.20 to -0.30 . The compound is formed by the addition of alkali lye after 5 minutes, and its composition undergoes no change after 78 days. The compound $In(OH)_{1.75}Cl_{1.25}$ forms at $\log a_{Cl^-}$ from -0.70 to -1.00. With a reduction of the activity of the indium- and chlorine ions indium hydroxide is formed. The activity product of $In(OH)_{1.5}Cl_{1.5}$ is dependent on the chlorine ions in the solution. With a reduction of chlorine-ion activity the activity product of the basic chloride decreases. At $\log a_{Cl^-} = +0.20$ the activity product $In(OH)_{1.5}Cl_{1.5} = 2.0 \cdot 10^{-21}$, at $\log a_{Cl^-} = -1.00 = 1.8 \cdot 10^{-21}$. The dependence of the $\lg L_{In(OH)_{1.5}Cl_{1.5}}$ on $\log a_{Cl^-}$ for freshly precipitated



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precipitates as represented by figure 7 shows a straight line. The activity product and the isobaric-isothermal potentials of the formation of the basic chloride and indium hydroxide was determined (Table 3). The average value for lg $L_{In(OH)_{1.5}Cl_{1.5}}$ after 78 hours is $4.2.10^{-23}$. The activity product of indium hydroxide amounts to $1.2.10^{-37}$ 78 hours after precipitation. This value is lower by 4% than the values mentioned in publications. Moeller (Ref 6) gives a value of about $10^{-33}$ for the solubility product of $In(OH)_3$. There are 7 figures, 3 tables, and 15 references, 8 of which are Soviet.

ASSOCIATION: Institut obshchey i neorganicheskoy khimii Akademii nauk USSR (Institute of General and Inorganic Chemistry of the Academy of Sciences, UkrSSR)

SUBMITTED: January 30, 1958



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"APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001652720016-1

5(2) SOV/78-4-7-8/44

AUTHORS: Fialkov, Ya. A. (Deceased), Spivakovskiy, V. B.

TITLE: The Influence of Ions Which Are in the External Coordination Sphere Upon the Complex Formation Between Cadmium and Chlorine Ions in an Aqueous Solution (Vliyaniye ionov, nakhodyashchikhsya vo vneshney koordinatsionnoy sfere, na kompleksoobrazovaniya mezhdu ionami kadmiya i khlora v vodnom rastvore)

PERIODICAL: Zhurnal neorganicheskoy khimii, 1959, Vol 4, Nr 7, pp 1501-1506 (USSR)

ABSTRACT: The influence mentioned in the title was investigated in the presence of LiCl, NaCl, KCl, RbCl and $NH_4Cl$. The activity of chlorine ions was measured by means of a calomel electrode, that of the cadmium ions was measured potentiometrically. The results obtained are given by table 1. The concentration of the cadmium ions in the case of all experiments amounted to $6.15 \cdot 10^{-3}$ mol/l. The values of $\frac{1}{\psi}$ given in the table were calculated according to the formula: $\frac{1}{\psi} = \frac{0.0615 - a_{Cd^{2+}}}{a_{Cd^{2+}}}$

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($a_{Cd^{2+}}$ = activity of Cd-ions, 0.0615 = concentration of Cd-ions). Figure 1 shows the dependence of $\log \gamma$ on $\log a_{Cl}$. The influence of the ions of the outer range upon the stability of the dissolved complexes corresponds to the well-known results obtained for crystalline complex compounds. In both cases stability decreases in the order Rb - Li. Table 2 gives the calculated instability constants for the chloride complex of cadmium. In the presence of lithium ions the maximum coordination number of the investigated complex was 3, in the presence of Na, $NH_4$ and K it was 4, and in the presence of Rb it was 6. The fact that the instability constant depends on the chemical nature of the ion of the outer range leads to the assumption that it also depends on its concentration. In some cases, a comparison of the strength of the bond according to the value of the instability constant is therefore uncertain. At high concentrations it is better to compare the degree of binding of cadmium in the complex immediately according to the value of $\frac{1}{\gamma}$. Table 3 and figure 2 show the dependence of $\log \frac{1}{\gamma}$



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SOV/78-4-7-8/44

The Influence of Ions Which Are in the External Coordination Sphere Upon the Complex Formation Between Cadmium and Chlorine Ions in an Aqueous Solution

on the radius of the ion of the outer range. The complex-forming influence of the $NH_4$-ion is between that of Na and that of K, and not between K and Rb, as would correspond to its radius. Here the difference between the chemical nature of this ion and that of the alkali metals manifests itself. There are 2 figures, 3 tables, and 6 references, 5 of which are Soviet.

ASSOCIATION: Institut obshchey i neorganicheskoy khimii Akademii nauk USSR (Institute of General and Inorganic Chemistry of the Academy of Sciences, UkrSSR)

SUBMITTED: January 20, 1959

Card 3/3

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"APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001652720016-1

AKSEL'RUD, N.V.; SPIVAKOVSKIY, V.B.

Solubility product and solubility. Ukr.khim.zhur. 25 no.1:14-17 '59. (MIRA 12:4)

1. Institut obshchey i neorganicheskoy khimii AN USSR.
(Solubility)

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SHIVAKOVSKIY, V. B., Cand Chem Sci -- (diss) "A Study of Several Heterogenous Systems of the Type $M^{III}$+ -- OH -- Cl -- $H_2O$." Kishinev, 1960, 19 pp, (Ministry of Higher and Secondary Specialist Education USSR; Ministry of Education Moldavian SSR; Kishinev State Univ) 125 copies, no price listed, list of the author's works at end of text (15 entries) (KL, 21-60, 119)

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S/078/60/005/02/015/045
B004/B016

AUTHORS: Aksel'rud, N. V., Spivakovskiy, V. B.

TITLE: The Basic Chlorides and the Hydroxides of Yttrium and Lanthanum

PERIODICAL: Zhurnal neorganicheskoy khimii, 1960, Vol 5, Nr 2, pp 327-339 (USSR)

ABSTRACT: The authors investigated by means of the potentiometric method the activity coefficients of the cation, anion and hydroxyl group in the systems $La^{3+} - OH^- - Cl^- - H_2O$ and $Y^{3+} - OH^- - Cl^- - H_2O$. Each time two series of solutions with different concentrations of the metal ion were prepared. In one of the series, pH and the activity coefficients of the ions were determined 40 (30) and 166 (125) days after preparation, in the other series 5 min and 65 (100) days after preparation. (The figures in parentheses concern the systems with yttrium). The tables give the equilibria of the systems (Tables 1,3,6,8), the activity coefficients (Tables 2,4,7,9), the activity products and isobaric potentials of the basic chlorides and of the hydroxides (Tables 5,10). Graphic illustrations (Figs 1-11) show the equilibrium concentrations, the dependence of pH on

Card 1/2

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The Basic Chlorides and the Hydroxides of Yttrium and Lanthanum

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B004/B016

the log of the activity coefficient of the cation in fresh solution and after several days. The following precipitates were found to be formed: $La(OH)_2Cl$ (from freshly formed solution), $La(OH)_{2.5}Cl_{0.5}$ (after 65 d), $La(OH)_3$ (after 166 d), $Y(OH)_{1.75}Cl_{1.25}$ (from freshly formed solution), $Y(OH)_2Cl$ (after 30 d), $Y(OH)_{2.5}Cl_{0.5}$ (after 100 d), $Y(OH)_3$ (after 125 d). Table 11 compares the solubility products found by the authors for $La(OH)_3$ and $Y(OH)_3$ with the values obtained by other research workers, among them I. M. Korenman, I. I. Mironov, and A. I. Odnosevtsev. There are 11 figures, 11 tables, and 16 references, 8 of which are Soviet.

ASSOCIATION: Institut obshchey i neorganicheskoy khimii Akademii nauk USSR (Institute of General and Inorganic Chemistry of the Academy of Sciences of the UkrSSR)

SUBMITTED: December 26, 1957

Card 2/2

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S/078/60/005/02/016/045
B004/B016

AUTHORS: Aksel'rud, N. V., Spivakovskiy, V. B.

TITLE: The Basic Chloride and the Hydroxide of Samarium

PERIODICAL: Zhurnal neorganicheskoy khimii, 1960, Vol 5, Nr 2, pp 340-347 (USSR)

ABSTRACT: The authors investigated the system $Sm^{3+}$ - $OH^-$ - $Cl^-$ - $H_2O$. Series of solutions with constant Sm concentration and varying Cl concentration were prepared. The precipitation of the basic salts and hydroxides, respectively, was carried out by addition of NaOH. After 5 min, the pH was measured by means of a PPTV-1 potentiometer and amplifier with 6Zh1Zh tube, and the activity coefficient of $Cl^-$ determined. The Sm concentration was determined colorimetrically. The determinations were repeated after 33 and 85 days. The measurement results are presented in tables, and also graphed. In freshly prepared solutions, a precipitate of $Sm(OH)_2Cl$ is formed which has been transformed into $Sm(OH)_3$ after one month. The activity products and the isobaric potentials of formation were determined

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The Basic Chloride and the Hydroxide of Samarium

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(Table 3). The activity product of the precipitates depends on the activity of $Cl^-$. After prolonged standing, this dependence becomes less pronounced. The author quotes I. V. Tananayev. There are 10 figures, 3 tables, and 8 Soviet references.

ASSOCIATION: Institut obshchey i neorganicheskoy khimii Akademii nauk USSR (Institute of General and Inorganic Chemistry of the Academy of Sciences, UkrSSR)

SUBMITTED: October 6, 1958

Card 2/2

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S/078/60/005/02/017/045
B004/B016

AUTHORS: Aksel'rud, N. V., Spivakovskiy, V. B.

TITLE: The Basic Chlorides and the Hydroxide of Dysprosium

PERIODICAL: Zhurnal neorganicheskoy khimii, 1960, Vol 5, Nr 2, pp 348-355 (USSR)

ABSTRACT: The authors determined the composition and the activity products of the basic salts and hydroxides of various rare earths by means of the method of measuring three variables: determination of the activity of the metal ion, the activity of the anion, and the pH of the solution. Since a direct measuring of the activity of Dy is difficult, it was determined from the equation (1), which defines a relation between the activity coefficient of $DyCl_3$ in a solution containing NaCl and the activity coefficient of $DyCl_3$ in pure solution. For this purpose, the dependence of the activity coefficient of $DyCl_3$ on the concentration had to be known. The authors therefore investigated the dependence of the activity coefficients of the rare earths on their ionic radii. The activity coefficients of the chlorides of those metals, for which at this time no data are available,

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The Basic Chlorides and the Hydroxide of Dysprosium

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B004/B016

can be determined by means of the results presented in figure 1. The activity coefficient of $DyCl_3$ was set equal to the known activity coefficient of $YCl_3$ because of the same ionic radii. The system $Dy^{3+} - OH^- - Cl^- - H_2O$ was investigated. The measurements were made 5 min and 50 days after the preparation of the solutions. The results are given in tables 1-3 and figures 1-9. The precipitate in the freshly prepared solution contains the following basic chlorides: $Dy(OH)_{1.75}Cl_{1.25}$, $Dy(OH)_2Cl$, and $Dy(OH)_{2.5}Cl_{0.5}$. After long standing, $Dy(OH)_3$ is formed. There are 3 figures, 9 tables, and 6 references, 5 of which are Soviet.

ASSOCIATION: Institut obshchey i neorganicheskoy khimii Akademii nauk USSR (Institute of General and Inorganic Chemistry of the Academy of Sciences, UkrSSR)

SUBMITTED: October 26, 1958

Card 2/2

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69046

AUTHORS: Aksel'rud, N. V., Spivakovskiy, V. B.

S/078/60/005/03/008/048
B004/B002

TITLE: Basic Chlorides of Erbium and Ytterbium

PERIODICAL: Zhurnal neorganicheskoy khimii, 1960, Vol 5, Nr 3, pp 547 - 557 (USSR)

ABSTRACT: The authors investigated composition and activity product of difficultly soluble compounds precipitating during the reaction of Er and Yb chlorides with caustic soda in the presence of sodium chloride, according to the three-variable method. The investigation was carried out in the thermostat at 25°. The activity of chlorine ions was measured by means of silver chloride or calomel electrodes. The pH was determined by means of a glass electrode and potentiometer of the type PPTV-1. Since no data have been published on the activity coefficients of $ErCl_3$ and $YbCl_3$ in concentrated and aqueous solutions, the authors applied their own results described in reference 5, namely, that the activity coefficients of the chlorides of rare earths may be classified according to their ion radii in a continuous curve. The values of the activity coefficients thus obtained, are given by table 1 and figure 1. For determining the surface corresponding to the conditions of the heterogeneous equilibrium of

Card 1/3

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69046

Basic Chlorides of Erbium and Ytterbium

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B004/B002

the system in the coordinates log $a_{M^{3+}}$, pH, log $a_{A^{m-}}$, several series of solutions in equilibrium with the precipitation, were investigated. The concentration of Er and Yb was kept constant and that of Cl was varied by an addition of NaCl. After a slight precipitation of NaOh, pH and log $a_{Cl^-}$ were determined and this determination was repeated after 50 days. The results of the system $Er^{3+}$ - $OH^-$ - $Cl^-$ - $H_2O$ are given by table 2. After 50 days a change was only observed as to pH. On the basis of these data, the isoconcentrates were represented by an orthogonal projection shown in figure 2, from them the dependence of log $a_{Er^{3+}}$ on pH was determined, and from the gradient of the straight lines (Fig 3), the composition of the precipitation was found to be $Er(OH)_2Cl$. Figures 4,5 show that the data are the same after 50 days, and that in the meantime the basic chloride $Er(OH)_{2.5}Cl_{0.5}$ developed. Figures 6,7 show the dependence of log $a_{Er^{3+}}$ on the pH in fresh solutions and after

Card 2/3

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69046

Basic Chlorides of Erbium and Ytterbium

S/078/60/005/03/008/048
B004/B002

50 days. Table 4 gives the activity products of both basic salts. The data of the system $Yb^{3+} - OH^- - Cl^- - H_2O$ are shown in the same way by tables 5 - 7, figures 8 - 13. Also in this case the salt $Yb(OH)_{2.5}Cl_{0.5}$ developed after 50 days. The activity products are also given as to $Er(OH)_{2.5}Cl_{0.5} = 1.3.10^{-22}$ and $Yb(OH)_{2.5}Cl_{0.5} = 7.9.10^{-23}$. There are 13 figures, 7 tables, and 6 references, 5 of which are Soviet.

ASSOCIATION: Institut obshchey i neorganicheskoy khimii Akademii nauk USSR (Institute of General and Inorganic Chemistry of the Academy of Sciences, UkrSSR)

SUBMITTED: February 10, 1959

Card 3/3

APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001652720016-1"

"APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001652720016-1

SPIVAKOVSKIY, V.B.; ZIMINA, V.A.; GAVRILYUK, L.S.

Determination of uranium traces in rocks and natural waters. Zav. lab. 27 no. 4:390-391 '61. (MIRA 14:4)

1. Kiyevskiy gosudarstvennyy universitet imeni T.G. Shevchenko.
(Uranium--Analysis) (Rocks--Analysis)
(Mineral waters)

APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001652720016-1"

"APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001652720016-1

ZAKHVATKIN, M.O.; SAPIR, A.D.; SPIVAKOVSKIY, V.B.; ZIMINA, V.A.; MARGOLIS, L.D.

Exchange of experience. Zav.lab. 28 no.3:290 '62. (MIRA 15:4)

1. Chelyabinskiy metallurgicheskiy zavod (for Zakhvatkin, Sapir).
2. Kiyevskiy gosudarstvennyy universitet (for Spivakovskiy, Zimina).
3. Dneprovskiy alyuminiyevyy zavod imeni S.M.Kirova (for Margolis).
(Metallurgical analysis)

APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001652720016-1"

"APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001652720016-1

SPIVAKOVSKIY, V.B.

Amount of the sample in gravimetric and volumetric analysis.
Sbor.nauch.rab.Kiev.un. no.1:117-121 '63.
(MIRA 18:11)

APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001652720016-1"

"APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001652720016-1

SPIVAKOVSKIY, V.B.; LEVINA, R.L.

Rapid complexonometric determination of calcium and magnesium in silicates. Ukr. khim.zhur. 29. no.9:978-981 '63. (MIRA 17:4)

1. Kiyevskiy gosudarstvennyy universitet im. T.G.Shevchenko.

APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001652720016-1"

"APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001652720016-1

SPIVAKOVSKIY, V.B.; MOYSA, L.P.

Basic cadmium bromides and cadmium hydroxide. Zhur. neorg. khim. 9 no.10:2287-2294 O '64. (MIRA 17:12)

1. Kiyevskiy gosudarstvennyy universitet im. T.G. Shevchenko.

APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001652720016-1"

"APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001652720016-1

SPIVAKOVSKIY, V.B.; MAKOVSKAYA, G.V.

Complex formation of (III) with pyrophosphate. Zhur. neorg. khim. 10 no.5:1062-1068 My '65. (MIRA 18:6)

1. Kiyevskiy gosudarstvennyy universitet imeni Shevchenko.

APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001652720016-1"

"APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001652720016-1

SPIYN, I. and IPPOLITOVA, E. A.

"Research on Titanium Phosphate," Agitator's Notebook No. 3, 1951, and Journal of Analytical Chemistry, Vol. 6, No. 1

APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001652720016-1"

"APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001652720016-1

SPIZEK, J.; MALEK, I.; DOLEZILOVA, Libuse; VONDRACEK, M.; VANEK, Z.

Metabolites of Streptomyces noursei. Part IV and V. Folia microbiol. 10 no.5:259-266 S ' 65.

1. Department of Biogenesis of Natural Products Institute of Microbiology, Czechoslovak Academy of Sciences, Prague 4, and Antibiotics Research Institute, Roztoky near Prague. Submitted August 3, 1964.

APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001652720016-1"

"APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001652720016-1

SPIZHARNYY, Nikolay Nikolayevich; KAMYSHEV, Vasiliy Grigor'yevich; FIROV, Ivan Anan'yevich; LIKHOVIDOV, N.K., red.; POLUNICHEV, I.A., red.izd-va; PROKOF'YEVA, L.N., tekhn.red.

[Questions and answers on problems of the application in lumbering industry of the principal regulations of labor legislation] Konsul'tatsii po voprosam primeneniia v lesnoi promyshlennosti osnovnykh polozhenii trudovogo zakonodatel'-stva. Moskva, Goslesbumizdat, 1959. 133 p. (MIRA 12:11)
(Lumbering) (Labor laws and legislation)

APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001652720016-1"

"APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001652720016-1

POKROVSKAYA, A.S., kand.med.nauk; SPIZHARSKAYA, L.M., nauchnyy sotrudnik

Treatment of chronic bacillary dysentery with transfusion of bacterial blood. Akt.vop.perel.krovi no.4:25-27 '55. (MIRA 13:1)

1. Bakteriologicheskaya laboratoriya Leningradskogo instituta pereli-vaniya krovi (nauchnyye rukovoditeli raboty - chleny korrespondenty AMN SSSR prof. A.N. Filatov i prof. Ye.S. Gurevich).
(DYSENTERY) (BLOOD AS FOOD OR MEDICINE)

APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001652720016-1"

"APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001652720016-1

SPIZHARSKAYA, L.M.

Detection of donots possessing a natural immunity to coccal infections. Akt.vop.perel.krovi no.4:32-34 '55. (MIRA 13:1)

1. Bakteriologicheskaya laboratoriya Leningradskogo instituta pereli-vaniya krovi (zav. laboratoriyey - starshiy nauchnyy sotrudnik T.A. Krotova).

(BLOOD DONORS) (COCCAL INFECTIONS)

APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001652720016-1"

"APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001652720016-1

SPIZHARSKAYA, L.M.

Significance of a method for determining the activity of aldolase in mass selection of donors. Probl.gemat.i perel.krovi no.6:50-51 '61. (MIRA 14:10)

1. Iz donorskogo otdela (rukovoditel' - prof. L.G. Bogomolova) Leningradskogo ordena Trudovogo Krasnogo Znameni nauchno-issledovatel'skogo instituta perelivaniya krovi (dir. - dotsent A.D. Belyakov, nauchnyy rukovoditel' - chlen-korrespondent AMN SSSR prof. A.N. Filatov).
(BLOOD DONORS) (ALDOLASE) (HEPATITIS, INFECTIOUS)

APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001652720016-1"

"APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001652720016-1

SPIZHARSKAYA, L.M.; MAMYSHEVA, T.K.

Possibility of utilizing cadaver bone marrow in clinical practice. Probl. gemat i perel. krovi 6 no.2:42-46 '61. (MIRA 14:2)

(MARROW--TRANSPLANTATION) (CADAVER )

APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001652720016-1"

"APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001652720016-1

L 17650-65 AMD

ACCESSION NR: AR4045759 S/0299/64/000/013/M015/M015

SOURCE: Ref. zh. Biologiya. Svodnyy tom, Abs. 13M96

AUTHOR: Spizharskaya, L. M.

B

TITLE: Certain morphofunctional investigations of posthumous bone marrow cells in the process of preservation

CITED SOURCE: Sb. 3 Vses. konferentsiya po peresadke tkaney i organov, 1963. Yerevan, 1963, 235-236

TOPIC TAGS: bone marrow, preservation, bone marrow preservation, phagocyte, granule formation, hemopoiesis, human, cadaver, donor

TRANSLATION: Cell phagocyte activity, granule formation capacity, and hematological data of hemopoietic bone marrow cells were investigated in tests of samples taken from 170 cadavers. Bone marrow from 120 donors served as a control. Phagocyte activity was not high (although the index was sometimes 10) and depended on the conditions under which bone marrow was obtained and preserved; phagocyte activity decreased simultaneously with cell damage.

Card 1/2

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L 17650-65
ACCESSION NR: AR4045759

O

Granule formation capacity was preserved in a small percentage of cases for 3 weeks. Pathological changes started immediately after death. The nucleus bearing bone marrow cells taken from cadavers and donors were preserved for almost the same length of time. Better results were obtained for bone marrow cells preserved under conditions of 4°C in a Henk's solution at a pH 7.4 to 7.7 diluted 1:1 with an anticoagulant added. Intraosseous bone marrow transfusions to patients with systemic blood diseases produced favorable results.

SUB CODE: LS ENCL: 00

Card 2/2

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"APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001652720016-1

SPIZHARSKAYA, L.M.

Some morphologic and functional studies on cadaver bone marrow cells during preservation. Probl. gemat. i perel. krovi no.6:44-47 '65. (MIRA 18:11)

1. Leningradskiy ordena Trudovogo Krasnogo Znameni nauchno-issledovatel'skiy institut perelivaniya krovi (dir. - dotsent A.D.Belyakov).

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SOV/51-4-6-11/24

AUTHORS: Gerasimov, F.M., Tel'tevskiy, I.A., Naumov, S.S., Spizharskiy, S.N. and Nesmelov, S.V.

TITLE: Diffraction Gratings from the State Optical Institute (Difraktsionnyye reshetki Gosudarstvennogo Opticheskogo Instituta)

PERIODICAL: Optika i Spektroskopiya, 1958, Vol IV, Nr 6, pp 779-790 (USSR)

ABSTRACT: The present paper describes briefly the technique of preparation of optical diffraction gratings at the State Optical Institute imeni S.I. Vavilov and discusses in detail the optical characteristics of these gratings in the ultraviolet, visible and near infrared spectral regions. The technique of preparation of gratings was fully described in References 1, 2. Echelette gratings for the wavelengths 2.5-600 μ were described in a paper presented at the Xth All-Union Conference on Spectroscopy (Ref 3). The gratings are prepared by means of a screw-motion ruling machine (Fig 1) which can produce gratings of 150 x 150 mm area with 1200, 600, 300 and 200 lines/mm. This machine does not differ from the majority of machines decribed in literature. Figs 2 and 3 show certain details of the carriage of the ruling machine at the Institute. A typical profile of a diffraction grating is shown in Fig 4. The lower part of the figure shows

Card 1/2

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SOV/51-4-6-11/24

Diffraction Gratings from the State Optical Institute

an electron microscope image of a grating with 1200 lines/mm. The optical characteristics of the gratings produced are discussed as well as the sources of certain errors. The resolving power of better gratings reaches 600 000. The relative intensity of Rowland's "ghosts" in the first order of gratings with 600 lines/mm is about 0.1%, and in better gratings it may be only 0.01%. The gratings of the State Optical Institute produce a high concentration of light in a given direction. Thus gratings with a step-like profile, with a slope of the working edge of 5-10°, concentrate in the maximum up to 85% of the total reflected light, which is near the theoretical limit. A characteristic change in the polarization properties of gratings was observed in the region of the maximum light concentration. On the short-wavelength side of the maximum the component with electric vector vibrations parallel to the grating lines is the more intense, and on the long-wavelength side of the maximum the component with electric vector vibrations perpendicular to the grating lines is stronger (Fig 10). There are 10 figures and 17 references, 8 of which are Soviet, 4 English, 3 American, 1 German and 1 translation of a Western work into Russian.

Card 2/2

ASSOCIATION: Gosudarstvennyy Opticheskiy Institut im. S.I. Vavilova (State Optical Institute imeni S.I. Vavilov)

SUBMITTED: January 17, 1958

APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001652720016-1"

"APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001652720016-1

[illegible], T. [illegible].

Some data on the geomorphology of Frants Iosif Land. Trudy Arkt Inst Vol. 41, 1936

So: Trudy Arkticheskogo Nauchno-Issledovatel'skogo Instituta, GUSMP, Council of Ministers, Vol 201, 1948.

APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001652720016-1"

"APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001652720016-1

[illegible], [illegible]

Quarternary deposits of the Lena-Indigirk area. Problemy Arktiki No. 11, 1940.

So: Trudy Arkticheskogo Nauchno-Issledovatel'skogo Instituta, GUSMP, Council of Ministers, Vol 201, 1948

APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001652720016-1"

"APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001652720016-1

SPIZHARSKIY, T.N.; MOLDAVSKIY, M.L.; LESGAFT, A.V.

New data on the stratigraphy and age of Biryusa Paleozoic sediments. Mat. VSEGEI Ob. ser. no.8:67-69 '48. (MIRA 11:4)
(Biryusa Valley--Geology, Stratigraphic)

APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001652720016-1"

"APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001652720016-1

APRODOV, V.A. [author]; SPIZHARSKIY, T.N. [reviewer].

"Geological mapping." V.A.Aprodov. Reviewed by T.N.Spizharskii. Sov. kniga no.8:19-21 Ag '53. (MLRA 6:8)

(Geology--Maps) (Aprodov, V.A.)

APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001652720016-1"

"APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001652720016-1

BOCH, S.G.; GRUSHEVOY, V.G.; DZEVANOVSKIY, Yu.K.; ZORICHEVA, A.I., IVANOV, A.A.; KUREK, N.N.; LIEROVICH, L.S.; MOROZENKO, N.K.; NEKHOROSHEV, V.P.; RUSANOV, B.S.; SPIZHARSKIY, T.N.; SHABAROV, N.V.; SHATALOV, Ye.T., redaktor; DZEVANOVSKIY, Yu.K., redaktor; KRASNIKOV, V.I., redaktor; MIRLIN, G.A., redaktor; RUSANOV, B.S., redaktor; SEMENOVA, M.V., redaktor; GUROVA, O.A., tekhnicheskiy redaktor.

[Instruction for compiling and preparing for publication the state geological map of the U.S.S.R., and the map of the mineral resources of the U.S.S.R.Scale 1:1000000] Instruktsiia po sostavleniiu i podgotovke k izdaniiu gosudarstvennoi geologicheskoi karty SSSR i karty poleznykh iskopaemykh SSSR. Masshtaba 1:1000000. Moskva, Gos. nauchno-tekhn. izd-vo lit-ry po geologii i okhrane nedr, 1955. 52 p., tables of symbols, maps [Microfilm] (MLRA 9:6)

1. Russia (1923- U.S.S.R.) Ministerstvo geologii i okhrany nedr. (Geology--Maps)

APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001652720016-1"

"APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001652720016-1

KRISHTOFOVICH, A.N., redaktor [deceased] SPIZHARSKIY, T.N., redaktor; BELYAYEVSKIY, N.A., redaktor; VADRANYANTS, L.A., redaktor; ZAITSEV, I.K., redaktor; KRASNOV, I.I., redaktor; KULIKOV, M.V. redaktor; LABAZIN, G.S., redaktor; LIBROVICH, L.S., redaktor; LUR'YE, M.L., redaktor; MALINOVSKIY, F.M., redaktor; NESTEROV, L.Ya., redaktor; NEKHOROSHEV, V.P., redaktor; SERGIYEVSKIY, V.M redaktor; TALDYKIN, S.I., redaktor; KHABAKOV, A.V., redaktor; SHABAROV, N.V., redaktor; SKVORTSOV, V.P., redaktor; KISELEVA, A.A., tekhnicheskiy redaktor GUROVA, O.A., tekhnicheskiy redaktor.

[Geological dictionary] Geologicheskii slovar'. Moskva, Gos. nauchno-tekhn.izd-vo lit-ry po geologii i okhrane nedr.Vol.1 A-L 1955.402 p. (MLRA 8:10)

(Geology--Dictionaries)

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"APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001652720016-1

KRISHTOFOVICH, A.N., redaktor [deceased]; SPIZHARSKIY, T.N., otvetstvennyy redaktor; SKVORTSOV, V.P., redaktor izdatel'stva; POPOV, N.D., tekhnicheskiy redaktor

[Geological dictionary] Geologicheskii slovar'. Moskva, Gos. nauchno-tekhn. izd-vo lit-ry po geol. i okhrane nedr. Vol.2. M - IA. 1955. 445 p. (MIRA 9:8)

(Geology--Dictionaries)
(Russian language--Dictionaries)

APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001652720016-1"

"APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001652720016-1

SPIZHARSKIY, T.N.

Age of volcanogenous formations of the Siberian Platform. Mat. VSEGEI no.7: 133-140 '55. (MLRA 10:4)
(Siberian Platform--Volcanic ash, tuff, etc.)

APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001652720016-1"

"APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001652720016-1

LIKHAREV, B.K., glavnyy redaktor; LIBROVICH, L.S., redaktor; MODZALEVSKAYA, Ye.A., redaktor; NALIVKIN, D.V., redaktor; OVECHKIN, N.K., redaktor; ROTAY, A.P., redaktor; SPIZHARSKIY, T.N., redaktor; SKVORTSOV, V.P., redaktor izdatel'stva; GUROVA, O.A., tekhnicheskiy redaktor

[Stratigraphic dictionary of the U.S.S.R.] Stratigraficheskii slovar' SSSR. Moskva, Gos. nauchno-tekhn. izd-vo lit-ry po geol. i okhrane nedr, 1956. 1282 p. (MLRA 10:2)

1. Leningrad. Vsesoyuznyy geologicheskiy institut.
(Geology, Stratigraphic--Dictionaries)

APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001652720016-1"

"APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001652720016-1

SPIZHARSKIY, T.N.

The lower boundary of the Paleozoic. Inform. sbor. VSEGEI no.4: 10-15 '56. (MLRA 10:4)
(Geology, Stratigraphic)

APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001652720016-1"

"APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001652720016-1

SPIZHARSKIY, T.N.

MELESHCHENKO, V.S.; SAKS, V.N.; SPIZHARSKIY, T.N.; FOMICHEV, V.D.

Interdepartmental meeting on developing unified stratigraphic systems for Siberia. Inform. sbor. VSEGEI no.4:31-37 '56. (Siberia--Geology, Stratigraphic) (MLRA 10:4)

APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001652720016-1"

"APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001652720016-1

SPIZHARSKIY, T.N., red.; TOLSTIKHINA, M.A., red.; BODYLEVSKIY, V.I., red.; BOCH, S.G., red.[deceased]; VASILENKO, V.K., red.; DODIN, A.L., red.; DOMRACHEV, S.M., red.; KRASNOV, I.I., red.; MELESHCHENKO, V.S, red.; MENNER, V.V., red.; NIKIFOROVA, O.I., red.; OBRUCHEV, S.V., red.; RZHONSNITSKAYA, M.A., red.; ROSTOVTSEV, N.N., red; SAKS, V.N., red.; SARYCHEVA, T.G., red.; FOMICHEV, V.L., red; CHERNYSHEVA, N.Ye., red.; YAKOVLEV, S.A., red.; RAGINA, G.M., vedushchiy red.; YASHCHURZHINSKAYA, A.B., tekhn.red.

[Proceeding of the Interdepartmental Conference on the Development of a Unified System for the Stratigraphy of Siberia; reports on the stratigraphy of Mesozoic and Ceinozoic deposits] Trudy Mezhvedomstvennogo soveshchaniia po razrabotke unifitsirovannykh stratigraficheskikh skhem Sibiri; doklady po stratigrafii mezozoiskikh i kainosoiskikh otlozhenii. Leningrad, Gos.nauchno-tekhn.izd-vo neft. i gorno-toplivnoi lit-ry, Leningr. otd-nie, 1957. 575 p. (MIRA 11:6)

1. Mezhvedomstvennoye soveshchaniye po razrabotke unifitsirovannykh stratigraficheskikh skhem Sibiri. Leningrad, 1956. 2. Vsesoyuznyy geologicheskiy nauchno-issledovatel'skiy institut (for Spizharskiy, Tolstikhina, Boch, Dodin, Krasnov, Meleshchenio, Nikiforova, Rostovtsev, Fomichev, Chernysheva, Yakovlev). 3. Leningradskiy gornyy institut (for Bodylevskiy). 4. Vsesoyuznyy neftyanoy nauchno-issledovatel'skiy geologo-razvedochnyy institut (for Vasilenko, Domrachev). 5. Geologicheskiy institut Akademii nauk SSSR (for Menner). 6. Laboratoriya dokembriya Akademii nauk SSSR (for Obruchev). 7. Institut geologii Arktiki (for Saks). 8. Paleontologicheskiy institut Akademii nauk SSSR (for Sarycheva)

(Siberia--Geology, Stratigraphic)

APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001652720016-1"

"APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001652720016-1

SPIZHARSKIY, T.N.

Stratigraphy and facies of the sedimentary and volcanic rock cover of the Siberian Platform. Sov.geol. 1 no.12:99-114 D '58. (MIRA 12:4)

1. Vsesoyuznyy nauchno-issledovatel'skiy geologicheskiy institut.
(Siberian Platform--Geology, Stratigraphic)

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SAKS, Vladimir Nikolayevich; GRAMBERG, I.S.; RONKINA, Z.Z.; APLONOVA, E.N.; SPIZHARSKIY, T.N., nauchnyy red.; KELAREV, L.A., vedushchiy red.; GENNAD'YEVA, I.M., tekhn.red.

[Mesozoic sediments in the Khatanga Depression] Mezozoiskie otlozheniia Khantangskoi vpadiny. Leningrad, Gos. nauchno-tekhn.izd-vo neft.i gorno-topl.lit-ry Leningr.otd-nie. 1959, 225 p. (Leningrad. Nauchno-issledovatel'skii institut geologii Arktiki. Trudy, vol.99) (MIRA 12:6)

(Siberia, Northern--Geology)

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SPIZHARSKIY, T.N., red.; BODYLEVSKIY, V.I., red.; BOCH, S.G., red.; VASILENKO, V.K., red.; DODIN, A.L., red.; DOMRACHEV, S.M., red.; KRASNOV, I.I., red.; MELESHCHENKO, V.S., red.; MENNER, V.V., red.; NIKIFOROVA, O.I., red.; OBRUCHEV, S.V., red.; RZHONSNITSKAYA, M.A., red.; ROSTOVTSEV, N.N., red.; SAKS, V.N., red.; SARYCHEVA, T.G., red.; FOMICHEV, V.D., red.; CHERNYSHEVA, N.Ye., red.; YAKOVLEV, S.A., red.; SKVORTSOV, V.P., red.izd-va; PEN'KOVA, S.A., tekhn.red.

[Decisions of the Interdepartmental Conference on Making Unified Stratigraphic Charts of Siberia] Resheniia Mezhvedomstvennogo soveshchaniia po razrabotke unifitsirovannykh stratigraficheskikh skhem Sibiri. Moskva, Gos.nauchno-tekhn.izd-vo lit-ry po geol. i okhrane nedr, 1959. 91 p. (MIRA 12:9)

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(Siberia--Geology, Stratigraphic)

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OZERTSOVA, V.A.; POLYAKOVA, L.V.; SPIZHARSKIY, T.N.

Relief of the crystalline foundation of the southeastern part of the Siberian Platform, based on aeromagnetic data [data with summary in English]. Sov. geol. 2 no.5:66-72 My '59. (MIRA 12:8)

1. Vsesoyuznyy nauchno-issledovatel'skiy geologicheskiy institut.
(Siberian Platform--Geology, Structural)

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IVANOV, Andrey Alekseyevich; LEVITSKIY, Yuriy Frolovich; SPIZHARSKIY, T.N., retsenzent; BRUNS, Ye.P., retsenzent; LIKHAREV, B.K., retsenzent; STEPANOV, D.L., retsenzent; LUPPOV, N.P., retsenzent; KORENEVSKIY, S.M., retsenzent; TATARINOV, P.M., red.; GOL'DBERG, R.Ya., red. izd-va; IVANOVA, A.G., tekhn.red.

[Geology of halogenic deposits (formations) in the U.S.S.R.] Geologiia galogennykh otlozhenii (formatsii) SSSR. Moskva, Gos. nauchno-tekhn.izd-vo lit-ry po geol.i okhrane nedr, 1960. 421 p. (Leningrad. Vsesoiuznyi geologicheskii institut. Trudy, vol.35) (MIRA 13:6)

(Salts)

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(Geology—Dictionaries)

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MAROCHKIN, N.I., glav. red.; MARKOVSKIY, A.P., zam. glav. red.; UL'YANOV, N.K., zam. glav. red.; GANESHIN, G.S., red.; ZAYTSEV, I.K., red.; KNIPOVICH, Yu.N., red.; KULIKOV, M.V., red.; LABAZIN, G.S., red.; LUR'YE, M.L., red.; SIMONENKO, T.N., red.; SPIZHARSKIY, T.N., red.; STERLIN, D.Ya., red.; TATARINOV, P.M., red.; BELYAKOVA, Ye.Ye., nauchnyy red.; MAKRUSHIN, V.A., tekhn. red.

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LIKHANOV, B.N.; KHAUSTOVA, M.N.; YEROKHINA, A.A.; MARKOV, F.G.; SPIZHARSKIY, T.N.; DODIN, A.L.; KHIL'TOVA, V.Ya.; CHEREPNIN, L.M.; GROMOV, L.V., kand. geol.-mineral. nauk; SHCHERBACHEV, V.D.; SHUTYY, M.Ye.; NEMCHINOV, V.S., akad., red.; NEKRASOV, N.N., red.; PUSTOVALOV, L.V., red.; ZUBKOV, A.I., kand. ekon. nauk, red.; KAVUN, T.K., red. izd-va; SUSHKOVA, L.A., tekhn. red.

[Natural conditions of Krasnoyarsk Territory] Prirodnye usloviia Krasnoiarskogo kraia. Moskva, Izd-vo Akad. nauk SSSR, 1961. 248 p. (MIRA 14:7)

1. Krasnoyarskaya kompleksnaya ekspeditsiya. 2. Institut geografii AN SSSR (for Likhanov, Khaustova). 3. Pochvennyy institut im. V.V.Dokuchayeva AN SSSR (for Yerokhina). 4. Nauchno-issledovatel'skiy institut geologii Arktiki Ministerstva geologii i okhrany nedr SSSR (for Markov). 5. Vsesoyuznyy geologicheskiy institut Ministerstva geologii i okhrany nedr SSSR (for Spizharskiy, Dodin). 6. Laboratoriya geologii dokembriya AN SSSR (for Khil'tova). 7. Krasnoyarskiy pedagogicheskiy institut Ministerstva prosveshcheniya RSFSR (for Cherepnin). 8. Sovet po izucheniyu proizvoditel'nykh sil pri Prezidiume AN SSSR (for Gromov, Likhanov, Khaustova, Yerokhina, Shcherbachev, Shutyy). 9. Chlen-korrespondent AN SSSR (for Nekrasov, Pustovalov)

(Krasnoyarsk Territory--Natural history)

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MAROCHKIN, N.I., glavnyy red.; MARKOVSKIY, A.P., zamestitel' glavnogo red.; TATARINOV, P.M., zamestitel' glavnogo red.; BELYAKOVA, Ye.Ye., nauchnyy red.; GANESHIN, G.S., red.; ZAYTSEV, I.K., red.; KULIKOV, M.V., red.; KUREK, N.N., red.; KNIPOVICH, Yu.N., red.; LUR'YE, M.L., red.; SIMONENKO, T.N., red.; SPIZHARSKIY, T.N., red.; STERLIN, D.Ya., red.

[Results of the research carried out by the All-Union Geological Institute in 1959] Ezhegodnik po rezul'tatam rabot VSEGEI za 1959 g. Leningrad, Otdel nauchno-tekhn.informatsii VSEGEI, 1961. 195 p. (Informatsionnyi sbornik, no.44). (MIRA 15:4)
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Boundary between the Cambrian and the Pre-Cambrian. Sov.geol. 6 no.8: 40-48 Ag '63. (MIRA 16:9)

1. Vsesoyuznyy nauchno-issledovatel'skiy geologicheskiy institut.
(Geology, Stratigraphic)

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SPIZHARSKIY, T.N.; GROMOV, Yu.Ya.; Prinimali uchastiye: BOROVIKOV, L.I.; [illegible], B.I.; GOMEISKAYA, Ye.N.; ZUBTSOV, Ye.I.; SALOP, L.I.; SHTAL', N.V.

Paleotectonic maps and the methods for plotting them. Metod. paleogeog. issl. Sb.1:238-247 '64. (MIRA 18:6)

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BOROVIKOV, I.I.; SPIZHARSKIY, T.N.

Principles of the division and correlation of Pre-Cambrian sediments. Geol. i geofiz. no.1:21-29 '65. (MIRA 18:6)

1. Vsesoyuznyy nauchno-issledovatel'skiy geologicheskiy institut, Leningrad.

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SPIZHERNAYA, O. N. (Eng.); FEYGEL'SHTEYN, P. L. (Eng.);

XIII. "Mechanization and Automation of Galvanization Processes," Automation and Mechanization of Production Processes in Instrument Manufacturing, Moscow, Mashgiz, 1958. 591 p.

PURPOSE: This book is intended for engineers, technicians, and scientific personnel concerned with mechanization and automation of production processes in instrument manufacturing, and for students and teachers of this subject in vuzes.

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SPIZHEVSKIY, I.I. [deceased]; BURLYAND, V.A.; TROITSKIY, L.V., red.; FRIDKIN, L.M., tekhn.red.

[Readings for radio amateurs] Khrestomatiia radioliubitelia. Moskva, Gos.energ. izd-vo, 1957. 270 p. (Massovaia radio-biblioteka, no.283) (Radio) (MIRA 11:2)

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L 45218-65 EWA(k)/FBD/EWG(r)/EWT(1)/EWP(e)/EWT(m)/EEC(k)-2/EWP(i)/EEC(t)/T/
EEC(b)-2/EWP(k)/EWA(m)-2/EWA(h) Pm-4/Pn-4/Po-4/Pf-4/Peb/Pi-4/Pl-4 IJP(c)
WG/WH

ACCESSION NR: AP5011071 UR/0185/65/010/004/0455/0457

AUTHOR: Bayborodin, Yu. V.; Harazha, S. A.; Hravchenko, V. Y.; Spizhova, N. I.

TITLE: Investigations of the operation of a Q-spoiled ruby laser 25 63 B

SOURCE: Ukrayins'kyy fizychnyy zhurnal, v. 10, no. 4, 1965, 455-457

TOPIC TAGS: Q spoiled laser, ruby laser, pump energy, laser characteristic

ABSTRACT: The authors present the results of an investigation of certain characteristics of Q-spoiled lasers, which play a major role in the generation of giant light pulses. The effect of the misalignment angle of the mirrors on the threshold pumping energy under various parameters of the optical cavity (static characteristics), and the dependence of the intensity of the laser radiation on these parameters (dynamic characteristics) were experimentally investigated. Among the dynamic characteristics investigated were the relationship between the emission intensity and the operating speed of the shutter, the dimensions of the optical resonator, the Q of the resonator, and the pump energy. A ruby rod 120 mm long and with diameter up to 12 mm, with a 90° orientation of the optical axis, was investigated. The pump source was a xenon flash lamp. The

Card 1/4

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optical cavity was made up of a dielectric coated mirror and a total internal reflection prism accurate to ± 2°, mounted on a shaft of a high-speed motor (~ 30,000 rpm). The optical resonator was aligned with an accuracy to 10". The shutter was synchronized with the peak of the flash lamp. The radiation receiver was a photocell in conjunction with an oscilloscope, which determined the pulse amplitude with an accuracy to 10%. Typical measured and calculated static characteristics are shown in Figs. 1 and 2 of the Enclosure. The amplitude of the radiated pulse was proportional to the square root of the shutter speed, in agreement with the calculations. For a distance of 85 cm between mirrors and a transparency of 40%, the maximum intensity corresponded to a pump energy 50% above threshold. These values are optimal for a prism rotation speed of $20 \times 10^3$ revolutions per minute. Orig. art. has: 3 figures. [02]

ASSOCIATION: None

SUBMITTED: 15Dec64 ENCL: 02 SUB CODE: EC

NR REF SOV: 001 OTHER: 002 ATD PRESS: 4061

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L 4452-66 EWA(k)/FBD/EWT(1)/EWT(m)/EEC(k)-2/EWP(i)/T/EWP(k)/EWA(m)-2/EWA(h)
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ACC NR: AP5020695 UR/0185/65/010/008/0919/0920

AUTHOR: Bayborodin, Yu. V.; Harazha, S. A.; Kravchenko, V. Y.; Spizhova, N. I.

TITLE: Prism shutter with periodic opening

SOURCE: Ukrayins'kyy fizychnyy zhurnal, v. 10, no. 8, 1965, 919-920

TOPIC TAGS: ruby laser, laser pumping, laser pulsation, optic prism

ABSTRACT: A multi-prism Q switch is described, consisting of a rotating prism set on the shaft of an electric motor and a series of 60 totally reflecting prisms set on an annulus. The construction allows precise adjustment of the rotating prism relative to the ruby crystal of the laser and relative to the other prisms. Rotation of the setup results in multiple opening of the shutter which in turn leads to generation of a series of laser pulses. The rate of opening in this system is twice as large as with a single-prism Q switch. The repetition rate of the pulses depends on the rate of revolution of the motor and the number of prisms on the annulus, and the number of generated pulses depends on the length of the illumination of the pump lamp and the frequency of closing the optical resonator. A repetition rate of 20 cps with a length of the illumination pulse of 2 msec resulted in a rate of 4 to 20 pulses, depending on the pump energy. A simple synchronization system of the pump results in giant light pulses with a peak close to 1 MW. Orig. art. has: 2 figures.

ASSOCIATION: Instytut fizyky AN URSR, Kyyiv [Institut fiziki AN UkrSSR, Kiyev]

Card 1/2

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"APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001652720016-1

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ACC NR: AP5020695

(Physics Institute, AN UkrSSR)

SUBMITTED: 07Apr65 ENCL: 00 SUB CODE: OP, EC

NR REF SOV: 001 OTHER: 001

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"APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001652720016-1

BAYBORODIN, Yu.V.; GARAZHA, S.A. [Harazha, S.A.]; KRAVCHENKO, V.I.; SPIZHOVAYA, N.I. [Spizhova, N.I.]

Operation of a ruby laser with modulated Q-factor. Ukr. fiz. zhur. 10 no.4:455-457 Ap '65. (MIRA 18:5)

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SPLAIT, M.; DOLJAK, M.

Silver in the photochemical industry. Fotokemijska. p. 7. KEMIJA U INDUSTRIJI. (Drustvo kemicara-tehnologa NR Hrvatske. Sekcija kemicara) Zagreb. Vol. 5, no. 3, Mar. 1956

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SPLAVNIK, V.M.

Fate of patients having undergone nephrectomy. Trudy Kish. gos. med. inst. 24:140-142 '64 (MIRA 18:1)

1. - 1-ya bol'nitsa g. Bel'tsy. Nauchnyy rukovoditel' - doktor med. nauk. S.D. Goligorskiy.

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"APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001652720016-1

SPLAVNIK, V.M.; YUSIM. Kh.I.

Three cases of renal echinococcosis. Trudy Kish. gos. med. inst. 24:259-260 '64 (MIRA 18:1)

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