

PILIPCHUK, B.I.

Platinum resistance thermometer scale based on interval ratio.  
Trudy VNIIM no.25:103-110 '55. (MIRA 1116)  
(Thermometers) (Calibration)

PILIFCHUK, B.I.

Auxiliary charts for platinum resistance thermometers. Trudy VNIIM  
no.25:111-134 '55. (MIRA 11:6)

(Thermometers)

GORDOV, A.N., kand.fiz.-mat.nauk, red.; PILLIPCHUK, B.I., kand.tekhn.nauk, red.; KUZNETSOVA, M.I., red.; KONDRAT'YEVA, M.A., tekhn.red.

[Temperature measuring instruments and their testing; practical instructions] Pribory dlia izmerenlia temperatury i ikh poverka; instruktivnye materialy. Sbornik razrabotan VNIIM im. D.I. Mendeleeva. Moskva, Gos. izd-vo standartov "Standartgiz," 1957. 470 p. (MIRA 11:5)

1. Russia (1923- U.S.S.R.) Komitet standartov, mer i izmeritel'nykh priborov. (Temperature--Measurement)

PILIPCHUK, I. F.

Automatic starter of the starting generator. Bur.prom. No. 20.7:  
15-17 J1 '59. (MIRA 12:10)

1. Zhidachevskiy kartonno-bumazhnyy kombinat.  
(Papermaking machinery--Electric driving)

I, 24010-66 EWT(1) GW

ACC NR: AP6010430

(N)

SOURCE CODE: UR/0020/66/167/002/0430/0433

AUTHOR: Pilipchuk, M. F.; Volkov, I. I.

25  
B

ORG: Black Sea Scientific Research Experimental Station, Institute of Oceanology,  
Academy of Sciences, SSSR (Chernomorskaya eksperimental'naya nauchno-issledovatel'-  
skaya stantsiya Instituta okeanologii Akademii nauk SSSR)

TITLE: Tungsten in recent sediments of the Black Sea

SOURCE: AN SSSR. Doklady, v. 167, no. 2, 1966, 430-433

TOPIC TAGS: tungsten, sea water, ocean dynamics, ocean property

ABSTRACT: The object of the study was to determine the pattern of distribution of tungsten in recent sediments of the Black Sea. To this end, 192 samples of bottom sediments obtained at 192 stations were analyzed. The stations were uniformly distributed over the water area of the Black Sea and encompassed various types of samples. The data showed the tungsten content in the surface layer of the sediments to range rather widely: from  $1.2 \cdot 10^{-3}$  to  $16.1 \cdot 10^{-3}$  based on  $WO_3$ . In natural material, the highest tungsten content is found in aleurites. In carbonate-free matter, calcareous argillaceous sediments, which are free from the diluting effect of carbonates, showed the highest tungsten content. High tungsten concentrations are observed in both the sandy material of coastal areas and finely dispersed argillaceous material of the cen-

Card 1/2

UDC: 551.464.38

L 24010-66

ACC NR: AP6010430

tral regions of the basin. Maps of tungsten distribution were compiled. It is concluded that in the course of sedimentation, the behavior of tungsten in the Black Sea is controlled by processes of mechanical differentiation of the material. The distribution of tungsten depends on the modes of its migration and on the hydrodynamics of the sea. Tungsten associated with coarse material is deposited primarily in the coastal zones; tungsten associated with finely dispersed suspensions and Fe, Mn, Al and Si gels migrates according to the principles of hydrodynamics and deposits in fine sediments of the pelagic zones of the sea. The paper was presented by Academician N. M. Strakhov, on 24 December 1965. Orig. art. has: 2 figures, 1 table.

SUB CODE: 9/

SUBM DATE: 20Dec65/

ORIG REF: 008/

OTH REF: 002

Card 2/2 *plw*

L 09103-67 EWT(1)/EWT(m)/EWP(t)/ETI IJP(c) JD/JG/GW

ACC NR: AP7002373

SOURCE CODE: UR/0020/66/167/005/1143/1146

AUTHOR: Pilipchuk, M. F.; Volkov, I. I.

ORG: Black Sea Experimental Scientific Research Station, Institute of Oceanology,  
AN SSSR (Chernomorskaya eksperimental'naya nauchno-issledovatel'skaya stantsiya  
Instituta okeanologii AN SSSR)

TITLE: Distribution of molybdenum in recent black sea sediments

21

SOURCE: AN SSSR. Doklady, v. 167, no. 5, 1966, 1143-1146

TOPIC TAGS: oceanography, molybdenum compound

ABSTRACT: Very little data are available on the content of molybdenum in sea sediments. This paper gives data on the distribution of molybdenum in the recent sediments of the Black Sea. Samples were collected on a voyage of the "Akademik Vavilov"; 200 samples were collected at 192 stations, relatively uniformly covering the area of the Black Sea. The Mo content in this sea varies greatly: from 2 to 78.10-4% MoO<sub>3</sub>. Comparison of this figure with data for the Sea of Okhotsk shows that the quantity of Mo in the Black Sea is approximately an order of magnitude greater. The content varies from one type of bottom material to another. Two maps accompanying the text show the distribution of molybdenum in the different types of Black Sea sediments (in %); these patterns are interpreted in relation to bottom composition and entry of water into the sea from the rivers. Relationship to sea currents also is considered. This paper was presented by Academician N. M. Strakhov on 24 December 1965. Orig. art. has: 2 figures and 1 table. [JPRS: 37,710]

SUB CODE: 08 / SUBM DATE: 20Dec65 / ORIG REF: 007 / OTH REF: 001

Card 1/1 nat

UDC: 551.464.38

0925 0677

PILIPCHUK, N.

Improve payment and receiving planning. Den. i kred. 15 no. 9:42-44  
S '57. (MIRA 10:10)

(Banks and banking)

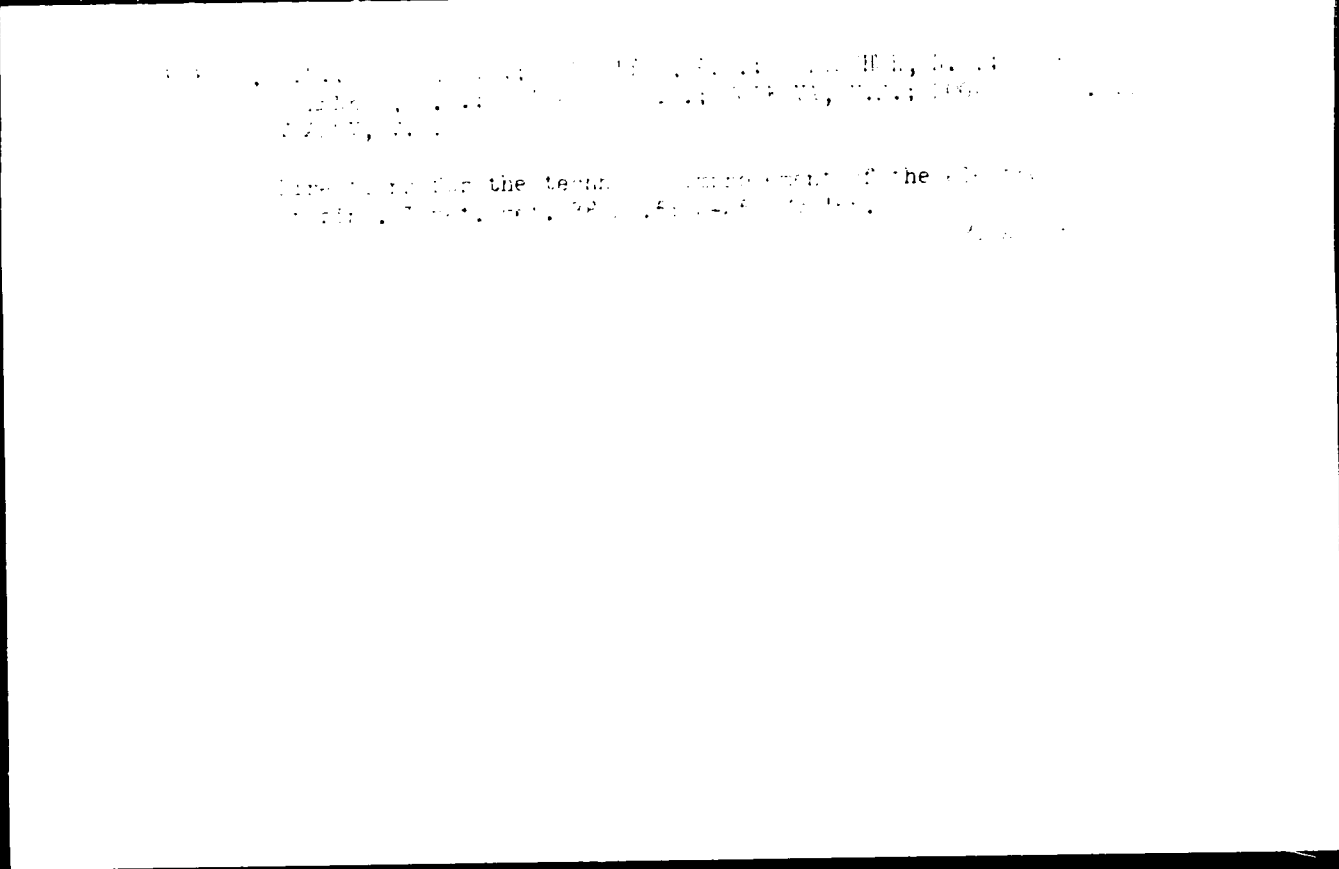


PILIPCHUK, N.

Eliminate shortcomings in the training of personnel. Den. 1 kred.  
15 no.4:38-39 Ap '57. (MIRA 10:6)  
(Finance--Study and teaching)

1. FILIPCHUK, N.
2. USSR (600)
4. Great Britain - Coal miners
7. English miners defend their right to live, V pom. profaktiva 11  
No. 3, 1953

9. Monthly List of Russian Accessions, Library of Congress, May 1953, Uncl.



L 31290-65 REO-2/ENT(1)/EEC(t)/EED-2/PSS-2 Pm-4/Pn-4/Pac-4/Pl-4/Pj-4/Pk-4/Pl-4 WR  
ACCESSION NR: AP5005339 S/0109/65/010/002/0228/0234

AUTHOR: Gabidulin, E. M.; Pilipchuk, N. I.

TITLE: Automatic control of threshold

SOURCE: Radiotekhnika i elektronika, v. 10, no. 2, 1965, 228-234

TOPIC TAGS: signal detection, radar

ABSTRACT: Automatic control of the threshold, in the problem of signal detection by comparing the receiver output voltage with a threshold voltage, is theoretically considered for the case when the time position of the signal is known. The probability distribution for sustained values of the threshold is found (formulas 10a and 11a). It is proven that the average value of the threshold is asymptotically equal to its optimal value while the dispersion asymptotically approaches zero when the probabilities of false alarm and missing signal are equal. In the case of a normal distribution of noise and signal-noise mixture, the

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I. 31290-65

ACCESSION NR: AP5005339

sustained threshold equals that determined from the perfect-observer criterion. A block diagram of a device that might realize the threshold automatic control comprises a limiter, signal-noise selectors, a binary reversible counter, and a number-to-voltage converter. The principal merit of the above control method is seen in the fact that the distributions of signal and noise may be arbitrary and unknown; the only condition is that the distribution of the signal-noise mixture must be quasi-stationary. Orig. art. has: 1 figure and 32 formulas.

ASSOCIATION: none

SUBMITTED: 11Dec63

ENCL: 00

SUB CODE: EC, 1E

NO REF SOV: 001

OTHER: 003

Card 2/2

PILIPCHUK, N.S., present; POMIENEVA, N.I.

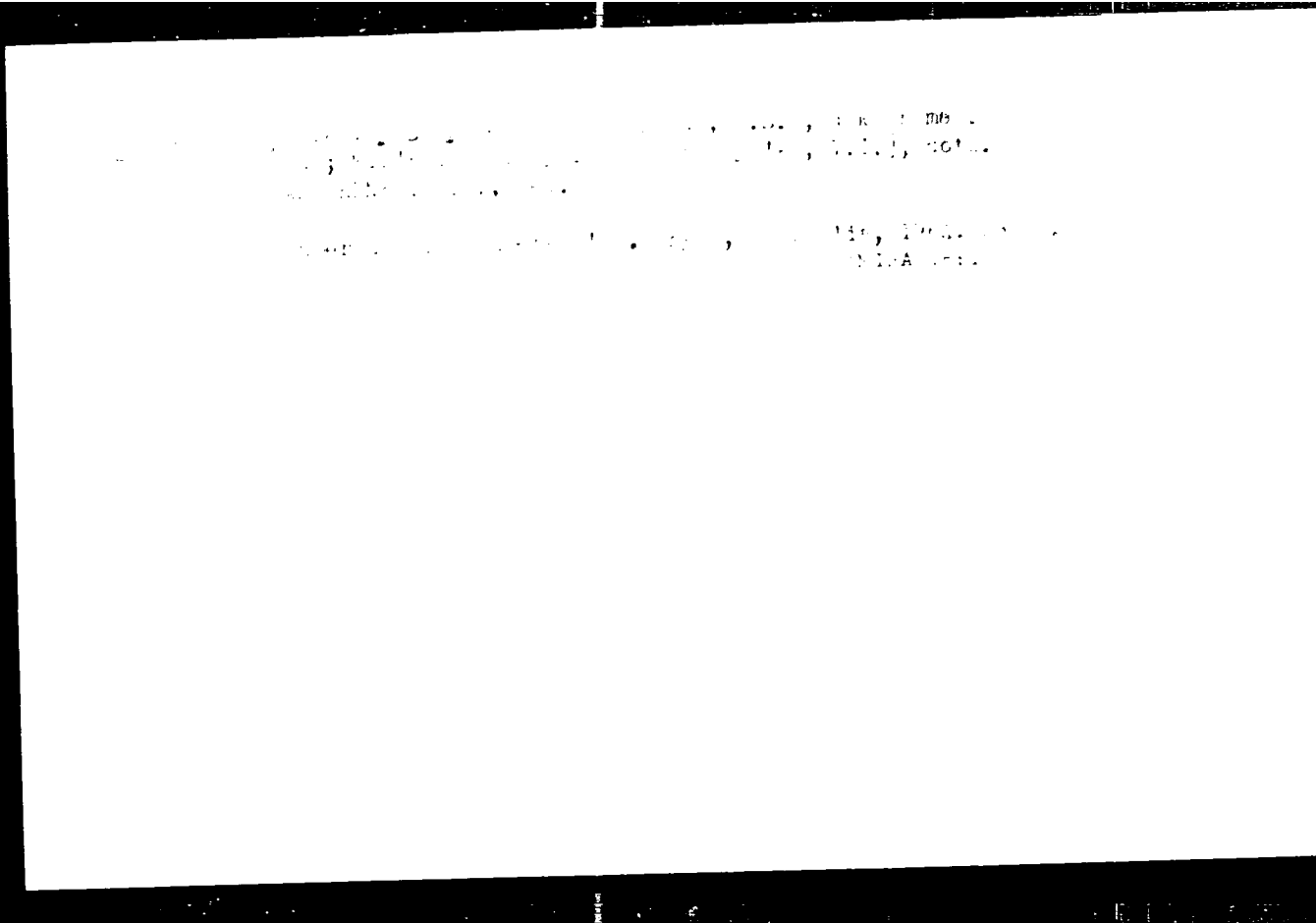
Change in external respiration following lung resection in tuberculosis. Vrach delo no. 113-78 F'64 (MIRA 11:4)

1. Kafedra tuberkulioza Kiyevskogo meditsinskogo instituta.

VEREMEYENKO, K.N., dotsent; PILIPCHUK, N.S., dotsent; USENKO, Yu.D.

Use of crystalline trypsin in the compound treatment of tuberculosis. Vrach.delo no.9:98-102 S '62. (MIRA 15:8)

1. Kiyevskiy meditsinskiy institut.  
(TUBERCULOSIS) (TRYPSIN)





GOROVENKO, G. G.; BRUSILOVSKIY, B. M.; LOZOVY, Ye. Kh.; MARSHAK, A. Yu.;  
MIKHEL'SON, B. V.; PILIPCHUK, V. S.; SLEPUKHA, I. M.; SOGLIN, Yu. I.;  
TARAPON, Yu. G.; YATSOZHINSKIY, Yu. D.

Results of the use of thoracoplasty and extrapleural pneumolysis  
in pulmonary tuberculosis. Probl. tub. no.2:24-29 '62.  
(MIRA 15:2)

1. Iz 1-go khirurgicheskogo otdeleniya (zav, - st. nauchnyy sotrud-  
nik G. G. Gorovenko) Ukrainskogo nauchno-issledovatel'skogo instituta  
tuberkuleza imeni akad. F. G. Yanovskogo (dir. - dotsent A. S.  
Mamolat)

(TUBERCULOSIS)  
(LUNGS--COLLAPSE)  
(CHEST--SURGERY)

PILIPCHUK, N.S., kand.med.nauk

Some characteristics of pulmonary tuberculosis in connection with  
the use of antibacterial drugs. Vrach. delo no.6:80-84 Je '61.  
(MIRA 15:1)

1. Kafedra ftiziatрії Kiyevskogo meditsinskogo instituta.  
(BACTERICIDES) (TUBERCULOSIS)

PILIPCHUK, N.S. [Pylypchuk, N.S.]

Experimental physiological investigation of some problems in  
lung resection. Fiziol. zhur. [Ukr.] 7 no.6:816-823 N-D '61.  
(MIRA 15:3)

1. Kafedra patologicheskoy fiziologii i kafedra tuberkuleza  
Kiyevskogo meditsinskogo instituta im. akad. A.A. Bogomol'tsa.  
(LUNGS---SURGERY)

PILIPCHUK, N.S., kand.med.nauk

Observation of a rare side-effect of phthivazid and streptomycin.  
Vrach. delo no. 3:128-129 Mr '61. (MIRA 14:4)

1. Kafedra tuberkuleza Kiyevskogo meditsinskogo instituta.  
(ISONICOTINIC ACID) (STREPTOMYCIN)

PILIPCHUK, N.S., kand.med.nauk (Kiyev)

Basis for short-term artificial pneumothorax. Vrach.delo no.3:  
231-235 Mr '60. (MIRA 13:6)

1. Kafedra tuberkuleza (zav. - prof. V.P. Rndin) Kiyevskogo  
meditsinskogo instituta.  
(PNEUMOTHORAX)

CHIRIKOV, N.S., doktor med. nauk, Kholmukhina "B".

Role of pneumoperitoneum in resection of the lungs in carcinoma  
Izv. Akad. med. nauk. SSSR, 1965, no. 1, 21-26.

1. Kafeina tuberkuleza (zav. N. S. Chirikovki) Kiyevskiy  
med. instytut im. I. P. Pavlova.

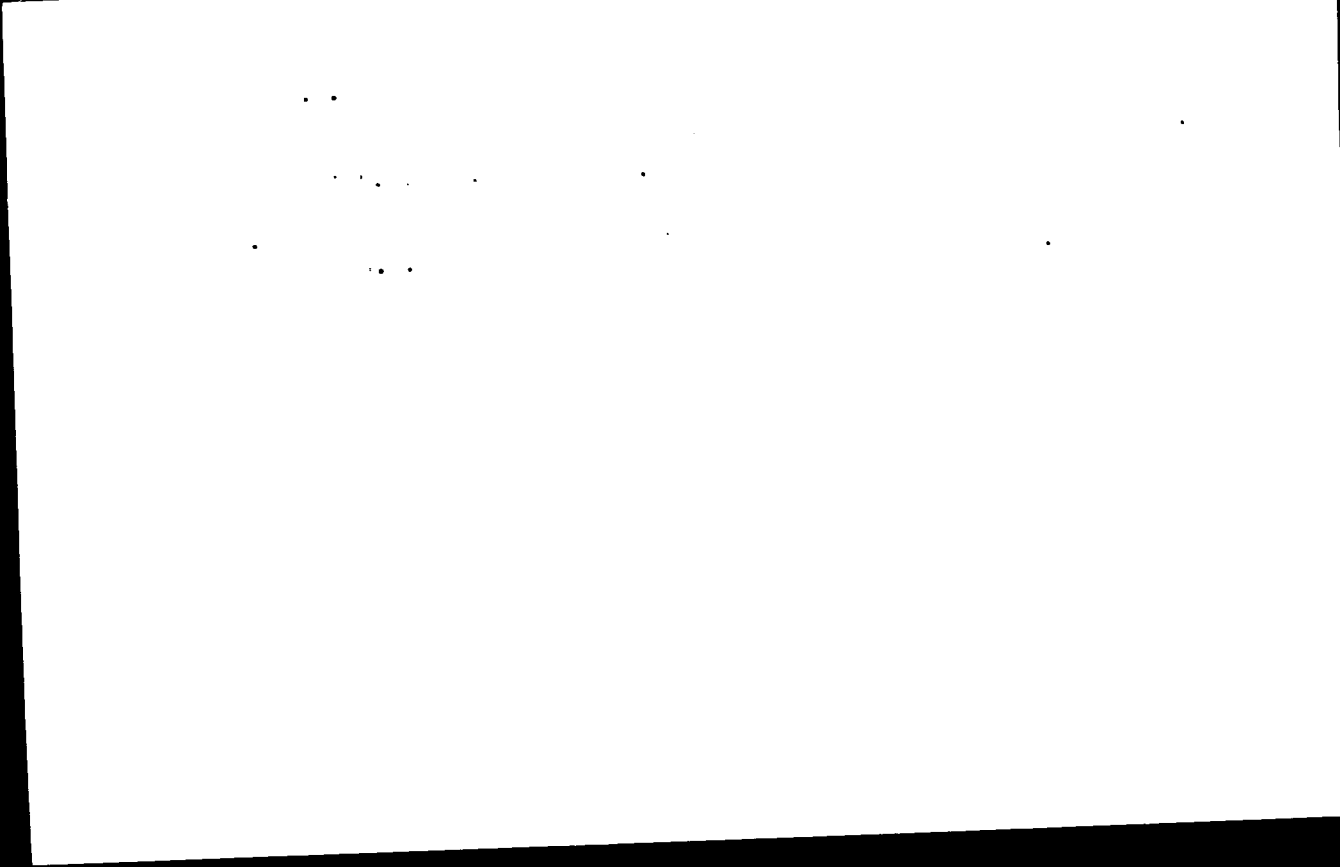
PILIPCHUK, Nikolay Stepanovich

[Collapse surgery in pulmonary tuberculosis] Kollapsokhirurgiia  
tuberkuleza legkikh. Kiev, Gosmedizdat USSR, 1960. 161 p.  
(MIRA 14:9)

(LUNGS—COLLAPSE)

"APPROVED FOR RELEASE: Tuesday, August 01, 2000

CIA-RDP86-00513R001240



APPROVED FOR RELEASE: Tuesday, August 01, 2000

CIA-RDP86-00513R0012408



USSR/Chemical Technology. Chemical Products and Their Application -- Wood chemistry products. Cellulose and its manufacture. Paper, I-23

Abst Journal: Referat Zhur - Khimiya, No 2, 1957, 6248

Author: Komshilov, N. F., Pervozvanskiy, I. V., Pilipchuk, O. I.,  
Spirkova, L. I.

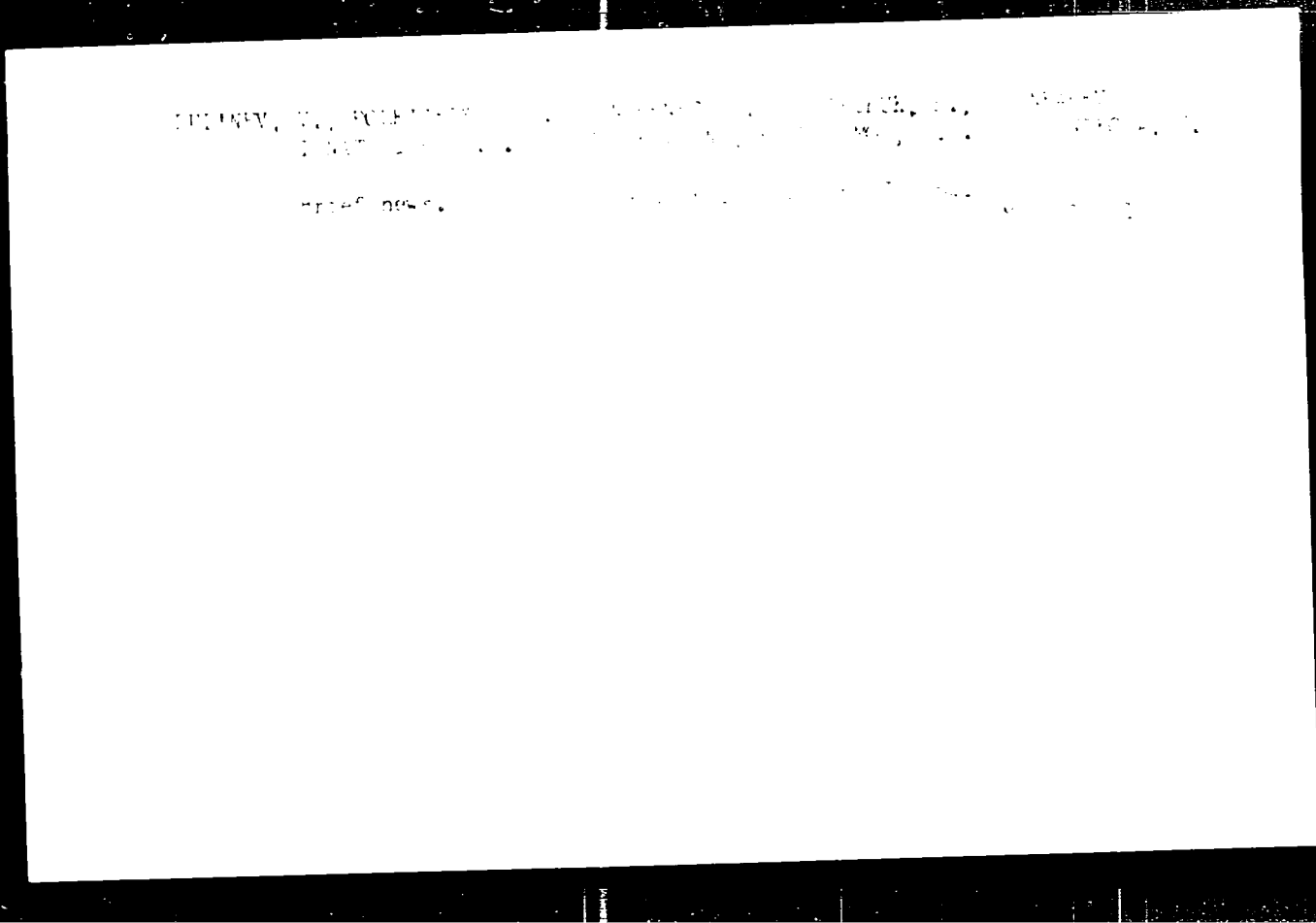
Institution: Karelo-Finnish Filiate of the Academy of Sciences USSR

Title: Raw Material Base of Rosin and Extractive Industry of the Karelo-Finnish SSR

Original  
Publication: Tr. Kar.-Fin. fil. AN SSSR, 1956, No 3, 67-80

Abstract: Data are provided concerning supplies of stump lightwood. Average pitch content of lightwood from Medvezh'yegorskiy forestry is 17% (on the basis of wood containing 20% moisture).

Card 1/1



PILIPCHUK, G.

USSR

"Agricultural Production: achievements in the  
People's Democracies" - *Foreign Affairs*, 1967

Current Director of the Soviet Press, Vol. 1  
No. 42 - 1967, Part 1. (In: *IAI Library*)

PILIPCHUK, V. D.

8654. Treatment of some inflammatory diseases with radioactive phosphorus. I. Ia. Deineka, K. D. Dubovii, and V. D. Pilipchuk. *Vrach. Delo*, 1958, No. 8, 703-708. *Russ. Zh. Biol.*, 1958, Abstract No. 14978. — The successful results are described of a method of therapy with  $^{32}\text{P}$  in treatment of 123 patients with inflammatory processes (furuncles, carbuncles, hydroadenitis, acute surface thrombophlebitis, and inflammatory bleeding ulcers). A single treatment consists of a daily exposure of the sites of inflammation to 50 r; usual dosage 300-400 r. (Russian) F. McKECHNIE

3

1. OLEYNIKOV, G. I.; PILIPCHUK, V. P.
  2. USSR (600)
  4. Plastering
  7. Plastering operations by the production - line, division of labor method.  
Biul. stroi. tekhn. 10 No. 7, 1952.
9. Monthly List of Russian Accessions, Library of Congress, April 1953, 'Uncl.

SECRET, Y... 1980, ...

... ..

...

ACCESSION NR: AR4032171

S/0058/64/000/002/D029/D029

SOURCE: Ref. zh. Fiz., Abs. 2D223

AUTHORS: Reznikov, V. M.; Pilipchuk, Yu. S.; Solov'yev, L. S.

TITLE: Infrared spectra of dioxane-lignin

CITED SOURCE: Sb. Materialy\* 1-y Nauchn. konferentsii Kompleksn. problemn. labor. Sibirsk. tekhnol. in-t. Krasnoyarsk, 1961, 36-42

TOPIC TAGS: dioxane, lignin, dioxane lignin, infrared spectrum, absorption spectrum, hydrogen bond, hydroxyl group

TRANSLATION: Infrared dioxane-lignin absorption spectra (3619--763  $\text{cm}^{-1}$  region) were investigated in KBr dissolved in dioxane, suspended in mineral oil, and in the form of a film. A strong hydrogen bond is observed in the dioxane-lignin. It is established that in the lignin molecule, part of the hydroxyl groups remains free. It

Card 1/2

ACCESSION NR: AR4032171

is noted that the dioxane and the lignin are bound quite strongly  
in the film.

DATE ACQ: 31Mar64

SUB CODE: PH, CH

ENCL: 00

Card 2/2



PILIPENKO, V. A.

"Sur les reactions du resorcinol avec les composés de niobium et de tantale." Serjakine, F. M. et Pilipenko, V. A. (p. 828)

SO: Journal of General Chemistry (Zhurnal Obshchei Khimii) 1938, Volume 8, No. 9

MIROSHNICHENKO, A.; KAKHRIMANOV, I. (g.Makhachkala); PILIPENKO, A.  
TYURIKOV, V. (g.Kazan'); SUVOROV, N. (pos.Pervomaysk)

Letters to the editor. Obshchestv. pit. no.7:40-41 JI '61.  
(MIRA 14:8)

1. Kladovshchik stolovoy No.23 Pervogo tresta stolovykh i  
restoranov g. Sverdlovsk (for Miroshnichenko). 2.  
Zamestitel' direktora restorana "Sport", g. Kiyev (for  
Pilipenko).

(Restaurants, lunchrooms, etc.)

AID P - 5259

Subject : USSR/Engineering

Card 1/1 Pub. 11 - 10/15

Authors Yeregin, L. P., G. G. Meyramov, and A. A. Filipenko  
(Novo-Kramatorskiy Machine Building Plant)

Title : Resistance slag welding of slider for a 6,300-ton  
forging and stamping power press.

Periodical : Avtom. svar , 4, 104-107 Ap 1956

Abstract : The welding procedure in making a heavy slider out of  
two pieces (7.5 and 30 ton) for a large power press is  
briefly described. Three tables, 2 drawings and 1 graph.

Institution : As above

Submitted : No date

*Handwritten:* P. 10/10/56  
YEREGIN, L.P.; MEYRAMOV, G.G.; PILIPENKO, A.A.

"Submerged" process used in the welding of the sliding  
block of a 6300 ton drop forging and stamping press. Avtom.  
svar. 9 no.4:104-107 J1-Ag '56. (MLRA 10:2)

1. Ordena Lenina Novo-Kramatorskiy metallurgicheskiy zavod  
imeni Stalina.

(Power presses--Welding)

VOLOSHKEVICH, G.Z.; YEREGIN, L.P.; PILIPENKO, A.A.

"Submerged" process used in the welding of hydraulic turbine shafts. Avtom. svar. 9 no.4:88-95 J1-Ag '56. (MLRA 10:2)

1. Ordena Trudovogo Krasnogo Znameni Institut elektrosvarki imeni Ye.O. Patona Akademii nauk USSR (for Voloshkevich) 2. Ordena Lenina Novo-Kramatorskiy metallurgicheskiy zavod imeni Stalina (for Yeregin and Pilipenko).  
(Shafts and shafting--Welding)

Subject : USSR/Engineering AID P - 5257  
Card 1/2 Pub. 11 - 8/15  
Authors : Yeregin, L. P. and A. A. Pilipenko (Novo-Kramatorsk  
Machine-Building Plant im. Stalin)  
Title : Resistance slag welding of water-wheel shafts  
Periodical : Avtom. svar., 4, 88-95, Ap 1956  
Abstract : The welding procedure in making three turbine shafts  
(each of 45 tons) for the Varvarinskaya Hydroelectric  
Power Plant (in Georgia) and the equipment used are  
concisely described. This work was done by the Electro-  
welding Institute im. Paton jointly with the Novo-  
Kramatorsk Heavy Machine-Building Plant im. Stalin. The  
same method was used in 1954-55 for welding shafts for  
the Kuybyshev and Stalingrad Hydroelectric Power Plants,  
utilizing the resistance slag welding instead of con-  
ventional casting and forging, which requires more than  
double the metal and time. Five drawings, 1 photo and  
1 table.

AID P - 5257

Avtom. svar., 4, 88-95, Ap 1956

Card 2/2 Pub. 11 - 8/15

Institutions: As above

Submitted : No date

NOVAK, G.Ye., PILIPENKO, A.G.

Studies on opisthorchosis and its control in Sumy Province in the  
Ukraine [with summary in English]. Med.paraz. i paraz.bol. 27  
no.3:264-270 My-Je '58 (MIRA 11:7)

1. Iz Sumskoy oblastnoy sanitarno-protivoepidemicheskoy stantsii  
(glavnyy vrach N.S. Yefimov).  
(TREMATODE INFECTIONS, prevention and control.  
Opisthorchis infect. (Rus))



PHILIPPO, A.M.

Metall. flow during deformation in double-slot dies. In: *zv.*  
ob. zav.; *bern. met.* 5 no. 8:69-76 '62. (1962)

1. *Vel'skiy politekhnicheskii institut.*  
Sverdlovsk. Deformations (Mechanics)

PILIPENKO, A.G.

Immediate postoperative results of gastric resection in peptic ulcer  
[with summary in English, p.158]. Vest.khir. 78 no.2:56-59 P '57.  
(MLRA 10:3)

1. Iz khirurgicheskoy kliniki usovershenstvovaniya vrachey (nachal'nik  
professor P.A.Kupriyanov, nauchnyy rukovoditel' raboty - dotsent  
I.A.Trukhalev) Voenno-meditsinskoy ordena Lenina akademii im.  
S.M.Kirova. Adres avtora: Leningrad, pr. Karla Marksa, d.7/8,  
klinika usovershenstvovaniya vrachey Voenno-meditsinskoy ordena  
Lenina akademii im. S.M.Kirova.  
(GASTRECTOMY, in various dis.  
peptic ulcer, postop. results (Rus))

EXCERPTA MEDICA Sec 17 Vol 5/6 Public Health June 59

1679. STUDY PREVENTION AND TREATMENT OF OPISTHORCHOSIS IN  
SUMY REGION (Russian text) - Novak G. E. and Pilipenko A. G. -  
MED. PARAZIT. I PARAZIT. BOL. 1958 27/3 (264-270) Tables I Illus. 2  
Cyprinids in the Dnieper and its tributaries, the Desna, the Seim, the Syla and

16.179

the Vorskla rivers of the Sumy region, are infected with metacercariae of *Opisthorchis felineus*, the molluscs *Bithylinia leachi* are infested with cercariae. The population living in the region of these rivers eat locally caught fish which is raw and slightly salted, usually 2 to 3 days after catching. This results in infestation with *Opisthorchis*. Hexachlorethane used for treatment of these patients is not sufficiently effective. After 3, 4 and even 5 courses of treatment, a stable clinical improvement was achieved in 50% while parasitologic effect was obtained in only 20% of the patients treated. (L. 6. 17)

FILIPPO RO, A. I., Col

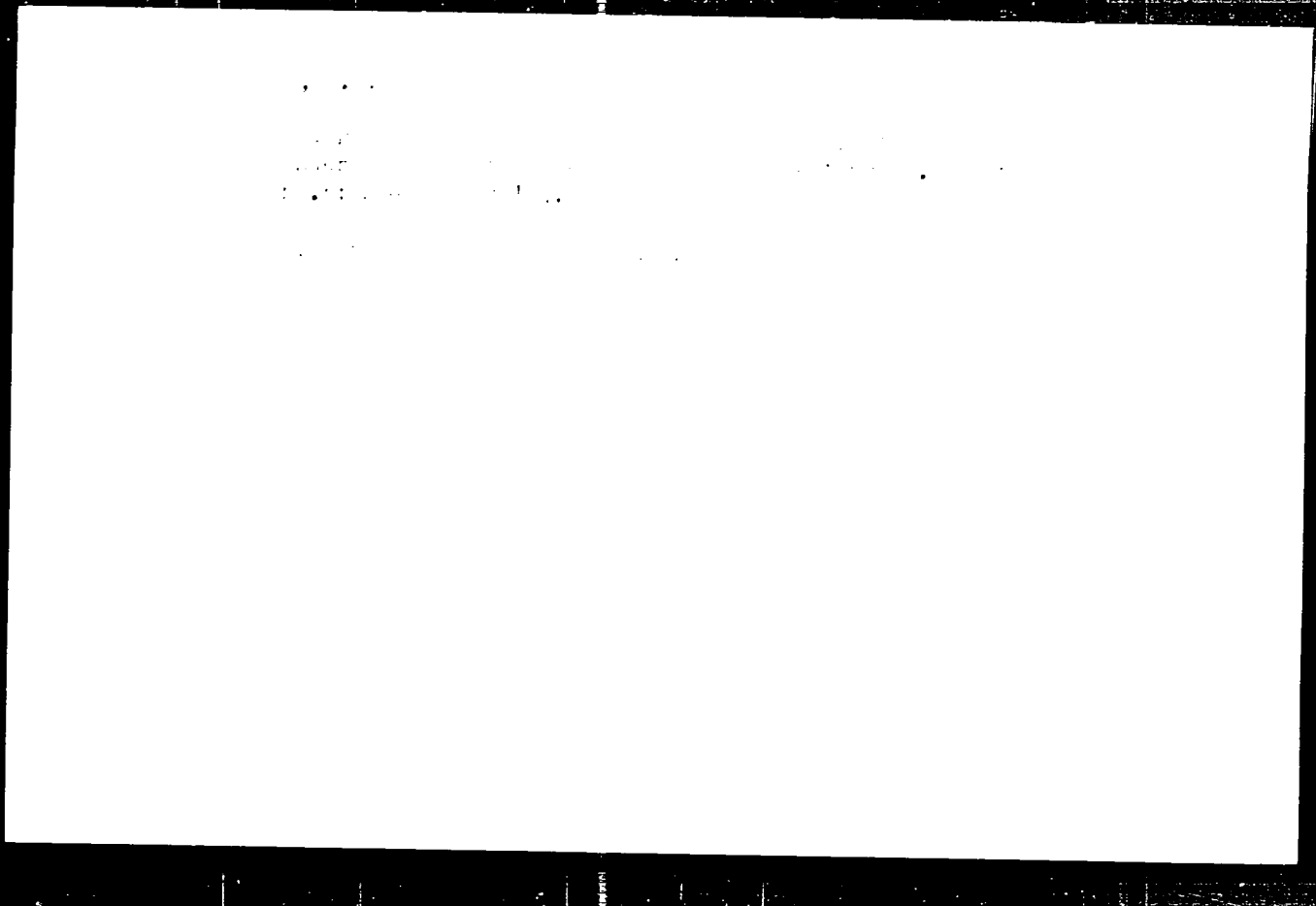
scheduled to defend publicly his dissertation, "The political and military situation of the National Agency: the role of the arms of Sec. min. (Kiev) in the Honorary of the US," for the purpose of the Institute of Social Sciences, of the Military-Political Academy, and the Academy of Sciences (1954, 1955)

SO: Krasnaya zvezda, Sov. 444, 11 Apr 56

TOMAS, M.K. (name, ...); YEDIN, T.I. (name, ...); ...

Some remarks to the evaluation of enzyme activity and level of bilirubin in the diagnosis of diseases of the liver in ... patients. Ther. nevr. i psikh. ...

1. Kafedra psikiatrii i zavedeniye V.A. Gromitskiy, ...  
Tatarskogo meditsinskogo instituta i Tatarskaya respublika ...  
khatricheskaya bolnitsa (glavnyy vrach) ...



BONDARENKO, G.A., zootekhnik; FILIPENKO, A.N., zaslužebnyy agronom  
Ukrainskoy SSR.

Put the planning of feed supply on a scientific basis. Zhivotnovodstvo  
24 no.5:79-81 My '62. (MIRA 16:10)



Литература, А. В. 1973 г. 1. 1.

1. Zaporozhskiy farmatsevticheskiy institut.

SECRET, A. S.

"The artist... the library... the...  
ated." Dan... (New York...  
... (NY, ...)

X: ...  
Presented in...

PILIPENKO, A.N.:

[Resistance of local paratyphoid A strains in chlorinated water]  
Ustoichivost' mestnykh paratifoznykh A-shtamov v khlorirovannoi  
vode. Kiev, Kievskii meditsinskii insitut im. A.A.Bogomol'tsa.  
1955, 13 p. (MLRA 1015)

(SALMONELLA PARATYPHI)

PILIPENING, A.I.

Equilibrium characteristics of helix type reaction  
Elektrifitsevo no. 5.59-63 My 1.5.

1964 (1961)

1. Institut avtomatizirovaniya i telemekhaniki.

PILIPENKO, A. P.

PILIPENKO, A. P.: "The theory and calculation of balanced bridge systems for automatic instruments." Acad Sci USSR. Inst of Automatics and Telemechanics. Moscow, 1956. (DISSERTATION FOR THE DEGREE OF CANDIDATE IN TECHNICAL SCIENCE).

So.: Knizhnaya Letopis', No. 25, 1956.

BEREZOVSKAYA, Ya.K.; PILIPENKO, A.P.; YAROSHINSKIY, Yu.N.

Pathogenesis of symmetrical bilateral necrosis of the cortical substance  
the kidneys. Urologia 24 no.6:20-26 '59. (MIRA 13:12)  
(KIDNEYS—DISEASES)

112-57-7-14734D

Translation from: Referativnyy zhurnal, Elektrotehnika, 1957. Nr 7, p 138 (USSR)

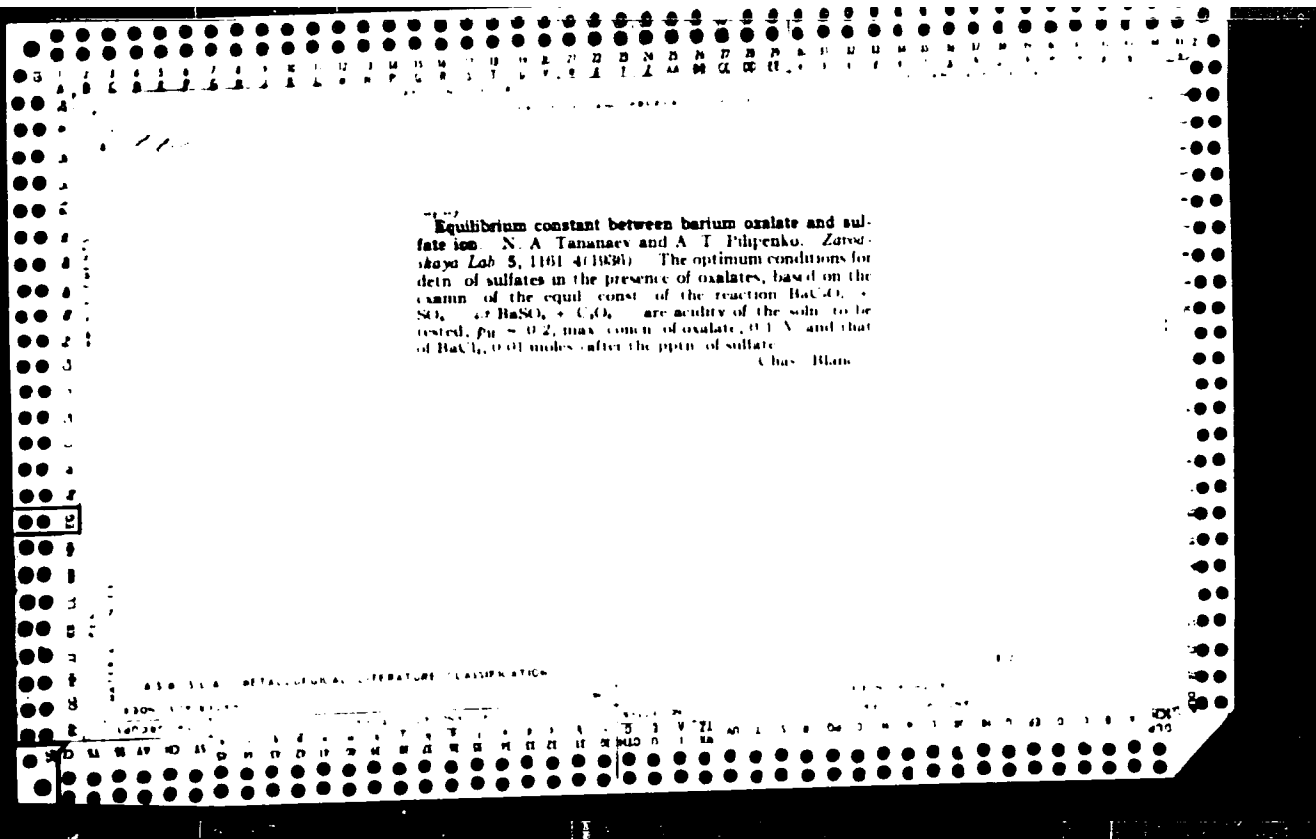
AUTHOR: Pilipenko, A. P.

TITLE: Theory and Calculation of Balanced Bridge Circuits for Automatic Devices  
(Teoriya i raschet uravnovesennykh mostovykh skhem dlya avtomaticheskikh priborov)

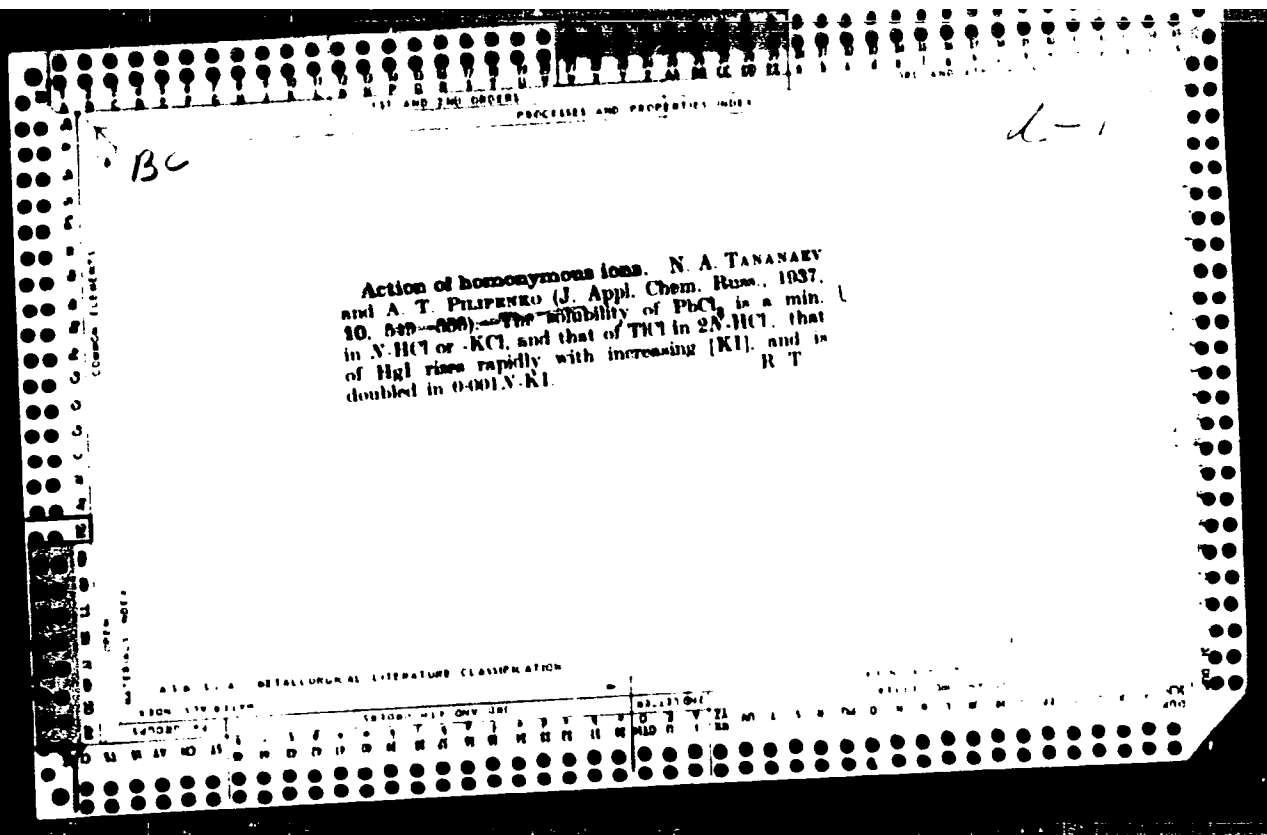
ABSTRACT: Bibliographic entry on the author's dissertation for the degree of  
Candidate of Technical Sciences, presented to In-t avtomatiki i telemekhan.  
AN SSSR (Institute of Automation and Telemechanics, AS USSR), Moscow, 1956

ASSOCIATION: In-t avtomatiki i telemekhan, AN SSSR (Institute of Automation and  
Telemechanics, AS USSR)

Card 1/1







A.E.S.

*Handwritten signature or initials*

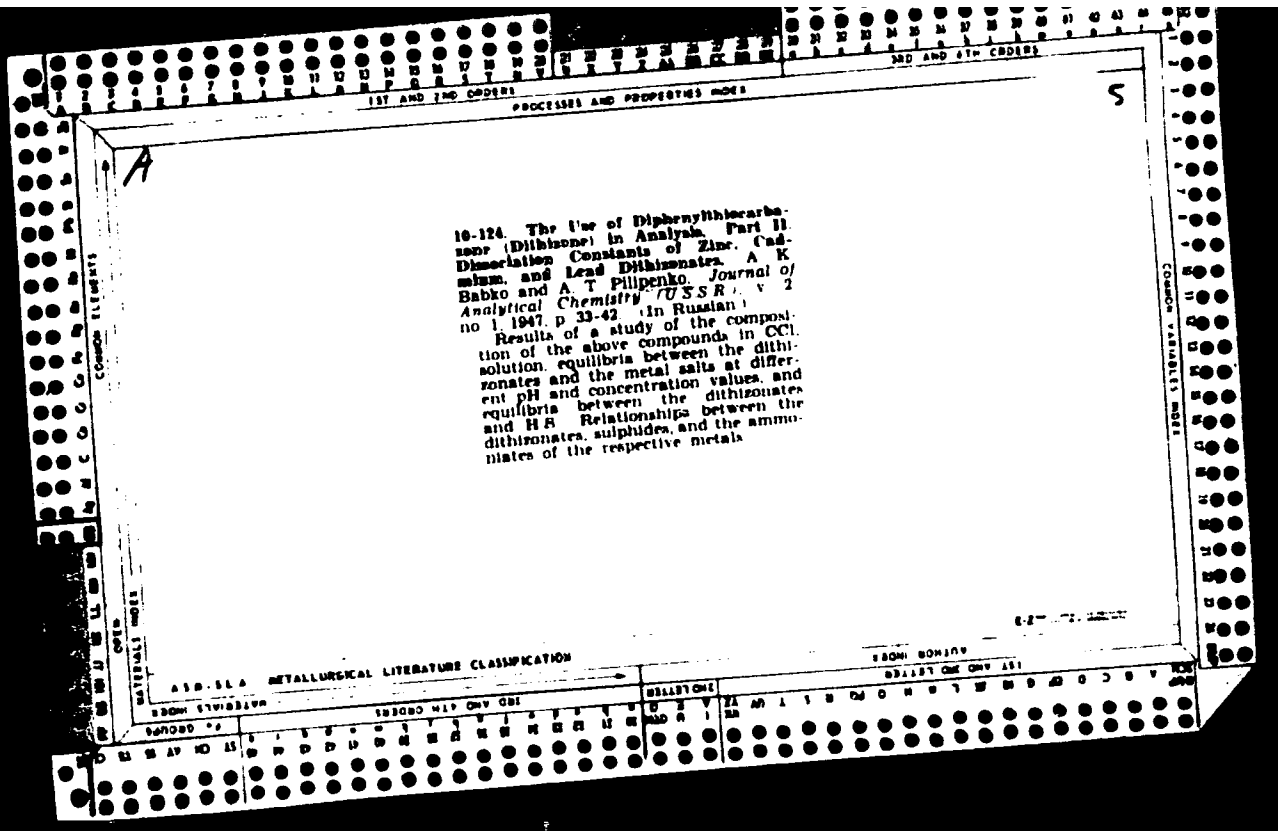
Testing for barium, strontium, calcium, and lead.  
A. T. FILIPANCO, *Zhurnal' Khim. i Fiz.* 10 (1934) 35 (1940).  
*Russk. Khim. Zhur.* 4 (3) 52 (1941). Boil the unknown  
neutral solution with Zn dust. Filter off the sediment and  
dissolve in HNO<sub>3</sub>. Pb is determined as sulfate. In the  
filtrate, Ba is determined as chromate. After the BaCrO<sub>4</sub>  
is filtered off, Sr is determined as sulfate. For determining  
Ca, the Ba and Sr are removed as sulfates, and the Ca in  
the filtrate is determined as oxalate. The sensitivity of  
these tests is Pb 0.2, Ba 0.12, Ca 0.10, and Sr 0.32 gm per  
liter. M.H.

CA

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Use of diphenylthiocarbazone dithione in analysis  
 I. Acid properties of dithione A. K. Babko and A. T. Philipenko. *Zhur. Anal. Khim.* 1, 275 (1946). A review of a study of the ionization constant of dithione considered as a monobasic acid. The value  $2 \times 10^{-9}$  was obtained. II. Instability constants of zinc, cadmium and lead dithionates A. K. Babko and A. T. Philipenko. *Zhur. Anal. Khim.* 2, 31 (1947). The instability constant is defined by  $K_{inst} = [M^{2+}][O_2^{2-}] / [MO_2]$  where M is a bivalent metal. The complex of Zn, Cd, and Pb dithionates was studied by a method outlined by P. J. (C. I. 22, 2120). The complex of these dithionates corresponded to  $MO_2$ . The corresponding values for K were for  $ZnD_2$   $0.8 \times 10^{-9}$ , for  $CdD_2$   $2.0 \times 10^{-9}$  and for  $PbD_2$   $2.2 \times 10^{-9}$ . A comparison is drawn between these dithiones and the corresponding ammonium and sulfides. The only product of the sulfides is of the same order of magnitude as of the corresponding dithionates but in reversed order. The reaction  $MO_2 + H_2S \rightleftharpoons MS + 2HD_2$  was considered. For a limiting case when the concn of free dithione and dithionate in the CCl<sub>4</sub> layer will be approx equal and the concn of H<sub>2</sub>S in the aq. layer will be of the order of magnitude of  $10^{-4}$  mol per l, then  $K_{inst} S_{aq} = 400$ . Thus, for the limiting case  $K_{inst} = 400 / S_{aq}$ , where S is the only product. The dithionates that react with H<sub>2</sub>S must satisfy  $K_{inst} > 400 / S_{aq}$ . For Zn  $K_{inst} = 1000 / S_{aq}$  and therefore Zn is a border case and  $ZnD_2$  will be stable. For Cd  $K_{inst} = 10^9 / S_{aq}$  and its dithionate will react with H<sub>2</sub>S to form sulfide. This was confirmed by expt. M. Hoesch

New State Univ.



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CA

Analytical properties of xanthates. 1. Solubility prod-  
 uct of silver ethylxanthate and solubility series of some  
 ethylxanthates. A. T. Pilyavko (Kiev State Univ.).  
 Zhov. Anal. Khim. 6, 237-31 (1949).—By potentiometric  
 titration of AgNO<sub>3</sub> with K<sub>2</sub>S<sub>2</sub>O<sub>8</sub>, the soly. product of  
 Ag<sub>2</sub>S<sub>2</sub>O<sub>8</sub> was detd. to be  $3.81 \times 10^{-11}$ . In a series of  
 expts. on displacement of metals from their xanthates by  
 other metals, the soly. of xanthates was qualitatively found  
 to be in increasing order: Hg<sup>++</sup>, Hg<sup>+</sup>, Au<sup>+++</sup>, Ag<sup>+</sup>,  
 Cu<sup>+</sup>, Bi<sup>+++</sup>, Pb<sup>++</sup>, Cd<sup>++</sup>, Ni<sup>++</sup>, Fe<sup>++</sup>, Zn<sup>++</sup>. M. Hoesch

*C. - 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81, 82, 83, 84, 85, 86, 87, 88, 89, 90, 91, 92, 93, 94, 95, 96, 97, 98, 99, 100*

*139 26*

2306. Use of dithionite-sulfonate (dithionite) in analysis III.  
 Instability constants of thallium and indium dithionates. Galina  
 G. Y. Pilyavko. *J. anal. Chem. USSR*, 1960, 8, 14—  
 20.—The maxima of the extraction curves of the dithionite (HDs)  
 complexes in  $CCl_4$  of  $Tl^+$  and  $In^{3+}$  correspond with the formulae  
 $TlD_2$  and  $InD_4$ .  $Tl^+$  is reduced by HDs. From a study of the  
 equilibrium constants at different pH values, the instability constants  
 of  $TlD_2$  and  $InD_4$  are found to be  $4.26 \times 10^{-6}$  and  $1.10 \times 10^{-10}$ , and  
 from these the pH (of the aq. phase) necessary for extraction of the  
 complexes is calc. With two-fold excess of HDs and a 10:1 ratio  
 (by vol.) of water and  $CCl_4$  phases,  $Tl^+$  requires pH 9.7—10 and  
 $In^{3+}$  pH 4—5. With one extraction, 99% is transferred to the  
 $CCl_4$  phase.  $Tl^+$  and  $In^{3+}$  may be separated by controlling the  
 pH of the aq. phase.  $Zn^{2+}$  and  $In^{3+}$  may be separated by extracting  
 first at pH 8—9 for  $Zn^{2+}$ , and then at pH 4—5 for  $In^{3+}$ . Attempts  
 to find a Ge dithionate were unsuccessful. Analogies with the  
 sulphide series are indicated. G. S. SMITH.

PIKIPENKO, A. T.

Babko, A. K., and Piliipenko, A. T.: Kokuinatsionebnii  
asanz ~~kolimetric~~ ~~analiz~~ ~~metod~~ ~~prilozhenii~~ ~~na~~ ~~praktiku~~.  
1951. 408 pp., 20 R. Reviewed in *Zh. fiz. i mat. nauk*, 7,  
07-8 (1952).

Handwritten notes: "Soviet" and "000000"

BANKO, A. K., PILIPENKO, A. P.

Calorimeters and Calorimetry

"Calorimetric analysis." reviewed by V. I. Kuznetsov. Ukr. Khim. Prilozh.,  
No. 1, 1952.

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



PILIPENKO, A.T.; LISETSKAYA, G.S.

Composition and instability constant of thiourea complex with bismuth.  
Ukr.khim.shur.17 no.1:76-85 '51. (MIRA 9:9)

1.Kiyevskiy gosudarstvennyy universitet.  
(Urea) (Bismuth organic compounds)

PILIPENKO, A.T.

85

1835. Use of diphenylthiocarbazonate in analysis.  
 IV. Instability constants of the dithizonates of  
 nickel, cobalt, manganese, iron, bismuth, copper, cerium,  
 lead, zinc and mercuric mercury. Dithizonates of  
 manganese and iron. A. T. Pilipenko (*J. Anal.  
 Chem., U.S.S.R., 1948, 1, 275*)

Instability constants  $K'$  where, e.g., for  $MDz_2$

$$K' = \frac{[M']_{2,0} \times [HDz]_{0,1} \times [K'HDz]}{[MDz]_{0,2} \times [H]_{1,0}}$$

and  $K'HDz = 1 \times 10^{-4}$  (Babko and Pilipenko, *J. Anal. Chem., U.S.S.R., 1948, 1, 275*) have been determined for certain dithizonates with the following results:  $NiDz_2$ ,  $1.7 \times 10^{-11}$ ;  $HDz_2$ ,  $1.1 \times 10^{-11}$ ;  $HgDz_2$ ,  $0.7 \times 10^{-11}$ ;  $SnDz_2$ ,  $4.5 \times 10^{-11}$ ;  $CoDz_2$ ,  $5 \times 10^{-11}$ ;  $CuDz_2$ ,  $1.1 \times 10^{-11}$  and  $AgDz_2$ ,  $2.9 \times 10^{-11}$ . Fe<sup>2+</sup> and Mn form dithizonates only under conditions at which oxidation rapidly occurs (pH > 7). The composition corresponds to 1 of metal to 2 of dithizone. G. S. SMITH

PILIPENKO, A. T.

*Chem*

Chemical Abstr.  
Vol. 73 No. 5  
p. 10, 1974  
Analytical Chemistry

Use of diphenylthiocarbazone (dithizone) in analysis IV. Dissociation constants of nickel, cobalt, tin(II), molybdenum, copper(II), silver, and mercury(II) dithizonates and dithizonates of manganese and iron. A. T. Pilipenko, U.S.S.R. Acad. Sci., Kiev State Univ., Kiev. *Zhur. Anal. Khim.* 8, 985 (1973); *cf. C.A.* 44, 3336a. - *Abstr.* 10, 10, 10. Solns. of metal salts and 10<sup>-4</sup>M soln. of dithizone (HDz) in CCl<sub>4</sub> were combined in various proportions so that the final vol. was always the same. The CCl<sub>4</sub> layer was decanted and added to 10 ml., and the optical d. detd. To solns. of Cu, Hg, and Ag a little 0.1N H<sub>2</sub>SO<sub>4</sub> was added before the compn. of these dithizonates is different in alk. and acid solns. The optical d. was detd. with appropriate band-pass filters. The max. on the light absorption curves corresponded to the compns. NiDz<sub>2</sub>, CoDz<sub>2</sub>, SnDz<sub>2</sub>, BiDz<sub>2</sub>, CuDz<sub>2</sub>, AgDz<sub>2</sub>, and HgDz<sub>2</sub>. Fe and Mn reacted with HDz only at pH > 7. Under such conditions both metals oxidized. To det. the compn. of Fe<sup>3+</sup> and Mn dithizonates, 10 ml. of HDz soln. was placed in a separatory funnel, and a buffer soln. of pH 8.6 and excess FeSO<sub>4</sub> or MnSO<sub>4</sub> soln. was added. The mixt. was shaken vigorously and allowed to stand for some time and the nonaq. layer was filtered through a dry filter. Although Fe<sup>3+</sup> and Mn<sup>3+</sup> were oxidized, enough unoxidized ion reacted with HDz. The filtrate was evaporated, the residue was treated with HNO<sub>3</sub>, and the Fe and Mn were detd. colorimetrically. The compns. formed were FeDz<sub>2</sub> and MnDz<sub>2</sub>. The dissoen. const. (K) for the various dithizonates were studied at different acidities and salt contents, and those of Hg and Ag also in the presence of halogens. The results were:  $K_{NiDz_2} = 0.7 \times 10^{-10}$ ,  $K_{CoDz_2} = 1.1 \times 10^{-10}$ ,  $K_{SnDz_2} = 2.3 \times 10^{-10}$ ,  $K_{BiDz_2} = 5 \times 10^{-10}$ ,  $K_{CuDz_2} = 1.7 \times 10^{-10}$ , and  $K_{AgDz_2} = 1.5 \times 10^{-10}$ . M. H. (1974)

PILIPENKO, A.T.

PILIPENKO, A.T.; LISETSKAYA, G.S.

Instability constants of copper, silver, and mercury thiourea complexes. Ukr.khim.zhur. 19 no.1:81-85 '53. (MLRA 7:4)

1. Kiyevskiy gosudarstvennyy universitet im. T.G.Shevchenko, kafedra analiticheskoy khimii. (Thiourea) (Compounds, Complex) (Metals)

*PILIPENKO, A. T.*

PILIPENKO, A.T.; LISETSKAYA, G.S.

Use of thiourea as complex forming agent in finding cadmium in the presence of copper. Ukr.khim.zhur. 19 no.1:87-89 '53. (MLRA 7:4)

1. Kiyevskiy gosudarstvennyy universitet im. T.G.Shevchenko. kafedra analiticheskoy khimii. (Thiourea) (Cadmium) (Compounds, Complex)

PILIPENKO, A. T.

✓ 1871. Analytical properties of xanthates. III. Colorimetric determination of cobalt as the ethylxanthate complex. A. T. Pilipenko and N. V. Utko (Kiev State Univ., ~~1958~~ 1958, 10 (6), 291-304. The solubilities of various metal ethylxanthates in organic solvents are studied. The composition of the cobalt compound is  $Co(C_2H_5OCS)_2$ ; it gives a deep-green solution in  $CCl_4$ , the colour intensity of which can be used for the determination of Co. Determination of Co in

iron-nickel ores—A 0.05 to 0.1-g sample of the ore containing from 0.05 to 1 mg of Co is heated with 5 to 10 ml of aqua regia, the solution is evaporated to fumes with 2 to 3 ml of dil.  $H_2SO_4$  (1 + 4), the residue is extracted with water and the filtrate from the  $SiO_2$  is collected in a separating funnel. Dilute  $HCl$  (1 + 1) (1 ml) is added and the ethylxanthate are pptd. by the addition of  $M K$  ethylxanthate. The ppt. is dissolved by shaking the solution with 10 ml of  $CCl_4$ , the  $CCl_4$  layer is transferred to another funnel and shaken energetically with 20 to 30 ml of aq.  $NH_3$  (1 + 1) containing ammonium tartrate (amount not stated), and the  $CCl_4$  layer containing the Co, free from Ni and Fe, is separated and its colour intensity is measured by means of a photocolourimeter. The cobalt content is found from a calibration curve. Determination of Co in steel—The steel (0.05 to 0.1 g) is dissolved in conc.  $HCl$  with the subsequent addition of  $HNO_3$ , the solution is evaporated to dryness, the residue is moistened with  $HCl$ , dissolved in water and treated as described above.

G. S. SMITH

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PILIPENKO, A. T.

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2902. Colorimetric method for the determination of magnesium in cast iron. A. T. Pilipenko and L. I. Dubovayko. *Nakh. Zap. Khim. Otd.*, 1955, 16 (3), 143-151; *Ref. Zhur., Khim.*, 1956, Abstr. No. 47,271. Magnesium is separated as the 8-hydroxyquinolate, the ppt. is dissolved in conc. HCl, and 8-hydroxyquinoline is determined colorimetrically by the colour of the complex with Fe<sup>2+</sup> in CCl<sub>4</sub>. Manganese and iron interfere. The former is removed by the persulphate method in alkaline medium, and the latter on a mercury cathode, or by the quicker and more convenient method of extraction of the chloride or ethylxanthate complex of Fe<sup>2+</sup>. In the latter case only the main mass of iron is removed. C. D. Korzin

no RG

*P. I. PILIPENKO, A. I.*

L1839. Determination of cobalt and nickel in manganese ores and slags, using ethyloxanthate. A. I. Pilipenko and V. A. Bogolyubskii (Kiev Univ., Ukr. SSR). *Ukrain. Khim. Zhur.*, 1956, 23 (1), 97-99. — A sample of ore containing 0.03 to 1 mg of Co is digested with conc. HCl, and the soln. is evaporated down to small vol. and filtered from the SiO<sub>2</sub>. The filtrate is diluted to 2-40 ml, an excess of 1% K<sub>2</sub> ethyloxanthate is added, and heavy-metal xanthates are extracted with CCl<sub>4</sub>. The extract is shaken with ammoniacal tartrate, the Co xanthate content of the CCl<sub>4</sub> layer is determined colorimetrically, and the Ni content of the aq. tartrate layer by the dimethylglyoxime method. The same procedure is applicable to slags, after treatment with aqua regia.

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R. TRUCOR



137-58-5-137  
p. 324 USSR

Translation from Referativnyi zhurnal, Metallurgiya, 1958, No. 5, p. 324

AUTHORS: Pilipenko, A. E., Altayev, I. M.

TITLE: Colorimetric Methods for Determination of Barium, Strontium, Calcium, and Magnesium (Kolorimetricheskiye metody opredeleniya bariya, strotsiya, kal'tsiya i magniya)

PERIODICAL: Izv. Nauchno-tekhn. o-va chernoy metallurgii, Ufr. resp. pravl. 1956, Vol 4, pp 67-80. Comments, p 81

ABSTRACT: A survey. Direct and indirect methods of colorimetric determination of Ba, Sr, Ca, and Mg are examined. The following methods are employed for determination of Ba: chromate, hydroxyquinoline, ethylmethylpicrate, and rhodizonate methods. Reactions of Ba, Sr, and Ca with aqueous solutions of tartaric acid and pyrogallol-carbonic acid in an alkaline medium are examined. Sr is determined by the indirect hydroxyquinoline method and by the direct rhodizonate method. The Ca is determined by the chloranilate, oxalate, and murexide methods, as well as by the method in which Ca is precipitated in the form of a triple salt  $CaK_2[Ni(NO_2)_6]$ , with subsequent determination of Ni by dimethylglyoxime. Mg is determined by hydroxyquinoline and

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Colorimetric Methods for (cont.)

and phosphate methods in conjunction with titanium yellow and hydroxylamine. Bibliography: 101 references.

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Card 2 2

PILIPENKO, A.T.

Analytical reagents containing thiol and thiono groups.  
A. T. Pilipenko, *Uspekhi Khim.* 25, 1402-28 (1956). A  
series of 348 references through 1955 is given which  
covers S-contg. analytical reagents, including thioacetates,  
thioformamide, thiourea, xanthates, dithiocarbamates [(CS-  
NH<sub>2</sub>)<sub>2</sub>], 4-methyl-1,2-dimercaptobenzene, K<sub>2</sub>CS<sub>2</sub>, 2-C<sub>6</sub>-  
H<sub>4</sub>NHCOCH<sub>2</sub>SH, 8-mercaptoquinoline, diphenylthiocarb-  
azide, diphenylthiocarbazono. Examin. of data on stability  
of links formed between metals and org. compds. with SH  
or C:S groups indicates the greatest stability of sulfides of  
metals in the middle of the periodic table with greatest  
stability found among metals of the radon period, and the  
least among the metals of the krypton period. A similar  
order is found among the complexes with SH or C:S re-  
agents.  
G. M. Kosolapoff

No. 11-1

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USSR/Inorganic Chemistry - Complex Compounds, C

Abst Journal: Referat Zhur - Khimiya, No 1, 1957, 67a

Author: Pilipenko, A. T., and Ivashchenko, L. N.

Institution: None

Title: Investigation of Phosphate Complexes in Solution. I. Phosphate Complexes of Iron

Original

Periodical: Zh. obshch. khimii, 1956, Vol 26, No 3, 656-660

Abstract: The light-absorption of  $\text{Fe}(\text{ClO}_4)_3$  solutions in  $\text{H}_3\text{PO}_4$  (I) in the range 320-420  $\text{m}\mu$  has been investigated with a view toward determining the composition of the phosphate complex of  $\text{Fe}^{3+}$ . An isomolar series of 0.1 M  $\text{Fe}(\text{ClO}_4)_3$  and I in 1 N  $\text{HClO}_4$  showed maximum light absorption at 320 and 360 m at a ratio of  $\text{Fe}^{3+}:\text{PO}_4^{3-} = 2:1$ . Ion transport experiments show a concentration of the  $\text{PO}_4^{3-}$  at the cathode. The conclusion is drawn that the complex has the formula  $(\text{Fe}_2\text{PO}_4)^{3+}$ . The dependence of the optical density at 320  $\text{m}\mu$  on the concentration of I at constant  $\text{Fe}^{3+}$  concentration was investigated. The degree of complexing of  $\text{Fe}^{3+}$

Card 1/2

U.S. C/C

*Pilipenko, A. T.*

Investigation of the phosphate complex in solution. I.  
Phosphate complex of iron. A. T. Pilipenko and L. N. Ivashchenko. *J. Gen. Chem. U.S.S.R.* 26, 781-8 (1958)  
(English translation).—See *C.A.* 50, 16314b. B. M. R.

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*Philipenko, A.T.*

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1-4E3d

No. 4. *Chemical-analytical properties of xanthates: IV. Solu-*  
*bility product of zinc, nickel, iron and cadmium xantho-*  
*genates. A. T. Filipenko, T. P. Varchenko, R. S. Kudelya,*  
*and A. P. Kostyshina (State Univ., Kiev). Zhur. Anal.*  
*Khim. 12, 467-51 (1957); cf. C.A. 50, 8356j. The following*  
*solv. products were detd.:*  $Zn(CH_3OCS_2)_2$   $(2.85 \pm$   
 $0.5) \times 10^{-6}$ ,  $Zn(C_2H_5OCS_2)_2$   $(1.21 \pm 0.2) \times 10^{-6}$ ,  $Zn-$   
 $(C_4H_9OCS_2)_2$   $3.70 \pm 0.91) \times 10^{-7}$ ,  $Ni(CH_3OCS_2)_2$   
 $(1.18 \pm 0.05) \times 10^{-11}$ ,  $Ni(C_2H_5OCS_2)_2$   $(1.37 \pm 0.05) \times$   
 $10^{-11}$ ,  $Ni(C_4H_9OCS_2)_2$   $(1.92 \pm 0.30) \times 10^{-11}$ ,  $Ni(C_2H_5-$   
 $OCS_2)_2$   $(4.51 \pm 0.82) \times 10^{-11}$ ,  $Cd(CH_3OCS_2)_2$   $(4.6$   
 $\pm 1.3) \times 10^{-11}$ ,  $Cd(C_2H_5OCS_2)_2$   $(5.6 \pm 0.6) \times 10^{-11}$ ,  
 $Cd(C_4H_9OCS_2)_2$   $(3.4 \pm 2.0) \times 10^{-11}$ ,  $Fe(C_2H_5OCS_2)_2$   
*M. Hosh*

*KIEV STATE UNIV.*

*NS*

PILIPENKO, A.T. [Pylypanko, A.T.]; MOSEVA, I.G. [Urolova, I.R.]

Absorption spectra and dissociation constants of diphenylthio-  
carbazone (dithiazone). *Vysk.zap.Khiv.un.* 1957, no.10:113-116  
'57. (MIRA 11:11)

(Dithiazone--Spectra)

(Dissociation)

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PERIOD: [Faint text]

SUBJECT: [Faint text]



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1. Zirconium-Colometric determination
2. Phenylfluoron
3. Phosphoric acid
4. Hydrofluoric acid

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GOLUB, Andrey Matveyevich [Holub, A.M.], kand.khimichnykh nauk; DMITRIK,  
Semen Yakovlevich [Dmytryk, S.IA]; PIIIPENKO, A.T., red.

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

PILIPENKO, A.T. [Pylypenko, A.T.]; OBOLONCHIK, V.A. [Obolonchuk, V.A.]

Reaction of methyl violet with rhenium. Dop. AN URSR no.6:648-649  
'58. (MIRA 11:9)

1. Institut metallokeramiki i spetsial'nykh splavov AN USSR. Predstavil  
akademik AN USSR A.K. Babko.  
(Rhenium) (Methyl violet)

PILIPENKO, A. T.

7  
 Use of selenourea in analytical chemistry. I. Relation of selenourea to heavy metal cations; composition, and stability of selenourea bismuth complexes. A. T. Pilipenko and I. P. Sereda (State Univ., Kiev). *Zhur. Anal. Khim.* 13, 3-10 (1968). -- Ppts. which dissolved in excess reagent were formed by Cu, Bi, Hg<sup>++</sup>, Ag, Sn, Sb, As, Pd, and Au with selenourea. Fe<sup>+++</sup> formed a water-sol. ppt. Hg<sup>+</sup> was reduced to Hg. Pb formed a ppt. insol. in excess reagent. MoO<sub>4</sub><sup>==</sup> was reduced to molybdenum blue. VO<sub>3</sub><sup>-</sup> was reduced to quadrivalent V. WO<sub>4</sub><sup>-</sup> was reduced to tungstic acid. Some of the above ppts. were colored. AgI, CuI, and HgI<sub>2</sub> dissolved in a soln. of selenourea. Bi formed 2 complexes with selenourea, one yellow ( $\lambda = 406 \text{ m}\mu$ ) at Bi:selenourea ratio 1:9, and the other red ( $\lambda = 510 \text{ m}\mu$ ) at a ratio of 1:12. The disocn. const. of the yellow complex was  $4 \times 10^{-7}$  and that of the red as  $10^{-12}$ .

NO. 14

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AUTHORS: Pilipenko, A. T., Sereda, I. P.

79-1-1/26

TITLE: The Application of Selenourea in Analytical Chemistry  
(Primeneniye selenoucheviy v analiticheskoy khimii).  
1. The Behavior of Senourea Toward the C Ions of Heavy Metals.  
The Composition and Stability of the Selenourea Complexes  
of Bismuth (1. Otnosheniye selenoucheviy k kationam  
tyazhelykh metallov, sostav i sostoyaniye selenouchevinykh  
kompleksov vismuta)

PERIODICAL: Zhurnal Analiticheskoy Khimii, 1955. Vol. 13, Nr 1, pp 3-10  
(USSR)

ABSTRACT: Selenourea has hitherto not been used in analytical chemistry.  
The research data of the authors show, however, that selenourea  
similar to thiourea forms stable complexes with heavy metals  
which are more intensively colored and more stable than the  
corresponding thiourea complexes. The synthesis of selenourea  
is carried out according to the method of Verneuil (ref. 1).  
The reagent must be stored in a solid state, because its neutral  
and alkaline solutions are oxidized by atmospheric oxygen  
under elimination of selenium. The end

Card 1/4

The Application of Selenourea in Analytical Chemistry. 75-1-1/26  
1. The Behavior of Selenourea Toward the Cations of Heavy Metals.  
The Composition and Stability of the Selenourea Complexes of Bismuth.

solutions are also only limitedly stable. The ions of the metals bismuth, antimony, tin, arsenic, gold and palladium yield color reactions with selenourea. Lead and at higher concentrations also trivalent iron form characteristic insoluble compounds. With copper, bivalent mercury and silver colorless complexes form which are well soluble in water and are distinguished by their high stability.  $WO_4^{2-}$  and  $MoO_4^{2-}$  are by selenourea reduced to wolfram blue and molybdenum blue respectively,  $VO_3^-$  to tetravalent vanadium. Bivalent iron, trivalent chromium, nickel, cobalt, manganese, cadmium and zinc do not give any visible reaction with selenourea. The iodides of silver, monovalent lead and bivalent mercury dissolve easily in a solution of selenourea and form the corresponding complex compounds. This proves the high stability of these complexes. Bismuth forms 2 complex compounds with selenourea highly different from each other: a yellow complex at a small excess of the reagent and a red one at a large excess of the reagent. With the aid of absorption measurements

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The Application of Selenourea in Analytical Chemistry.

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1. The Behavior of Selenourea Toward the Cations of Heavy Metals.

The Composition and Stability of the Selenourea Complexes of Bismuth

it was found that the yellow complex forms in the case of a concentration ratio of bismuth : selenourea = 1 : 2. It possesses a maximum of absorption at 405 mμ which can be well investigated. The red complex forms in the case of a concentration ratio : bismuth : selenourea = 1 : 12 and has an absorption maximum at 510 mμ. At smaller concentration ratios weakly colored complexes with a low coordination number form. The stability of the two selenourea complexes of bismuth was also investigated by optical methods. The absorption of solutions with the same content of bismuth, but different content of selenourea was determined photometrically. Thus the following values were obtained for the dissociation constants of the two complexes which represent a measure for their instability:

$$K_{\text{yellow complex}} = \frac{[\text{Bi Sel}_2^{3+}] \cdot [\text{Sel}]_1}{[\text{Bi Sel}_9^{2+}]} = 10^{-2} ;$$

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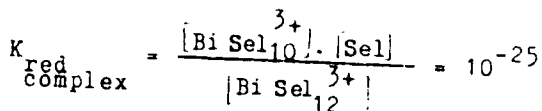


The Application of Selenourea in Analytical Chemistry.

75-1-1/26

1. The Behavior of Selenourea Toward the Cations of Heavy Metals.

The Composition and Stability of the Selenourea Complexes of Bismuth



The yellow selenourea complex of bismuth is thus more stable than the corresponding thiourea complex the dissociation constant of which is equal to  $6,4 \cdot 10^{-2}$ . Selenourea can therefore be used for the proof of the existence and the photometric determination of bismuth. The sensitivity of the determination in the formation of the yellow complex amounts to  $1 \mu\text{g Bi per ml}$  and in the formation of the red complex to  $2,5 \mu\text{g Bi per ml}$ . There are 7 figures, 1 table, and 7 references, 3 of which are Slavic.

ASSOCIATION: Kiyev State University (Kiyevskiy gosudarstvennyy universitet)

SUBMITTED: November 14, 1950

AVAILABLE: Library of Congress

Card 4/4

1. Selenourea - Applications
2. Selenourea - Synthesis
3. Selenourea - Chemical reactions

PILIPENKO, A.T.; OBOLONCHIK, V.A.

Reactions of rhenium with methyl violet. Part 1: Extraction of  
methyl violet complex of rhenium. Ukr. khim. zhur. 24 no.4:  
506-509 '58. (MIRA 11:10)

1. Institut metallokeramiki i spetsial'nykh splavov AN USSR.  
(Rhenium compounds) (Extraction (Chemistry))

PILIPENKO, A. T.

PILIPENKO, A. T.

**AUTHORS:** Zalesov, Yu. P., Marzhan, A. L., Petrov, V. I., Bushenko, M. A., Korobov, A. A., Pilipenko, A. T., Evgay, L. N.

**TITLE:** Communications in Brief (korotkiye soobshcheniya)

**PERIODICAL:** Zavodskaya Laboratoriya, 1956, Vol 24, Nr 9, pp 1070-1073 (USSR)

**ABSTRACT:** Yu. P. Zalesov and A. L. Marzhan (Srednezhiatskiy filial Vsesoyunogo nauchno-issledovatel'skogo instituta shirov, Central Asian Branch of the All-Union Scientific Center of Powder Metallurgy Institute) have evolved a method for the determination of gypsum in cottonseed oil. Gypsum is extracted with an aqueous alkaline solution in this process. Dry powder is formed, which solves well in water, and which is gravimetrically or volumetrically determined. V. I. Petrov, M. A. Bushenko and A. A. Korobov (Scientific Research Institute of the Central Scientific Research Institute) have evolved a determination method for acetone in water and waste gases. It is based on the reaction of acetone with hydrochloric acid in the presence of a green light filter and methyl orange as an indicator.

Card 1/3

Communications in Brief

907/52-24-9-14,53

**AUTHORS:** Pilipenko and L. N. Evgay (Institute metallotermiki i specialnykh spлавov AS USSR) (Institute of Powder Metallurgy and Special Alloys of the AS USSR) propose a method for the determination of boron and borides in some steels. With the oxides of titanium, zirconium, niobium, tantalum, niobium, hafnium, and polydum, an alkaline fusion should be carried out. Iron or nickel crucibles at 700°, the substance being 0.1-0.2 g. and small quantities of sodium peroxide being added. The analysis procedure is described.

**ASSOCIATION:** Srednezhiatskiy filial Vsesoyunogo nauchno-issledovatel'skogo instituta shirov (Central Asian Branch of the All-Union Scientific Research Institute) (Central Scientific Research Institute of Powder Metallurgy and Special Alloys, AS USSR)

Card 2/3

AUTHORS: Mamonov, F. G., Illipenko, A. T. SOV. CHEM. REV. 1964

TITLE: The Catalytic Interconversion of the Peranylfluorate of Permanganate (K<sub>2</sub>Permanganate) with Oxidizing Agents (Review)

PERIODICAL: JOURNAL OF CHEMISTRY, Vol. 34, No. 10, pp. 111-117 (1964)

ABSTRACT: The catalytic interconversion of permanganate is based upon the formation of yellow and blue heteropoly acids as well as the reaction of permanganate with oxidized acetylene, acetylene, ethylene, propylene, pyruvate, and phenylfluoride. Since the composition of the compound of permanganate with the last reagent as well as the conditions of the catalytic interconversion have been investigated insufficiently, the present review deals with this subject. Stipich and co-workers (Doklady Akad. Nauk) (Ref. 1) assume that easy isolation of this compound in organic solvents. In the present case it was observed that cyclohexane is a favorable solvent for the extraction of the permanganate peranylfluorate. The efficiency of the extraction is considerably worse. The experiments carried out are well at the assumption of Stipich and

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The following table shows the results of the analysis of the sample.

... of the structure of the permanganate ion. The results of the analysis are given in the following table. The results are represented in the following table for all the samples.

ASSOCIATION: In view of the history of the sample (see note on page 2) it is suggested that the sample is of the type described in the literature.

Carl C/C

PILIPENKO, A. T., OBOLONCHIK, V. A.

Colorimetric method of detecting tantalum in niobium by means  
of methyl violet. Vop. por. met i prochn. mat no.8:132-136  
'60. (MIRA 13:8)  
(Colorimetry) (Niobium--Analysis) (Tantalum--Analysis)

S/001/60/100  
B004/R001

AUTHORS: Pilipenko, A. T. and Shelenchuk, V. A.

TITLE: Study of Reaction of Rhenium by Means of Methyl V...  
Composition of Rhenium Compounds with...  
Methane Series, and Colorimetric Method of Rhenium Determination

PERIODICAL: Ukrainskiy khimicheskiy zhurnal, 1966, Vol. 12, No. 1, pp. 99-106

TEXT: The authors report on a study of the composition of rhenium compounds with crystal violet, methyl violet, malachite green, and brilliant green. Further, they describe a colorimetric method of Re determination in concentrates and wastes of nonferrous metallurgy. As the light absorption of Re compounds with the dyes mentioned is very similar to that of other dyes, the usual spectrophotometric method cannot be used. The dye complexes with Re must be previously extracted. By means of aqueous solutions (10<sup>-4</sup> g-mole/l) of dye and potassium perchlorate with addition of acetate ammonia buffer solution, the authors determined the pH at which

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Study of Reactions to Rhodium by Means of Methyl Violet 3  
Composition of Rhodium Complexes with Rhodium  
Dyes of the Triphenyl Methane Series and Colorimetric Method of Rhodium Determination

the maximum amount of Rhodium dye complex is formed by extraction by means of toluene and measurement of the optical density by photometer. Toluene was found to be the best solvent. A study was made of ethyl acetate, and chloroform extraction of the dye and the complex. Other solvents do not extract the complex. The authors determined the distribution coefficients of the complex between the aqueous and the organic phase and found that it was sufficient to repeat the extraction by means of toluene 2 times. A colorimetric method is described for the following colorimetric method is described. The washed precipitate is mixed with a 3-5 fold amount of CaCl<sub>2</sub> and after that 200 mg of CaCl<sub>2</sub> in a muffle furnace for 2-3 hours, then extracted with water, filtered, evaporated, filtered again and filled up in a separating funnel. After adding 1 ml of concentrated HCl, the solution is allowed to stand for 30 minutes. 3% methyl violet solution is added to the solution and the optical density of the solution extracted is measured with a photometer. The optical density of the extract is measured with a photometer with green light filtered through a 5 mm layer of water.

Card 1/2



Study of Reactions of Rhodium to Molybdenum  
Violet Composition: Rhodium Chloride  
Dyes of the Triphenyl Methane Series and their  
metric Method of Rhodium Determination

plotted by means of standard...  
molybdate. The elements Au, Os, Th, Bi, Sb, which...  
violet and are extracted by solvent...  
HCOO<sup>-</sup>, CNS<sup>-</sup>, Br<sup>-</sup>, and I<sup>-</sup>, however...  
permits a determination of 10 μg of Rh with a...  
N. S. Poluektov is mentioned. The...  
references

ASSOCIATION: Institut metallurgicheskoy fiziki i AN USSR  
(Institute of Physical Metallurgy and Special Alloys)  
AS UkrSSR)  
SUBMITTED: June 18, 1957

Card 3/3

PILIPENKO, A.T.; KAPUSTYAN, A.I.

Complex formation in the system tellurium (IV) - diantipyrylmethane -  
bromide. Ukr. khim. zhur. 21 no. 19-22 '64. (MIRA 17-6)

1. Kiyevskiy gosudarstvennyy universitet imeni Shevchenko.

ACCESSION NR: AP4011971

S/0073/64/030/001/0009/0012

AUTHORS: Pilipenko, A.T.; Kapustyan, A.I.

TITLE: Investigation of complex formation in the tellurium (IV)--diantipyrylmethane--bromide system

SOURCE: Ukrainskiy khimicheskij zhurnal, v. 30, no. 1, 9-12

TOPIC TAGS: tellurium diantipyrylmethane complex, extraction, formation, diantipyrylmethane complex, tellurium selenium separation, tetravalent tellurium complex

ABSTRACT: Physical chemical analysis and analysis of the reaction product formed in the tellurium (IV)-diantipyrylmethane-bromide system established that the ratio of the reacting components  $(\text{Te}^{4+}) : (\text{Diant}) : (\text{Br}^-)$  is 1:2:6. The solubility of the  $(\text{Diant})_2(\text{TeBe}_6)$  complex is 1.12 g./l. in dichlorethane. The optimum conditions for extracting the tellurium complex with dichlorethane include a sufficiently large excess of halide and 6 N acidity in the

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ACCESSION NR: AP4011971

aqueous phase. Formation of the ternary complex and its extraction with organic solvents affords a means of separating tellurium from selenium. Orig. art. has: 5 figures and 2 equations.

ASSOCIATION: Kievskiy gosudarstvennyy universitet im. T.G. Shevchenko (Kiev State University)

SUBMITTED: 23Feb64

DATE ACQ: 14Feb64

ENCL: 00

SUB CODE: CH

NO REF SOV: 003

OTHER: 000

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