

PETROV, N.A.; NIFANT'YEV, E.Ye.; GOL'TSOVA, R.G.

Trans-esterification of diethyl phosphite with ethylene glycol.
Zhur. ob. khim. 33 no.5:1485-1488 My '63. (MIRA 16:6)

(Diethyl phosphites) (Esterification)
(Ethylene glycol)

ACCESSION NR: AT4034002

8/0000/63/000/000/0170/0174

AUTHOR: Patrov, K. A.; Nifant'yev, E. Ya.; Gol'tsova, E. G.

TITLE: Phosphorus-containing polymers. X. Synthesis of polyphosphite-based polyphosphonates

SOURCE: Geterotsepnny*ya vy*sokomolekulyarny*ya soyedineniya (Heterochain macromolecular compounds); sbornik statey. Moscow, Izd-vo "Nauka," 1963, 170-174

TOPIC TAGS: polymerization, phosphorus containing polymer, polyphosphite, polyphosphonate

ABSTRACT: As a further step in the authors' polymer studies data are given on the synthesis of polyalkylalkylenephosphonates, poly- α -hydroxyalkylalkylene-phosphonates and poly- α -aminoalkylalkylenephosphonates by the Michaelis and Becker method using acid polyalkylenephosphites. The following polymers were prepared, identified and described: polybenzylhexamethylenephosphonate, poly- α -hydroxybenzylhexamethylenephosphata, poly- α -dibutylaminobenzylhexamethyl enephosphonate, polydiethylaminomethylhexamethylenephosphonate, poly- α -propyl-aminoisopropylhexamethylenephosphonate, poly-diethylaminomethyl-p-xylydenephos-phonate, polybutylamino-bis-methylhexamethylenephosphonate, and a copolymer of
Card 1/2

ACCESSION NR: AT4034002

L-dibutylaminobenzylhexamethylenephosphonate and di-(hexamethylenephosphato) disulfide. The preparative procedure consists essentially of reacting the reagents for several hours at 90-135C; the yield varied from 48 to 98% for different individual products. Orig. art. has: 4 chemical equations.

ASSOCIATION: None

SUBMITTED: 13Nov62

DATE ACQ: 30Apr64

ENCL: 00

SUB CODE: OC

NO REF SOV: 009

OTHER: 004

Card 2/2

PETROV, K.A.; NIFANT'YEV, E.Ye.; GOL'TSOVA, R.G.; KORNILEV, S.M.

Phosphorus-containing polymers. Part 12: Synthesis of
polymeric analogs of phosphorus-containing insecticides.
Vysokom.sobd. 6 no. 5:929-933 My '64. (MIRA 17:6)

GOL'TSOVA, T.G., (Alma-Ata)

Comparative effectiveness of intravenous, intra-arterial, and
intracarotid infusion of blood in acute hemorrhage and shock.
Pat.fiziol. i eksp. terap. 2 no.3:44 My-Je '58 (MIRA 11:7)

1. Iz kafedry patologicheskoy fiziologii (sav. - zaslyshennyy
deyatel'nauki prof. O.S. Glosman) Kazakhskogo meditsinskogo instituta.
(BLOOD--TRANSFUSION)
(HEMORRHAGE)
(SHOCK)

GOL'TSOVA, T. G., Cand Med Sci (diss) -- "The comparative effectiveness of intravenous, intrarterial, and intracarotid transfusion of blood in acute blood loss and shock". Alma-Ata, 1959, 10 pp (Kazakh State Med Inst), 300 copies (KL, No 9, 1960, 128)

GLOZMAN, O.S.; GOL'TSOVA, T.G.; ZIKYEVA, A.I.; LONSHCHAKOVA, A.S.
(Alma-Ata)

Effect of hypothermia on the development of experimental nephro-
calcinosis in rats. Arkh.pat. 23 no.4:37-42 '61. (MIRA 14:6)

1. Iz kafedry patologicheskoy fiziologii (zav. - prof. O.S.
Glozman) i kafedry patologicheskoy anatomii (zav. - prof.
P.P. Oshkur) Kazakhskogo meditsinskogo instituta.
(HYPOTHERMIA) (KIDNEYS--DISEASES)
(CALCIUM METABOLISM)

F

Country : USSR
Category : Microbiology. Microbes Pathogenic For Man and Animals.
Aerobic Bacilli.
Abs. Jour : Ref Zhur-Biol., No 23, 1956, No 105004
Author : Gorlov, B. V.; Zarevich, T.V.; Gol'tsova, T.I.; Khokhryakov*
Institut. :
Title : Study of the Viability of Anthrax Spores Exposed to Freezing
Orig. Pub. : Inform. byul. biol. prom-sti. 1957. No 2, 3-5
Abstract : The physical, cultural-morphological, virulent properties, reactivity and viability of spores of 26 different series of anthrax vaccines were studied after begin frozen once or twice at -42° - -44° for three days with subsequent thawing at 18° . It was established that after freezing the physical properties of the anthrax vaccines are maintained, but the viability of the spores is reduced considerably. The virulence and reactivity are altered.—". Ya. Bovarskaya
*I.A., Kokoreva V.B.
Card: 1/1

L 45668-66 BWT(m)/BWP(t)/ETI JJP(c) JD/WW/JJ
ACC NR: AP6021213 (N) SOURCE CODE: UR/0294/66/004/003/0360/0363

AUTHOR: Gol'tsova, Ye. I. 7/

ORG: Power Engineering Institute Im. Krzhizhanovskiy (Energeticheskiy institut) B

TITLE: Density of lithium, sodium and potassium up to 1500-1600°C

SDURCE: Teplofizika vysokikh temperatur, v. 4, no. 3, 1966, 360-363

TOPIC TAGS: thermocouple, lithium, sodium, platinum, liquid metal, 6

ABSTRACT: Densities of lithium, sodium and potassium were determined up to temperatures of 1600°C. Special apparatus and measuring techniques developed to overcome the problems associated with very high chemical activity of these elements are discussed. The measurements were made in argon gas at pressures of 10 to 20 atm above the metal vapor saturation pressure. Measurement of the ratio of mass to volume of the sample at a point where the temperature variation was very small was made to obtain a precise density-temperature relationship. The temperature was determined using chromel-alumel thermocouples below 1200°C and by platinum-platinum-rhodium thermocouples at higher temperatures. The density-temperature relationship is linear up to 1400°C. Above this temperature a strong drop in density occurs, analogous to that of non-metallic liquids near the critical temperature. Analytic forms for the experimental data were derived for the linear range. The experimental errors are ±0.3%,

UDC: 669.86:532.14

Part 1/2

L 8568-66

ACC NR: AP6021213

$\pm 0.5\%$, $\pm 0.7\%$ for lithium, sodium, and potassium, respectively. The results below 700°C agree with the data in R. N. Lyon's *Liquid Metals Handbook*. Orig. art. has: 2 tables, 5 figures.

SUB CODE: 20/

SUBM DATE: 20Sep65/

ORIG REF: 003/

CTR REF: 001

Card 2/2

VOROB'YEV, Nikolay Konstantinovich; GOL'TSSMIDT, Vladimir
Augustovich [deceased]; KARAPET'YANTS, Mikhail
Khrisostofovich; KISILEVA, Vera Leonidovna; KRASNOV,
Konstantin Solomonovich; LEVINSKIY, Yu.V., red

[Laboratory work in physical chemistry] Praktikum po
fizicheskoi khimii. Izd.3., perer. i dop. Moskva, Khi-
mija, 1964. 383 p. (MIRA 18:4)

SOV/137-58-11-22369

Translation from: Referativnyy zhurnal. Metallurgiya, 1958, Nr 11, p 75 (USSR)

AUTHORS: Kirillov, B. S., Gorenshiteyn, M. M., Tkachenko, V. K., Goltvenko, A. I.

TITLE: An Investigation of Dynamic Processes in the Live Train of an 1170 Blooming Mill Under More Severe Conditions of Rolling (Issledovaniye dinamicheskikh protsessov v rabochey linii blyuminga 1170 pri ūzhestochennom rezhime prokatki)

PERIODICAL: Izv. vyssh. uchebn. zavedeniy. Chernaya metallurgiya, 1958, Nr 1, pp 128-137

ABSTRACT: An investigation is made of dynamic processes in the live train of a blooming mill (B) by comparing regimes for rolling 6.9-t steel ingots in 13 and 11 passes. The results serve as reference material for dynamic stress analyses relating the more intensive B rolling operations. The analytical and experimental investigations include derivation of the magnitudes of the static, motive, and dynamic moments at different phases of the passage of the metal (Me) through the rolls. The static and motive moments in the period of Me contact display a linear change and may be deemed constant when a steady-state process is in progress. The dynamic moments are investigated

Card 1/2

SOV/137-58-11-22369

An Investigation of Dynamic Processes in the Live Train (cont.)

by means of the equation for the moment of the elastic forces of the spindle induced by the inertia of the flywheel masses in the live train of the mill during the contact phase and the steady rolling process. The effect of the law governing the increase in and the value of the moment of resistance during contact upon change in the dynamics of the process is demonstrated. Dynamic phenomena are virtually equal upon rolling in 13 and in 11 passes. The fluctuations in the torque moments induced by the elasticity of the system do not exceed 3% of the static load.

V. I.

Card 2/2

GORESHCHENYI, M.M., kand.tekhn.nauk; KIRILLOV, B.S., kand.tekhn.nauk;
TKACHENKO, V.K., inzh.; GOLITSYANCO, A.I., inzh.; POGORZHEL'SKIY,
V.I., inzh.; HARANETS, P.D., inzh.; YASHCHENKO, Z.A., inzh.;
FIL'CHAKOVA, V.A., inzh.

Establishing the most satisfactory conditions for rolling on
blooming mills with increased load on the main driving motor.
Izv. vyz. ucheb. zav.; chern. met. no.3:91-101 Mr '58. (MIRA 11:5)

1. Zhdanovskiy metallurgicheskiy institut i zavod "Azovstal".
(Rolling mills--Electric driving)

S/137/60/000/009/005/029
A006/A001

Translation from: Referativnyy zhurnal, Metallurgiya, 1960, No. 9, p. 109.
20243

AUTHORS: Kirillov, B.S., Gomenshteyn, M.M., Goltvenko, A.I., Tkachenko, V.K.

TITLE: Calculation of the Multi-Purpose Spindle of a Rolling Mill

PERIODICAL: Sb. nauchn. tr. Zhdanovsk. metallurg. inst., 1960, No. 5, pp. 372-381

TEXT: A comparison is made of the existing methods for calculating multi-purpose spindles of a rolling mill. The magnitudes of error when using one or the other method were revealed. As a result of the study it was established that the discrepancy between the theoretical calculations of a spindle fork and experimental data is explained by the inaccurate accounting for the twisting stress. A.I. Tselikov recommends to use the method of the strength of materials applied to the given case when calculating bore rolls. When calculating the blades of a roll, new coefficients are introduced which can be used as a basis of approximate calculations.

K.U.

Translator's note: This is the full translation of the original Russian abstract.
Card 1/1

GOLTVENKO, A. I.

S/137/62/000/002/060/144
A006/A101

AUTHORS: Kapustina, M. I., Kuzema, I. D., Savchenko, A. M., Shiryayev, V. I.,
Goltvenko, A. I., Grishina, Ye. N.

TITLE: A rapid method of calculating the efficiency of three-high sheet
rolling mills

PERIODICAL: Referativnyy zhurnal, Metallurgiya, no. 2, 1962, 18, abstract 2D86
("Sb. nauchn. tr. Zhdanovsk. metallurg. in-t", 1960, no. 6, 186 - 198)

TEXT: Calculation data were checked by the oscillographic timing of a mill
operation for all the brigades when rolling the main conventional sheet types of
the mill assortments. A method was developed for calculating the efficiency of
three-high mills on the basis of an analysis of reduction conditions, and force
and power indices of rolling. The theoretical calculation of the efficiency of
sheet rolling mills is given. The problem is discussed how to check the mill
amount of work. ✓

N. Yudina

[Abstracter's note: Complete translation]

Card 1/1

ROMANOV, D., kand.tekhn.nauk; GOLTYANITSA, K., inzh.

Using piles with pedestals formed by blasting in sagging loess
soils. Stroitel'no-arkhit. 8 no.6:31-32 Je '60.

(MIRA 13:6)

(Zaporozh'ye—Piling (Civil engineering))

SAVCHENKO, I., inzh.; GOLTYVYANITSA, K. [Goltyv'ianytsia, K.], inzh.;
BOGDANOV, M. [Bogdanov, M.], inzh.; SHAYDUK, V., inzh.

Use of thermal cutters for working granites. Bud.mat.i konstr.
4 no.6:51-53 N-D '62. (MIRA 15:12)
(Stonecutting—Equipment and supplies)

GOLTYVANYITSA, K.P., insh.; DENISENKO, V.O., insh.

Roof insulator made of local raw materials. Stroim. mat. 7 no.2:28-29
F '61. (MIRA 14:3)
(Roofing) (Insulation(Heat))

Gol'tyakov N.S.

3(8) p.3

PHASE I BOOK EXPLOITATION

SOV/2268

Glavnaya geofizicheskaya observatoriya

Voprosy fiziki atmosfery (Problems in Physics of the Atmosphere) Leningrad, Gidrometeoizdat, 1959. 74 p. (Series: Its: Trudy, vyp. 82) Errata slip inserted. 1,250 copies printed.

Sponsoring Agency: Glavnoye upravleniye gidrometeorologicheskoy sluzhby pri Sovete Ministrov SSSR.

Ed. (Title page): N. S. Shishkin, Doctor of Physical and Mathematical Sciences; Ed. (Inside book): T. V. Ushakova; Tech. Ed.: M. I. Braynina.

PURPOSE: This issue of the Observatory's Transactions is intended for students and teachers of synoptic meteorology as well as for professionals in the field.

COVERAGE: This collection of articles is mainly concerned with the results of investigations on the physics of the atmosphere carried out in 1956-57 at the GGO, Division for the Physics of Free Atmosphere. The authors discuss the development (formation) and disintegration of convective clouds

Card 1/3

Problems in Physics (Cont.)

SOV/2268

and the relationship between the cloud structure and aircraft icing. A new method of affecting supercooled clouds is described. One article is devoted to an analysis of the frontal structure of anticyclones. References accompany each article.

TABLE OF CONTENTS:

Shishkin, N. S. Growth and Disintegration <u>[Dispersion]</u> of Convective Clouds During Non-stable Stratification of the Atmosphere	3
Vasil'chenko, I. V. Computation of the Characteristics of Convective Cloud Flow	22
Zavarina, M. V. Phase Structure of Clouds and Aircraft Icing The article analyzes the results of observations made at Shosseynaya near Leningrad and at Arkhangel'sk for the purpose of establishing the effect of meteorological conditions on aircraft icing. The probability of icing as a function of cloud forms is presented in several graphs.	26

Card 2/3

Problems in Physics (Cont.)

SOV/2268

Gol'tyakov, N. F., and P. N. Krasikov. Investigation of the Effect of Magnesium Antimonide on the Formation of Ice Particles in Supercooled Water Fog	36
Krasikov, P. N., and G. A. Chikirova. Effect of Ammonium Chloride Admixture on the Stability of Water Fogs	41
Prorochuk, O. P. Frontal Structure of Anticyclones	45
Sal'man, Ye. M. Methods of Radar Exploration of Cumulus Clouds	68

AVAILABLE: Library of Congress

Card 3/3

MM/lbb
10-9-59

GOLITSKY, I.M., Cand Agr Sci --(disc) "Productivity and utilization of the red Garb toy breed of cattle in the "Ziborid" and "Spartak" neighborhoods of Vladivostok Oblast." *Izv.*, 1977. 12 pp (Non Vet Academy of Agr USSR), 150 copies (11,11-23, 115)

FUEMAN, M.S.; BARDHAN, A.S.; GOL'TYAYEVA, K.A.; SAVCHUK, S.N.

Oxidation of n-butane in the gaseous phase under pressure. Gas. prom.
no. 10:36-4) 0 '58. (MIRA 11:11)
(Butane) (Oxidation)

ACCESSION NR: AT4038530

S/0000/63/000/000/0007/0017

AUTHOR: Furman, M. S. (Doctor of chemical sciences); Lipes, V. V.; Vinogradskaya, M. V.; Gol'tynayova, N. A.

TITLE: Liquid phase oxidation of cyclohexane by atmospheric air at high temperatures

SOURCE: Poluprodukty*dlya sinteza poliamidov (Intermediates for polyamide synthesis). Moscow, Goskhimizdat, 1963, 7-17

TOPIC TAGS: cyclohexane, cyclohexanol, cyclohexanone, cyclohexane oxidation, liquid phase oxidation, cyclohexane air oxidation, high temperature cyclohexane oxidation, cyclohexane oxidation kinetics

ABSTRACT: The kinetics of the liquid phase air oxidation of cyclohexane were studied in the absence of catalysts at temperatures of 160, 170 and 180C and pressures of 20, 35 and 50 atm. It was established that high temperature oxidation is of practical interest when the reaction lasts less than one hour. The ratio of cyclohexanol to cyclohexanone, resulting from the oxidation of cyclohexane, increases the temperature rises. The specific activation energy of the reaction was 3.5 to 5.5 kcal/mol at pressures of 20 to 50 atm. Oxidation at the indicated temperatures occurs in the diffusion area, i. e.

Card

1/2

ACCESSION NR: AT4033530

the rate of oxidation is not governed by the rate at which the reaction proceeds, but is determined by the rate of oxygen absorption in the cyclohexane. "The analyses were carried out by L. G. Solov'yeva by a method developed in the analytical laboratory of GIAP." Orig. art. has: 9 graphs and 2 tables.

ASSOCIATION: None

SUBMITTED: 12Oct63

DATE ACQ: 06Apr64

ENCL: 00

SUB CODE: CH

NO REF SOV: 016

OTHER: 007

2/2

Card

LIPES, V.V.; KAZANTSEVA, L.K.; GOL'TYAYEVA, N.A.; FURMAN, M.S.

Analysing the composition of acids forming during the liquid-
phase oxidation of cyclohexane by air oxygen. Khim. prom.
40 no.9#568-671 S '64. (MIRA 17:11)

GOL'TZMAN, V.Kh., inzh.

Constructing hydraulic structures without building cofferdams.
Bet.1 shel.-bet. no.1:23-27 Ja '60. (MIRA 13:5)
(Hydroelectric power stations)
(Filing (Civil engineering))

GOLU, M.

"Principles of experimental psychology." Vop. psikhol. 10
no.2:177-180 Mr-Ap '64. (MIRA 17:9)

BALANESCU, I.N.; IANCU, I.; PUFAN, C.; POPESCU, I.; GOLU, M.; CAZANGIU,
A.; CONSTANTINESCU, P.

Contributions to the study of the world of the young generation.
Rev psihologie 11 no.1:5-21 '65.

1. Chair of Psychology of the University of Bucharest. Sub-
mitted August 12, 1964.

00410210, 1, 1

Preparation from Pyrethrum," by V. P. Goludze, T. A. Pkheidze, I. Ya. Emukidze, and G. I. Yashvili, Sbornik Trud Tbilisskogo Nauchno-Issledovatel'skogo Khimiko-Farmatsevticheskogo Instituta 1955, Vol 7, pp 123-132 (from Referativnyy Zhurnal--Khimiya, No 4, Feb 57, Abstract No 12408 by A. Grapov)

"Describes extraction of oleoresin (I) from dry flowers of Dalmatian daisies with anhydrous dichloroethane (II) by boiling and at room temperature. Calcium chloride (III), placed in a stream of boiling (I), decreases the activity of (I). Copper sulfate (CS) and Tikhva-Askan clay (TA) increase the activity of (I). An insecticidal dust is also formed with (TA). Treatment with isoamyl alcohol or methanol (IV) in the presence of (CS) led to a decrease in the activity of (I); and (IV) in the presence of (III) - to an increase. Alcoholic solutions are lightened with basic

USSE/Health and Animal Physiology: Thermoregulation.

2

Abstr Jour: Ref Zhur-Biol., No 20, 1958, 93023.

Author : Golub, A., Porina, S., Yezhkova, D.

List :

Title : Development of Thermogenesis in Young Pigs.

Orig Pub: Za soos. s.-zh. nauku, 1958, 17, No 1, 73-82.

Abstract: O_2 consumption in 14 young pigs was measured by the Krogh method from the day of their birth to the age of 1 month. Up to the age of 6 days the pigs did not react to a lowering of the temperature of the environment from 23 ± 1 degrees to 3 ± 1 degrees with an increased consumption of O_2 . With a lowering of the temperature for 30 minutes the rectal temperature fell about 1.6 degrees. The O_2 consumption with

Card : 1/2

KONOPLYANTSEV, A.A.; SEMENOV, S.M.; GOLUB', A.G.; KARATILUYEVA, S.S.

Regionalization of the northern slope of the Trans-Ili Alatau and the alluvial Ili Depression adjacent to it according to the characteristics of the regime of ground waters. Trudy VSEGINGEO no.10:139-151 '64.

(MIRA 17:10)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut gidrogeologii i inzhenernoy geologii.

GOLUB, A.I.; KORSUNSKIY, Ye.I.; LYANDS, A.Ye., spetsred.; DAMASKINA, G.B.,
red.; YAROV, E.M., tekhn. red.

[Advanced operating methods for wrapping machines] Peredovye
metody raboty na zavertyvalushchikh mashinakh. Moskva, Pishche-
promizdat, 1956. 29 p. (MIRA 11:8)
(Wrapping machines)

GOLUB, A. I.

Synchronization of budding in yeast. *Sitologia* 3 no.4:481-484
Jl-Ag '61. (MIRA 14:8)

1. Otdel biofiziki Instituta biologii Ural'skogo filiala AN SSSR,
Sverdlovsk.
(YEAST) (CELL DIVISION (BIOLOGY))
(TEMPERATURE—PHYSIOLOGICAL EFFECT)

KOTIK, P.L.; GOLUB, A.I.; GRATERSHTEYN, P.M.; LOBKOVSKIY, D.P.

Automatically controlled skip loaders. Ogneupory 25 no.10:448-452
'60. (MIRA 13:10)

1. Nikitovskiy dolomitnyy kombinat (for Kotik). 2. Ukrenergochernnet
(for Golub, Gratershteyn, Lobkovskiy).
(Dolomite) (Loading and unloading)
(Automatic control)

GOLUB', A.I.; ZAYTSEV, A.I.

Instrument for precise measurement of machine-shaft speeds.
Prilborostrosnie no.12:27 D '61. (MIRA 14:12)
(Tachometer)

ZAYTSEV, A.I., kand.tekhn.nauk; GOLUB', A.I.; GOLYERKIN, A.A.

Hydraulic removal of silt from mechanical self-cleaning filters.
Energ. i elektrotekh. prom. no.1:61-64 '62. (MIRA 15:6)

1. Ukraine:gochermet.
(Air filters)

KOROTKOV, A.N.; BEREZNEV, V.N.; YURKOVSKIY, A.Ye.; BUTENKO, V.A.; GOLUB, A.I.;
DUDAVSKIY, I.Ye.; KOLESNIK, M.I.; SOKOLOV, I.N.; MASLOV, V.D.

Increasing the stability of arches and walls of large-capacity
steel-smelting electric furnaces at the "Dneprospetsstal'" Plant.
Stal' 23 no.3:222-224 Mr '63. (MIRA 16:5)

1. Zavod "Dneprospetsstal'", Zaporozhskiy zavod ogneuporov i
Proyektnyy institut i inspektsiya po sluzhbe i kachestvu
ogneuporov.

(Electric furnaces--Design and construction)
(Zaproph'ye--Iron and steel plants)

GOLUB, A. I.

USSR/Chemical Technology - Chemical Products and Their Application. Treatment of Solid Mineral Fuels, I-12

Abst Journal: Referat Zhur - Khimiya, No 19, 1956, 62536

Author: Gof'tman, M. V., Golub', A. I.

Institution: None

Title: Catalytic Oxidation of Phenanthrene and of Anthracene Fractions. Communication 1.

Original

Periodical: Zh. prikl. khimii, 1955, 28, No 5, 507-515

Abstract: Phenanthrene (I) and anthracene fractions were oxidized for the purpose of producing phthalic anhydride (II). The catalyst was fused vanadium pentoxide. Optimal operating conditions were determined by vapor phase oxidation of pure naphthalene. At 460°, contact time ~2 seconds and ratio of air to vaporized substance ~15 l/g yield of acidic products recomputed as II was 91% or 79% of theory. On oxidation of pure I optimal temperature 448-449°, air to I ratio (l/g) 20:1, contact time 4-6 seconds. Yield of

Card 1/2

USSR/Chemical Technology - Chemical Products and Their Application. Treatment of Solid Mineral Fuels, I-12

Abst Journal: Referat Zhur - Khimiya, No 19, 1956, 62536

Abstract: acidic products recomputed as II, 69.8-71.9%. Acidic products consist on the average of 86% II and 14% maleic anhydride (III). On oxidation of redistilled, washed anthracene fraction, boiling range 310-345°, yield of acidic products on the basis of I is 112.22% of which 78.90% is II and the remainder III. In addition there are obtained 62.7% anthraquinone on the basis of theoretically calculated amount of anthracene present in the fraction. By boiling with 5% alkali and sublimation an anthraquinone MP 286° is obtained which does not depress the melting point of pure synthetic anthraquinone and has identical other characteristics with the latter. Yield of acidic products on catalytic oxidation of unwashed first anthracene fraction is 287.51% of the theoretically calculated on the basis of the phenanthrene; 188.14% of these are II and the remainder III. In addition there is obtained a 42.54% yield of anthraquinone on the basis of the anthracene. Large yield of acidic products on oxidation of anthracene fractions, exceeding greatly their yield from pure I confirms the proposition concerning the advantages of composite utilization of a number of compounds in mixtures for the purpose of obtaining the same product.

Card 2/2

Golub, A.I.
GOFMAN, N.Y.; GOLUB, A.I.

Catalytic oxidation of basic polycyclic compounds of coal tar and
some of its fractions. Zhur.prikl.khim. 29 no.8:1256-1265 Ag '56.
(MIRA 10:10)

1.Vostochnyy nauchno-issledovatel'skiy uglekhimicheskiy institut.
(Oxidation) (Coal tar) (Phthalic anhydride)

AUTHOR: Golub, A. I.

68-58-7-13/27

TITLE: Catalytic Vapour Phase Oxidation of Naphthalene and Naphthalene Fraction (Kataliticheskoye parofaznoye okisleniye naftalina i naftalinovoy fraktsii)

PERIODICAL: Koks i Khimiya, 1958, Nr 7, pp 44-47 (USSR)

ABSTRACT: As the catalytic oxidation of pressed naphthalene and naphthalene fraction was not tested on Soviet works, while the former process has been successfully operated for many years abroad and the latter process for a few years in Sweden, an experimental oxidation of pressed naphthalene using Soviet catalyst (used for the oxidation of crystalline naphthalene) was carried out. The work was considered as a preliminary stage for the industrial experiments on the oxidation of naphthalene fraction. The results obtained indicated that no difficulties in oxidation of pressed naphthalene should arise. The yield obtained was 76% of phthalic and 5% of maleic anhydride (of the theoretical). For further investigations of the oxidation of various individual compounds and technical products derived from tar, a larger pilot plant was designed of a throughput of 8 kg/day Card 1/2 (Figure). Crystalline and pressed naphthalene and

68-58-7-13/27
Catalytic Vapour Phase Oxidation of Naphthalene and Naphthalene
Fraction

naphthalene fraction were successfully oxidised on this
plant with a 70% yield of technical anhydride, i.e. with
a yield about 10% lower than on industrial plants (the
results obtained are assembled in the table).
There are 1 table, 1 figure and 7 references, 6 of which
are Soviet, 1 German.

ASSOCIATION: VUKHIN

1. Naphthalenes--Oxidation
2. Catalysis--Applications

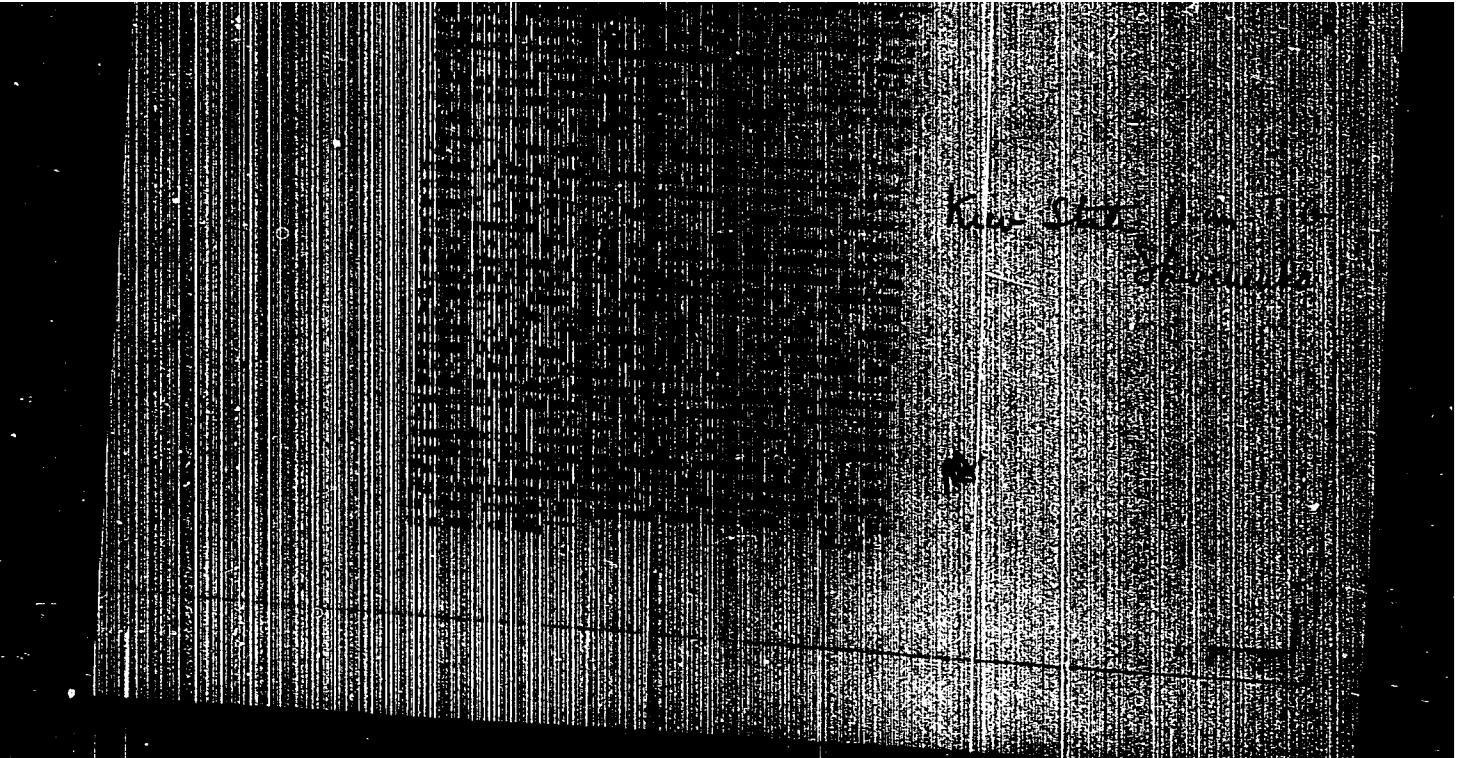
Card 2/2

FAYTNEV, A.I., kand. tekhn. nauk; GOLINB', A.I., inzh.; RUMNEV, D.D.,
inzh.

Construction and use of portable tachometer devices with a
high class of accuracy. Energ. i elektrotell. prom. no.4:34-37
05 '63. (MIRA 17:10)

GOLUB, A.I., inzh.

Mechanization of the horizontal turn of a crane hook. Mashino-
stroenie no. 6299-100 N-D '64 (MIRA 1822)



GOLUB, A.M.

Origination of chemistry as a science. Ukr.khim.shur. 20 no.3:325-
334 '54. (MLBA 7:8)

1. Kiyevskiy gosudarstvennyy universitet im. T.O.Shevchenko.
(Chemistry--History)

606 UB, AM

USSR/ Inorganic Chemistry. Complex Compounds

C.

Abs Jour : Referat Zhur - Khimiya, No 4, 11446

Author : Golub A.M.

Title : Physicochemical Study of Complex Silver Thiocyanates

Orig Pub : Zh. obshch. khimii, 1956, 26, No 7, 1837-1848

Abstract : Potentiometrically and by the method of solubility in aqueous and anhydrous solvents has been ascertained the predominant formation within the region of medium and high CNS⁻ concentrations of the complex (AgCNS)₃⁻ having the dissociation constant $2.86 \cdot 10^{-11}$ at 20°, $3.56 \cdot 10^{-10}$ at 40° and $5.36 \cdot 10^{-9}$ at 60°, and a heat of formation ~ 25.5 kcal at 20-60°. Equilibrium constant has been calculated for the reaction $AgCNS_{(solid)} + n CNS^- = Ag(CNS)_{n-1}^-$ in water and acetone solutions (mean value 0.145) and the solubility product of AgCNS in aqueous solutions ($4.14 \cdot 10^{-12}$). It is shown that in acetone solution, in contradistinction to an aqueous, there is formed $Ag(CNS)_2^-$. A molecular compound $KCNS \cdot AgCNS \cdot 3(CH_3)_2CO$ has been isolated. The conclusion is reached that complex-formation exercises greater influence on magnitude of equilibrium electrode potential than nature of solvent.

1/1

Golub A.M.

USSR/Physical Chemistry, Thermodynamics, Thermochemistry, Equilibriums, Phys-Chem, Anal-is, Phase-Transitions.

B-8

Abs Jour : Ref Zhur - Khimiya, No 7, 1957, 22331.

Author : A. M. Golub, G. N. Kilimnik.

Inst : ~~Inst~~ *Not given*

GOLUB, A.M.

GOLUB, A.M.; BILYK, O.G.

Investigating the thiocyanate complexes of cadmium. Report No.1:
Zhur. neorg. khim. 2 no.12:2723-2733 D '57. (MIRA 11:2)

1. Kiyevskiy gosudarstvennyy universitet im. T.G. Shevchenko i Labo-
ratoriya neorganicheskoy khimii.
(Cadmium thiocyanate)

GOLUB, A.M.

~~GOLUB, A.M.~~ [Golub, A.M.]

Development of chemistry of solutions. Nauk.zap.Kyiv.un. 16
no.15:13-29 '57. (MIRA 11:11)
(Solution (Chemistry))

GOLUB, A.M. [Golub, A.M.]; TSITSURINA, T.I. [TSytsuryna, T.I.]

Mercury rhodanine complexes. *Nauk.sop.Kyiv.un.* 16 no.15:101-107
157. (MIRA 11:11)
(Mercury organic compounds) (Rhodanine) (Complex compounds)

Golub, A. M.

AUTHOR: Golub, A. M. and Samcylenko, V. K.

73-1-4/26

TITLE: Thiocyanate Complexes of Lead. I. Formation of the Simplest Complexes. (Rodanidnyye Kompleksy Svintsa. I. Obrazovaniye Prosteyshikh Kompleksov.)

PERIODICAL: Ukrainskiy Khimicheskiy Zhurnal, 1957, Vol.23, No.1, pp. 17 - 21 (USSR).

ABSTRACT: Thiocyanate compounds resemble halides in many ways, but can be investigated only with difficulty, in which sense they differ from lead halide complexes. The simpler thiocyanate complexes quoted in literature include $Pb(CNS)_2$, $Pb(CNS)Cl$ and $Pb(CNS)Br$ (viz. (1): Herty, G. H., and Boggs, F. R; J. Am. Chem. Soc. 1897, Vol. 19, 820.) It can be assumed that complex groups consisting of thiocyanate ions and lead ions must be formed in the ratio 1:1, 2:1, etc. as was shown by Golub, A. M. (Naukovi Zapiski KDY, Khim. Zbirnik, No.6, Vol.7, 1955). Investigations were carried out in the systems Pb^{2+} , $CNS^- - H_2O$. Experiments were carried out now in limits of concentrations of CNS^- ions from 0.00548 to 0.1161-mol potentiometrically and spectrophotometrically. The existence of the complex groups $Pb(CNS)_2$ and $Pb(CNS)_3^-$ was confirmed by measuring the optical density (graph 1). The $Pb(CNS)_4^{2-}$ and $Pb(CNS)_2$ groups were

Card 1/2

Thiocyanate Complexes of Lead.I: Formation of the Simplest Complexes. 73-1-4/26

revealed by potentiometric measurement; these exist in regions of low concentrations. Dissociation constants of these complexes were calculated and are tabulated in table I. The heat effect of reactions during the formation of the complexes $PbCNS^+$ at temperatures between 20 - 40° C. are evaluated and tabulated (at 40° C) (table 2.) At higher temperatures (40° C) the $PbCNS^+$ complex prevailed. Higher temperatures (up to 60° C) cause disintegration. There are 2 tables, 3 graphs, 5 references, 3 of which are Slavic.

SUBMITTED: April, 30, 1956.

ASSOCIATION: Kiyev State University, imeni T. G. Shevchenko.
(Kiyevskiy Gosudarstvennyy Universitet im. T.G. Shevchenko.)

AVAILABLE: Library of Congress

Card 2/2

GOLOB, Andrey Matyevich [Golub, A.M.], kand.khimichnykh nauk; DMITRIK, Semen Yakovlevich [Dmytryk, S.IA]; PILIPENKO, A.T., red.

[Rare and dispersed elements and their importance in the national economy] Riddkisi i rossiani elementy ta ikh znachennia v narodnomu hospodarstvi. Kyiv, 1958. 43 p. (Tovarystvo dlia poshyrennia politychnykh i naukovykh znan' Ukrain's'koi RSR. Ser. 4, no.10).
(Chemical elements) (MIRA 12:2)

AUTHOR: Golub, A. M. S07/156-58-4-18/49

TITLE: The Formation of Selenocyanate Complexes of Silver With Higher Coordination Number in the Solution (Obrazovaniye selenotsianatnykh kompleksov serebra vysshey koordinatsii v rastvore)

PERIODICAL: Nauchnyye doklady vysshey shkoly. Khimiya i khimicheskaya tekhnologiya, 1958, Nr 4, pp 685-689 (USSR)

ABSTRACT: By the potentiometric method the formation of the selenocyanate complex of silver in aqueous solutions within the range of medium concentrations (0.3-1.5 mol/l KCNSe) was investigated. Under such conditions mainly the complex $[\text{Ag}(\text{CNSe})_3]^{2-}$ is formed. In mixed aqueous acetone solutions (6-7 mol/l acetone) the complex $[\text{Ag}(\text{CNSe})_4]^{3-}$ is easily formed. Salts in crystalline state with the following anions were produced: $[\text{Ag}(\text{CNSe})_2]^-$, $[\text{Ag}(\text{CNSe})_3]^{2-}$ and $[\text{Ag}(\text{CNSe})_4]^{3-}$. New salts of the silver selenocyanate complex were isolated with potassium: $\text{KAg}(\text{CNSe})_2$, $\text{KAg}_2(\text{CNSe})_3$, $\text{K}_2\text{Ag}(\text{CNSe})_3$, $\text{K}_3\text{Ag}(\text{CNSe})_4$. The salt

Card 1/2

The Formation of Selenocyanate Complexes of Silver With Higher Coordination
Number in the Solution

SOV/156-58-4-18/49

$KAg_2(CNSe)_3$ is decomposed on heating without melting. On heating above $400^\circ C$ the compound $KAg_2(CNSe)_3$ is converted into $KAg(CNSe)_2$. The salt $K_3Ag(CNSe)_4$ was isolated in slow crystallization in the vacuum exsiccator on P_2O_5 in the form of colorless crystals. This salt can also be produced from acetone solutions by mixing $AgCNSe$ and $KCNSe$ at a ratio of 1:3. It was confirmed that in working with solvents more active than water the coordination number of the complexes increases. There are 4 figures and 6 references, 5 of which are Soviet.

ASSOCIATION: Kafedra neorganicheskoy khimii Kiyevskogo gosudarstvennogo universiteta im. T. G. Shevchenko (Chair of Inorganic Chemistry at the Kiyev State University imeni T. G. Shevchenko)

SUBMITTED: March 10, 1958

Card 2/2

5(2)

AUTHOR:

Golub, A. M.

SOV/153-58-6-3/22

TITLE:

On Nomenclature in Inorganic Chemistry (O nomenklature v neorganicheskoy khimii)

PERIODICAL:

Izvestiya vysshikh uchebnykh zavedeniy. Khimiya i khimicheskaya tekhnologiya, 1958, Nr 6, pp 14-19 (USSR)

ABSTRACT:

The problem mentioned in the title is among the most burning ones in theoretical chemistry. Major reforms in the field of chemistry have always been accompanied by a new classification of substances and by a change in the bases of nomenclature. As chemistry is an international science, it is only natural that its language should not be removed from the science itself, and that it should not lose contact with the principles that have been established therein with regard to definitions. In the drawing up of a national nomenclature care must be taken to avoid isolationism. The achievements of international science must not be pushed aside in so important a matter as is that of nomenclature. At the same time, however, the national nomenclature also has to take account of the peculiarities of the national language. It is necessary that the term for any given substance should readily illustrate both the composition and the nature

Card 1/3

On Nomenclature in Inorganic Chemistry

SOV/153-58-6-3/22

of the substance concerned. The Russian nomenclature in inorganic chemistry, as it is used today, in many respects falls short of these requirements. Whereas, in the thirties efforts were being made (Ref 2) to adjust the Russian nomenclature to the international one, there has of late been an increasing tendency to revert to 19th century Russian nomenclature, which, in fact, is nothing but a slightly modified German system. However, international nomenclature is not entirely flawless either (Refs 4-6, 17). In the paper under consideration the author restricts himself to a treatment of the acids, salts, and complex compounds, as the other substances have been dealt with on a previous occasion (Ref 6). The rest of the paper is subdivided as follows: acids and salts; terminology of the acid-, basic-, and thio-salts; complex and molecular compounds; terminology of compounds with a complex anion, compounds with a complex cation, molecular compounds with an unusual element valency, and finally double salts and double complexes. Numerous examples of obscure or confusing terms are quoted in respect of all the categories enumerated, and in many cases improvements are suggested. There are 22 references, 16 of which are Soviet.

Card 2/3

On Nomenclature in Inorganic Chemistry

SOV/153-58-6-3/22

ASSOCIATION: Kiyevskiy gosudarstvennyy universitet imeni T. G. Shevchenko,
Kafedra neorganicheskoy khimii (Kiyev State University
imeni T. G. Shevchenko, Chair of Inorganic Chemistry)

SUBMITTED: September 17, 1957

Card 3/3

AUTHORS:

Golub, A. M.
Golub, A. M., Ivanchenko, G. D.

1958/43

TITLE:

I. Investigation of the Zinc-Thiocyanate Complex in a Solution
(I. Izucheniye rodanidnykh kompleksov tsinka v rastvore)

PERIODICAL:

Zhurnal Neorganicheskoy Khimii, 1958, Vol.3, Nr 2, pp.333-338
(USSR)

ABSTRACT:

A suitable method for the production of $Zn(CNS)_2$ was worked out and investigations of its property were performed. Zinc-thiocyanate has the following composition: Zn - 36,01 %, CNS - 63,99 %. Zinc-thiocyanate is easily soluble in water and the solubility increases with increasing temperature. In benzene and dioxane it is insoluble. In acetone and absolute alcohol it is little soluble (0,8 mol/l). In a temperature interval of 210-225°C $Zn(CNS)_2$ melts with the beginning of decomposition. By the determination of the electric conductivity of the mixture $KCNS-Zn(CNS)_2$ in alcoholic solutions the assumption is expressed that the complex $K[Zn(CNS)_3]$ is present here. The investigations in aqueous solutions take a

Card 1/2

I. Investigation of the Zinc-Thiocyanate Complex in a Solution 78-2-13/43

negative course, as the zinc-thiocyanate complex is unstable. For investigations of the system KCNS-Zn(CNS)_2 in acetone solutions isomolar initial solutions of 0,2 mol/l were used. The complex $\text{K}_2[\text{Zn(CNS)}_4]$ is determined in an acetone solution by the determination of electric conductivity. The complex-solutions were also investigated by potentiometric methods. As indicator-electrode the authors used zinc-amalgam opposite a saturated calomel-electrode. The results in aqueous solutions showed the presence of the following complexes: ZnCNS^+ , Zn(CNS)_2 , Zn(CNS)^{1-} and Zn(CNS)_4^{2-} . The dissociation constants of these four complexes as well as the thermal effect in the formation of the Zn(CNS)_4^{2-} complex in the solution, which amounts to 5,7 cal, were also determined. There are 3 figures, 5 tables, and 15 references 7 of which are Slavic.

SUBMITTED: December 30, 1956

AVAILABLE: Library of Congress

Card 2/2

GOLUB, A.M. [Golub, A.M.], kand.khim.nauk; KHAMARDYUK, K.A.

Selenium. Nauka i shtytia 8 no.10:13-15 '58. (MIRA 13:4)
(Selenium)

GOLUB, A.M.

Ukrainian terminology and nomenclature in inorganic chemistry.
Ukr. khim. zhur. 24 no.1:118-129 '58. (MIRA 11:4)

1. Kiyevskiy gosudarstvennyy universitet im. T.G. Shevchenko.
(Ukraine--Chemistry, Inorganic--Terminology)

SOV/20-120-6-25/59

AUTHOR:

Golub, A. M.

TITLE:

The Influence of the Solvent on the Coordination Interaction and the Effect of the "Negative Complex Formation" (Vliyuniye rastvoritelya na koordinatsionnoye vzaimodeystviye i effekt "otritsatel'nogo kompleksobrazovan-ya")

PERIODICAL:

Doklady Akademii nauk SSSR, 1958, Vol. 120, Nr 6, PP.1255-1258 (USSR)

ABSTRACT:

As it was proved earlier (Ref 1) the character of the complex formation in the presence of medium concentrations of solvents such as alcohol, acetone, and dioxane remains unchanged in aqueous systems as well as in pure aqueous solutions. Higher concentrations, however, may considerably reduce the reaction of complex formation (Ref 2). In order to explain this latter influence the authors studied the system $Cd^{2+} - CN - H_2O$ dioxane potentiometrically. Before investigating the solutions it was found that cadmium nitrate and cadmium perchlorate are easily soluble in dioxane. Therefore, it could be expected that cadmium ions form complexes with dioxane in the presence of water. This, however, will probably

Card 1/3

SOV/20-120-6-25/59
The Influence of the Solvent on the Coordination Interaction and the Effect
of the "Negative Complex Formation"

not disturb the determination of the composition of cadmium thiocyanate complexes. On Tables 1 - 3 the values of the dissociation of the complexes are given which dominate in a certain range of concentration of the complex former. As can be seen from Table 1 and Fig 1 the complex $Cd(CNS)_3^-$ appears already at 2,5 mols of dioxane, i.e., more easily than in an aqueous solution. Moreover, a complicated complex $Cd(CNS)_4^{2-}$ is observed in a mixed solution with 2,5 mols of dioxane.⁴ In the case of still higher dioxane concentrations (Tables 2, 3) also the complex $Cd(CNS)_6^{4-}$ was observed. Thus, the introduction of dioxane extends, so to speak, the possibilities of the coordination of cadmium. At first sight this would be contradictory to the formation of molecular compounds of dioxane and cadmium salts. In order to find a definite solution of this problem the author also carried out potentiometric measurements in the system $Cd^{2+} - H_2O - Dy$ (where Dy denotes dioxane). The results are given on Table 4. Instead of the expected reduction of the values of the electrode potentials a slight increase could be noticed. From this follows that no complex groups of cadmium with dioxane

Card 2/3

GOLUB, Andrey Matveyevich [Golub, A.M.], KUCHERENKO, N.I., kand.khim.
nauk. stv.red.; LEONT'YEV, P.D., red.; BELYASNA, O.Ye. [Baliasna,
O.I.], red.; GHALA, O.O., tekhn.red.

[Methods of classification and terminology in inorganic chemistry]
Systematyka i terminologiya v neorganichnoi khimii. Kyiv, Vyd-vo
Kyivs'koho univ., 1959. 147 p. (MIRA 13:1)
(Chemistry, Inorganic--Nomenclature)

GOLUB', A.M. [Golub, A.M.]

Investigation of metal perchlorates. Visnyk Kyiv.un.no.2.Ser.fiz.ta.
khim. no.1:105-107 '59. (MIRA 14:8)
(Perchlorates)

5. 2200

27691
S/081/60/000/004/002/008
A166/A129

AUTHOR: Golub, A. M.

TITLE: Investigation into metal perchlorates. The preparation of anhydrous perchlorates of heavy metals

PERIODICAL: Referativnyy zhurnal. Khimiya, 1960, no. 4, 109, abstract 12877.
(Visnyk Kyivsk. un-tu, 1959, no. 2, ser. fiz. ta khimiyi, no. 1, 105 - 107)

TEXT: For theoretical considerations a new method of obtaining anhydrous perchlorates (and nitrates) of heavy metals by the introduction of non-aqueous solvents containing oxygen donor atoms (dioxane, acetone) is proposed. The hypothesis is advanced that medium bismuth perchlorate could be extracted from a mixed water-dioxane or water-acetone solution. The conclusion is that the perchlorates (and nitrates) of heavy metals form molecular compounds with dioxane.

Author's summary

[Abstracter's note: Complete translation]

Card 1/1

5(2)

AUTHORS:

Golub, A. M., Pomeranta, G. B.

SOV/78-4-4-11/44

TITLE:

Complex Silver Selenocyanates (Kompleksnyye selenotsianaty srebra)

PERIODICAL:

Zhurnal neorganicheskoy khimii, 1959 Vol 4, Nr 4, pp 769-774 (USSR)

ABSTRACT:

The potentiometric method was used to investigate the conditions needed for preparing complex silver selenocyanates in aqueous and acetone-water solutions at 20°. The complexes $\text{Ag}(\text{CNSe})_3^{2-}$ and $\text{Ag}(\text{CNSe})_4^{3-}$ were determined. The dissociation constants of these compounds at 20° were determined:
 $\text{Ag}(\text{CNSe})_3^{2-}$: $K = 1.61 \cdot 10^{-14}$ (in aqueous solution) and $2.6 \cdot 10^{-15}$ (in acetone-water solution). $\text{Ag}(\text{CNSe})_4^{3-}$: $K = 1.57 \cdot 10^{-15}$ (in acetone-water solution). At higher concentrations of the complex-former KCNSe in acetone-water solution the complex ion $\text{Ag}(\text{CNSe})_4^{3-}$ forms. The solubility of AgCNSe in the presence of KCNSe ions in aqueous and alcoholic solution was

Card 1/2

Complex Silver Selenocyanates

SOV/78-4-4-11/44

investigated. Crystals form after some time in saturated solutions of silver selenocyanate in the presence of potassium selenocyanate. Fine crystals precipitate from acetone-water solutions with an excess of potassium selenocyanate. Analyses of these crystals indicated the composition $KAg_2(CNSe)_3$. The salt is stable in the air, is difficultly soluble in water, but easily soluble in aqueous solutions of sodium thiosulfate and potassium selenocyanate. Three tables summarize the results of the potentiometric measurements at a) constant silver concentration, b) constant concentration of selenocyanate ion, and c) constant acetone concentration. There are 4 figures, 3 tables, and 8 references, 5 of which are Soviet.

ASSOCIATION:

Kiyevskiy gosudarstvennyy universitet im. T. G. Shevchenko
Kafedra neorganicheskoy khimii (Kiyev State University imeni
T. G. Shevchenko, Chair of Inorganic Chemistry)

SUBMITTED:

July 10, 1957

Card 2/2

5(4)

AUTHORS:

Golub, A. M., Kosmatyy, Yu. V.

SOV/78-4-6-22/44

TITLE:

The Potentiometric Investigation of Lead Selenium Cyanates
(Potentsiometricheskoye issledovaniye selenotsianatov svintsa)

PERIODICAL:

Zhurnal neorganicheskoy khimii, 1959, Vol 4, Nr 6, pp 1347-1351
(USSR)

ABSTRACT:

The lead selenium cyanate complexes were investigated in aqueous and mixed solutions. The potentiometric method was used for the determination of the stability and composition of these complexes. The composition of the complex is not changed in aqueous solution in the case of constant and changing ionic concentration of the solution. The complex has the composition

$\text{Pb}(\text{CNSe})_6^{4-}$. The dissociation constant, the complex formation reaction, and the thermal effect of this complex were detected at 20° and 30°. The dependence of the

$$\log \frac{[\text{Pb}(\text{CNSe})_x]}{[\text{Pb}^{2+}]}$$

on the $\log [\text{CNSe}^-]$ in the aqueous solution is given in figure 1. The influence of the solvent on the formation of the lead selenium cyanate complexes was investigated and the results

Card 1/2

The Potentiometric Investigation of Lead Selenium Cyanates SOV/78-4-6-22/44

of the mixed solutions are given in the tables 2 and 3. It was found that the stability of the complex is increased by the addition of acetone. The increase of the acetone concentration complicates the composition of the complex. It is possible that the complex $Pb(CNSe)_8^{6-}$ is formed by a higher

acetone concentration. The dependence of the

$\log \frac{[Pb(CNSe)_x]}{[Pb^{2+}]}$ on $\log [CNSe^-]$ in the mixed aqueous-acetone

solution was investigated at 20° and given in figure 2. There are 2 figures, 3 tables, and 7 references, 5 of which are Soviet.

ASSOCIATION: Kiyevskiy gosudarstvennyy universitet im. T. G. Shevchenko (Kiyev State University imeni T. G. Shevchenko). Kafedra neorganicheskoy khimii (Chair of Inorganic Chemistry)

SUBMITTED: March 25, 1958

Card 2/2

SOV/78-4-6-23/44

5(4)

AUTHORS: Golub, A. M., Kilimnik, G. M.

TITLE: On the Problem of the Coloration of the Copper Thiocyanate Complex in Solution (K voprosu ot okraske rodanidnykh kompleksov medi v rastvore)

PERIODICAL: Zhurnal neorganicheskoy khimii, 1959, Vol 4, Nr 6, pp 1352-1358 (USSR)

ABSTRACT: Spectrophotometric investigations were carried out in aqueous and alcoholic KCNS-CuCNS-solutions, aqueous $\text{Cu}(\text{ClO}_4)_2$ -solution, alcoholic solution of $\text{Cu}(\text{CNS})_2$, CuCl-LiCl and $\text{Cu}(\text{CNS})_2\text{-KCNS}$ in acetone medium. The results are given in the figures 1 and 2. It was found that the red color in recently produced $\text{Cu}(\text{CNS})_2\text{-KCNS}$ -solution is equal to that of a longer stored CuCNS-KCNS acetone solution. The alcoholic $\text{Cu}(\text{CNS})_2$ solution has a yellow color. The compound $\text{Cu}(\text{CNS})_2$ is decomposed by the addition of acetone under the separation of monovalent copper thiocyanate. It is assumed that the coordination structure of the thiocyanate ion and the copper ion in the acetone solution is changed and that a donor-acceptor interaction

Card 1/2

SOV/78-4-6-23/44
On the Problem of the Coloration of the Copper Thiocyanate Complex in
Solution

takes place between the central atom and the acetone molecules.
A colorless crystalline salt of the composition $K_2Cu(CNS)_3$
was isolated from an acetone solution (Fig 3). The crystals
are easily solved in acetone, the salt decomposes in water.
The crystals decompose only partly in alcohol. The crystals
melt by heating at $55^\circ - 165^\circ$, and decompose at $220^\circ - 230^\circ$
under production of gaseous substances. There are 3 figures
and 8 references, 4 of which are Soviet.

ASSOCIATION: Kiyevskiy gosudarstvennyy universitet im. T. G. Shevchenko
(Kiyev State University imeni T. G. Shevchenko).
Kafedra neorganicheskoy khimii (Chair of Inorganic Chemistry)

SUBMITTED: March 26, 1958

Card 2/2

5(2)

AUTHOR:

Golub, A. M.

SOV/78-4-7-17/44

TITLE:

Investigation of the Selenocyanate Complexes of Lead by the Solubility Method (Issledeniye selenotsianatnykh kompleksov svintsa metodom rastvorimosti)

PERIODICAL:

Zhurnal neorganicheskoy khimii, 1959, Vol 4, Nr 7, pp 1577-1581 (USSR)

ABSTRACT:

On the basis of one of the author's earlier papers (Ref 1) the following rule was deduced for iodide-, thiocyanate- and selenocyanate complexes: $MeA_k + nKA \rightleftharpoons K_n MeA_{k+n}$, where MeA_k is a difficultly soluble salt, KA and $K_n MeA_{k+n}$ two easily soluble salts. In stable complexes n has a low value (1 or 1/2), in non-stable complexes its highest value indicates high coordination numbers. On the basis of these rules it was assumed that in the system $Pb(CNSe)_2 - KCNSe$, aqueous solutions, in which Pb -complexes show little stability, must contain $Pb(CNSe)_6^{4-}$ -ions, whereas in acetone solutions, in which the complexes are more stable, $Pb(CNSe)_3^-$ -ions must be found to occur.

Card 1/2

Investigation of the Selenocyanate Complexes of Lead by the Solubility Method SOV/78-4-7-17/44

Experimental results (table 1 and figure 1 acetone solutions, table 2 and figure 2 aqueous solutions) confirm this expectation and thus also the rule set up. Investigation of the properties of the initial substance $Pb(CNSe)_2$ was carried out in collaboration with Yu. Ye. Kosmatyy. If complex solutions are stored over longer periods, shiny black films are formed on the glass walls, which are said to be due to photolysis. It was possible to crystallize the salt $KPb(CNSe)_3$ from the acetone solution, and the salt $K_4Pb(CNSe)_6$ from a water-acetone solution. The microphotographs of the two salts are given by figure 3. There are 3 figures, 2 tables, and 5 Soviet references.

ASSOCIATION: Kiyevskiy gosudarstvennyy universitet im. T. G. Shevchenko, Kafedra neorganicheskoy khimii (Kiyev State University imeni T. G. Shevchenko, Chair of Inorganic Chemistry)

SUBMITTED: March 25, 1958

Card 2/2

GOLUB, A.M.; ROMANENKO, L.I.; SANOYLENKO, V.M.

Lead rhodanide complexes. Part 2: Composition and stability of anion complexes. Ukr.khim.zhur. 25 no.1:50-54 '59.

(MIRA 12:4)

1. Kiyevskiy gosudarstvenny universitet im. T.G. Shevchenko, kafedra neorganicheskoy khimii.

(Lead thiocyanate)

SEFANOVA, Ol'ga Sergeyevna; BOGATSKIY, Aleksey Vsevolodovich;
GOLUB, A.M., otv.red.; TUBOLEVA, M.v., red.

[Chemistry in the service of people] Khimiya na sluzhbe naroda.
Kiev, 1960. 31 p. (Obshchestvo po rasprostraneniyu politicheskikh
i nauchnykh znaniy Ukrainskoi SSR. Ser.5, no.12)

(MIRA 14:2)

(Chemistry)

GOLUB, Andrey Matveyevich [Golub, A.M.], kand.khim.nauk; PETROSENKO,
KHITOLIIY HIRSHIYEVICH [Petrusenko, A.M.], kand.filosof.nauk;
SOLOMKA, V.P., kand.khim.nauk, glavnyy red.

[D.I.Mendeleev's periodic law is a fundamental law of nature]
Periodychnyi zakon D.I.Mendelieieva - fundamental'nyi zakon
pryrody. Kyiv, 1960. 56 p. (Tovarystvo dlia poshyrennia
politychnykh i naukovykh znan' Ukraini'koi RSR. Ser.5, no.3-4).
(MIRA 13:7)

(Periodic law)

AUTHORS:

Golub, A. M., Kostrova, R. A.S/078/60/005/03/039/048
B004/B005

TITLE:

Investigation of Complex Formation in the System $VO^{2+} - CNS^-$ - Solvent

PERIODICAL:

Zhurnal neorganicheskoy khimii, 1960, Vol 5, Nr 3, pp 726-730 (USSR)

ABSTRACT:

The object of the present paper was the determination of more complicated complexes than the known $VO(SCN)^+$. At first, the authors report on the investigation of the electrical conductivity in the system $VO^{2+} - CNS^-$ - solvent. Water, and water + 50% of acetone, were used as solvents. The conductivity was measured according to Kohlrausch's method. An EO-7 oscillograph was used as null instrument, a generator of type ZG-10 as current source. Figure 1 shows that with increasing ion concentration the conductivity changes monotonously. The deviation from the additivity (diagram $\Delta \kappa$, composition, Fig 2) shows indistinct maxima which are ascribed to the complexes $VO(SCN)^+$ and $VO(SCN)_2$. These complexes are little stable so that the investigation of the conductivity yielded no clear results. Therefore, the system was investigated by an SF-4 spectrophotometer in the wave band 320-1000 μ in aqueous solution as well

Card 1/2

Investigation of Complex Formation in the System
 VO^{2+} - CNS^- - Solvent

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B004/B005

as in solutions of water with 25, 50 and 75% of acetone. Figure 3 shows the absorption curves for $\text{VO}(\text{ClO}_4)_2$ and $\text{VO}(\text{ClO}_4)_2 + \text{NaCNS}$, figure 4 the dependence of the optic density on the composition. The varying course of the two absorption curves suggests a complex formation. In aqueous solution, the complexes VOCNS^+ and $\text{VO}(\text{CNS})_2$ are formed. An addition of nonaqueous solvents leads to a displacement of the water molecules from the inner sphere, and to a formation of anion complexes including $\text{VO}(\text{CNS})_4^{2-}$. There are 4 figures and 5 references, 2 of which are Soviet.

SUBMITTED: December 16, 1958

Card 2/2

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B004/B016

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AUTHORS: Golub, A. M., Romanenko, L. I.TITLE: The Influence Exercised by the Nature of the Solvent Upon the Formation of Thiocyanate Complexes of Bivalent Mercury

PERIODICAL: Zhurnal neorganicheskoy khimii, 1960, Vol. 5, No. 5, pp. 1085-1089

TEXT: The authors made a potentiometric investigation of the thiocyanate complexes of mercury which form in pure non-aqueous solvents or at high concentrations of such solvents in water. Acetone and methanol were used as solvents. The equilibrium constant for $\text{Hg}^{2+} + \text{Hg} \rightleftharpoons \text{Hg}_2^{2+}$ was determined. The composition of the complexes resulted graphically from the diagrams $\lg \text{Hg}^{2+}$, $\lg \text{CNS}$ (Figs. 1-4). The experimental data are presented as follows: value of $K = \frac{[\text{Hg}_2^{2+}]}{[\text{Hg}^{2+}]}$ in the various solvents (Table 1); potentiometric investigation of the system $\text{Hg}^{2+} - \text{CNS}^- - \text{H}_2\text{O} - \text{CH}_3\text{OH}$ (Table 2); system $\text{Hg}^{2+} - \text{CNS}^- - \text{H}_2\text{O} - \text{CH}_3\text{COCH}_3$ (Table 3); system $\text{Hg}^{2+} - \text{CNS}^- - \text{CH}_3\text{OH}$ (Table 4), and system $\text{Hg}^{2+} - \text{CNS}^- - \text{H}_2\text{O}$ (Table 5). The statement made by A. I. Pozigun (Ref. 3) that the anion complexes of mercury with

Card 1/2

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The Influence Exercised by the Nature of the Solvent
Upon the Formation of Thiocyanate Complexes of
Bivalent Mercury

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B004/B016

thiocyanate ions may possess the coordination number 6, was confirmed. With increasing concentration of the non-aqueous solvent the composition of the anions becomes more complicated up to $\text{Hg}(\text{CNS})_6^{4-}$, whereas in anhydrous solvents simpler complexes are formed. The $\text{Hg}(\text{CNS})_6^{4-}$ complexes form in aqueous solution at KCNS concentrations of between 2.4 and 3.4 moles/l. The dissociation constants of the complexes $\text{Hg}(\text{CNS})_4^{2-}$, $\text{Hg}(\text{CNS})_5^{3-}$, and $\text{Hg}(\text{CNS})_6^{4-}$ in the various solvents were calculated. There are 4 figures, 5 tables, and 5 references, 4 of which are Soviet. ✓

ASSOCIATION: Kiyevskiy gosudarstvennyy universitet im. T. G. Shevchenko
(Kiyev State University imeni T. G. Shevchenko)

SUBMITTED: September 28, 1958

Card 2/2

S/078/60/005/009/027/040/XX
B017/B058AUTHORS: Golub, A. M. and Skopenko, V. V.TITLE: Copper Selenocyanates ↗PERIODICAL: Zhurnal neorganicheskoy khimii, 1960, Vol. 5, No. 9,
pp. 1973 - 1976

TEXT: Copper selenocyanate complexes in acetone solutions were investigated by spectrophotometric and solubility determinations. The dependence of the solubility of copper (I) chloride on the concentration of KCNSe in acetone was ascertained, and the results are graphically represented in Fig. 1. The equilibrium constant of the complex $\text{KCu}(\text{CNSe})\text{Cl}$ was calculated as being 0.24. Spectrophotometric examination of copper selenocyanate complexes in acetone solutions shows that the following complexes may appear in the solution: $\text{CuCl}(\text{CNSe})^-$, $\text{Cu}(\text{CNSe})_2^-$, $\text{Cu}(\text{CNSe})_3^{2-}$ and $\text{Cu}(\text{CNSe})_4^{3-}$. The compounds $\text{KCu}(\text{CNSe})\text{Cl}$ and CuCNSe were isolated and their properties investigated. ✓

Card 1/2

Copper Selenocyanates

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B017/B058

The compound $KCu(CNSe)Cl$ is a colorless, finely crystalline powder which decomposes very easily in water and alcohol. The copper selenocyanate $CuCNSe$ is practically insoluble in water, acetone, or alcohol, and stable in a dry state at normal temperatures. This compound decomposes when heated. Copper selenocyanate is easily soluble in $KCNSe$ solutions under the formation of complexes. The solubility product of $CuCNSe$ at $20^{\circ}C$ amounts to $1.82 \cdot 10^{-10}$. The authors mention papers by V. F. Toropov, Yu. V. Karyakin, and I. I. Angelov. There are 2 figures, 1 table, and 8 Soviet references.

ASSOCIATION: Kiyevskiy gosudarstvennyy universitet im. T. G. Shevchenko
Kafedra neorganicheskoy khimii
(Kiyev State University imeni T. G. Shevchenko,
Chair of Inorganic Chemistry)

SUBMITTED: June 12 1959

Card 2/2

GOLUB, A.M. [Golub, A.M.], kand.khim.nauk

Founder of physicochemical analysis. Nauka i zhyttia 10 no. 12:40-41 D '50. (MIRA 14:4)

(Kurnakov, Nikolai Semenovich, 1860-1941)
(Chemistry, Analytical)

5.3700 2209, 1282, 1273

REF ID: A66217
S/071/60/020/004/009/018/XX
B023/B011

AUTHORS: Golub, A.M. and Romanenko, L.I.

TITLE: Rhodanide Complexes of Lead
3. Anion Complexes of Lead With the Coordination Number 6

PERIODICAL: Ukrainskiy khimicheskiy zhurnal, 1960, Vol. 26 No. 4.
pp. 418-422

TEXT: The authors of the present paper studied 1) the effect of the nitrate ions on the lead complex formation, 2) the actual value of the dissociation constant of rhodanide complexes, and 3) data on the isolation of the molecular lead rhodanides with the coordination number 6. To determine the composition and stability of the nitrate lead complexes, the solutions of lead perchlorate (with constant concentration) and sodium nitrate were potentiometrically investigated. A saturated calomel electrode served as reference electrode and lead amalgam as indicator. The $Pb(ClO_4)_2$ concentration was 0.01 M, that of sodium nitrate 0.2-2 M. The equilibrium electrode potentials were measured with the PPTV-1 potentiometer. The reduction of the lead electrode potential with in-
Card 1/3

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Rhoda~~n~~ide Complexes of Lead
3. Anion Complexes of Lead With the
Coordination Number 6

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B023/B064

creasing nitrate ion concentrations in the system $Pb^{2+} - NO_3^- - H_2O$ indicates the formation of lead nitrate complexes. The $PbNO_3^+$ composition was graphically determined on the basis of the potentiometric data. The dissociation constant was calculated and found to be fairly stable; it amounts to 0.16 on the average. V. M. Samoylenko assisted in investigating the nitrate lead complexes. Furthermore, a potentiometric investigation was made of the formation of the lead rhoda~~n~~ide complexes of the anion type at constant ionic strength of the solutions which was maintained with perchlorate ions. The formation of the anion complex $Pb(CNS)_2^-$ was confirmed and the actual value of its dissociation constant was found to be $1.85 \cdot 10^{-2}$ at an ionic strength of 6.5. On the basis of K.B. Yatsimirskiy's data and by means of the aforementioned constant, the solubility product of $Pb(CNS)_2$ was found to be $1.36 \cdot 10^{-7}$. The third problem was solved by crystallizing $KCNS \cdot Pb(CNS)_2$ from acetone. The analysis of the salt obtained yielded:

Card 2/3

86165

Rhodaide Complexes of Lead
3. Anion Complexes of Lead With
the Coordination Number 6

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P023/BC64

	Pb	CNS	K
composition	28.73, 29.10,	48.56, 48.94,	21.71% as compared with the theoretical 21.96% for $K_4Pb(CNS)_6$

Consequently the lead rhodaide complex with the coordination number 6 may be obtained not only in the solution, but also as molecular compound. There are 2 figures, 2 tables and 5 references: 3 Soviet and 2 US.

ASSOCIATION: Kiyevskiy gosudarstvennyy universitet (Kiyev State University) ✓

SUBMITTED: March 4, 1959

Card 3/3

SHEVCHENKO, F.D., kand. khim. nauk; GOLUB, A.M.[Holub, A.M.], kand.
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G.A., tekhn. red.

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kony khimii. Kyiv, Tovarystvo dlia poshyrennia polit. i nauk.
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LITINETSKIY, Isot Borisovich [Litynets'kyi, I.B.], kand. tekhn. nauk;
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Ser.6, no.7) (MIRA 14:9)
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Use of f curves in the comparative stability characteristics of
complexes. Dop.AN USSR no.7:932-934 '61. (MIRA 14:8)

1. Kiyevskiy gosudarstvennyy universitet. Predstavleno
akademirom AN USSR Yu.K.Delimerkin [Delimerkiyi, IU.K.].
(Complex compounds)

GOLUB, A.M.; SKOPITSKO, V.V.

Silver selenocyanate complexes in mixed and methanol solutions.
Zhur. neorg. khim. 6 no.1:140-143 '61. (M.A 14:2)

1. Kiyevskiy gosudarstvennyy universitet im. T.G.Shevchenko.
(Systems (Chemistry)) (Silver compounds)

GOLUB, A.H.; GRIDRENKO, F.F.

Potentiometric investigation of iodide complexes of silver in the
fused $\text{KNO}_3 - \text{NaNO}_3$ eutectic. Zhur.neorg.khim. 6 no.10:2344-2346
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(Silver iodide) (Potentiometric analysis)

GOLUB, A.M. RYMANENKO, L.I.

Thiocyanate complexes of lead. Part 4: Effect of indifferent ions on the composition of the complexes. Ukr. khim. zhur. 27 no. 1:11-16 '61. (MIRA 14:2)

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GOLUB, A.M.; SNOROBOGAT'KO, Ye.P.

Thiocyanate complexes of thallium (I). Report No. 2. Urk. khim.
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kafedra neorganicheskoy khimii.
(Thallium compounds)

GOLUB, A.M.] GOLODETS, G.I.

Crystalline double salts of lead iodide. Ukr. khim. zhur. 27
no12:138-141 '61. (MIRA 14:3)

1. Kiyevskiy gosudarstvennyy universitet im. T. G. Shevchenko,
kafedra neorganicheskoy khimii.
(Lead iodide)

GOLUB, A.M.; GOLOBETS, G.I.

Iodide complexes of lead in nonaqueous solvents. Ukr. khim. zhur. 27
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(Lead compounds)

GOLUB, A.M.; OGHYANIK, S.S.

Thiocyanide complexes of tin (II) Ukr.khim.zhur. 27 no.3:283-290
'61. (MIRA 14:11)

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(Tin compounds)
(Thiocyanic acid)