

ILIVITSKIY, A.A.; UTKIN, L.A.; PESHKOV, V.Ya.

Underground mining of the Blagodat' mountain deposits. Biul.  
TSNIICHM no.23:36-38 '57. (MIRA 11:2)

1.Ural'skiy filial AN SSSR (for Ilivitskiy, Utkin). 2.Goroblago-  
datskoye rudoupravleniye (for Peshkov).  
(Blagodat Mountain--Iron mines and mining)

PESHKOV, Ye.

Slesarnaia i Meĥanicheskaia Obrabotka Izdelii (Machining and Mechanical  
Finishing of Metallic Products)

185 p. 1.50

SO: Four Continent Book List, April 1954.

9,8300

88510

17.2000 (3212)

S/177/60/000/002/001/001  
B023/B066

AUTHORS: Samoylov, G. V. Colonel, Engineer, Peshkov, Ye. M., Colonel of the Medical Service, Myazdrikov, V. A. MAJOR, Engineer

TITLE: Method of Remote Recording of Essential Physiological Functions in Men by Means of Radiotelemetry

PERIODICAL: Voenno-meditsinskiy zhurnal, 1960, No. 2, pp. 70-72

TEXT: The authors describe a method devised by them in 1949 of recording physiological functions in men during flight by means of a radio telemetric device. According to the authors, this method is still applied. It permits the recording of respiratory frequency, body temperature, oxygen pressure under the mask, pressure in the stress device of the pressurized suit, flight altitude, pressure in the cabin, overstrain etc. The respiratory movements of the chest are transmitted to a feeler which is fastened to the chest. The scheme of the feeler may be seen in Fig 1. By means of the feeler the respiratory movements are transformed into voltage fluctuations of direct current. The voltage fluctuations of the Card 1/4

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Method of Remote Recording of Essential Physio- S/177/60/000/002/001/001  
logical Functions in Men by Means of Radio- B023/B066  
telemetry

feeler are received by a commutator and pass over to a converter which transforms them into sound frequency. This sound frequency is transferred by means of the radio transmitter from the airplane to the earth, transformed and recorded on photographic paper. The radiotelemetric device can operate with potentiometric and with carbon feeler. Tensiometers may be applied for this purpose as well. Fig. 2 shows the scheme of a simple device for recording physiological functions of the pilot. The authors fitted the transmitter of the radiotelemetric device in the airplane and in adequate position feelers to record the parameters mentioned above. The respiration feeler is applied under the suit with only a low tension in order to prevent a hampering of the pilot's movements. Fig. 3 shows curves of the respiratory movements. Also changes of the type of chest movements in dependence on the external pressure are recorded there. Fig. 4 presents curves which illustrate the chest movements in great altitudes and on sudden change of the surrounding atmospheric pressure. The examples given do not completely cover the entire range of applicability of the method discussed. According to the authors it may be widely and successfully applied in the

Card 2/4

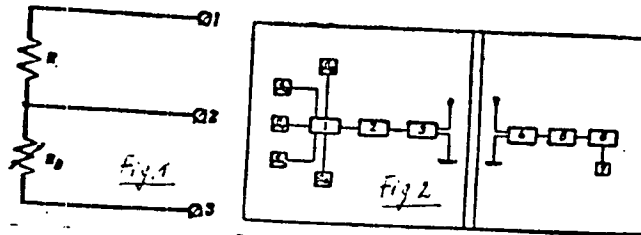
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Method of Remote Recording of Essential Physiological Functions in Men by Means of Radiotelemetry

S/177/60/000/002/001/001  
B023/B066

study of the working physiology of aircrews and in sport. There are 4 figures.

SUBMITTED: January 1957



Legend to Fig. 1: R - constant resistance,  $R_d$  - variable resistance of the feeler, 1-3 - terminals. Legend to Fig. 2: airplane apparatus:  $D_1$  - Card 3/4

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S/177/60/000/002/001/001  
B023/B066

respiratory feeler, D<sub>2</sub> - feeler of the altitude of flight, D<sub>3</sub> - feeler  
of overstrain, D<sub>4</sub> - feeler of oxygen pressure under the mask, D<sub>5</sub> - fee- A  
ler of pulse frequency, 1 - commutator, 2 - converter, 3 - radiotrans-  
mitter. Ground apparatus: 4 - radioreceiver, 5 - converter, 6 - recor-  
der, 7 - time recorder.

Card 4/4

BRUNN, Ilya D. [Russian]; doc. kand. tekhn. nauk, KAZHAROV,  
Alexander Matveyevich, inzh.; ELZHANOV, Ye. G., retsezent;  
in YUEN, G. M., retsezent. B. CHIROVA, Yu. F., red.

[Technology of metals and structural materials] Tekhnolo-  
giya metallov i konstruktsionnye materialy. Moskva, Vys-  
sшая shkola, 1965. 313 p. (SIRA 18 12)

PESHKOV, Yevgeniy Onisimovich; YAKOBSON, M.O., nauchn. red.;  
ABOLEMOV, V.P., red.; NESYTSLOVA, L.M., tekhn. red.

[Machining on turret lathes] Rabota na tokarno-revol'-  
vernykh stankakh. Moskva, Proftekhizdat, 1964. 283 p.  
(MIRA 17:4)



PESHKOVA, G.A.

Floristic finds in Dauria. Izv. Sib. otd. AN SSSR no. 8:122  
'62. (MIRA 17:8)

1. Vostochno-Sibirskiy biologicheskiy institut Sibirskogo  
otdeleniya AN SSSR, Irkutsk.

YEFIMOV, I.P.; LAGUNOVA, O.D.; MAGDESIYEVA, N.N.; TITOV, V.V.; YUR'YEV, Yu.K.;  
PESHKOVA, V.M.

Determination of the acid dissociation constants of  $\beta$ -diketones  
of the selenophene series. Vest. Mosk. un. Ser. 2: Khim. 18  
no.5:49-53 S-0 '63. (MIRA 16:11)

1. Kafedra analiticheskoy khimii Moskovskogo universiteta.

ACCESSION NR: AP4019505

S/0075/64/019/003/0297/0302

AUTHOR: Dolmanova, I. F.; Peshkova, V. M.

TITLE: Determination of microamounts of copper by means of the catalytic oxidation reaction of hydroquinone by hydrogen peroxide in the presence of pyridine

SOURCE: Zhurnal analiticheskoy khimii, v. 19, no. 3, 1964, 297-302

TOPIC TAGS: copper, quantitative analysis, microanalysis, catalytic hydroquinone oxidation, copper hydroquinone pyridine complex, optical density, photometric analysis

ABSTRACT: The catalytic oxidation of hydroquinone by hydrogen peroxide in the presence of pyridine and copper was studied. Using the differential variant of the kinetic method of analysis it was established that the optical density of the solution increases with increased reaction time and concentration of the oxidized form of the hydroquinone. A 1:1 ratio of pyridine and hydroquinone provides a

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ACCESSION NR: AP4019505

constant maximum on the differential curve; the catalytic reaction is at its maximum at pH 7.1-7.9. The first order function between copper concentration and the hydroquinone oxidation rate provides a means of determining the unknown copper concentration. The method of tangents is suitable for concentrations up to  $1 \times 10^{-3}$  microgram/ml; the fixed time method (comparing optical density after 30 minutes with a standard) is sensitive up to  $5 \times 10^{-4}$  microgram/ml.  $5 \times 10^{-7}\%$  Cu can be determined from a 2-g. sample. The mechanism of the catalytic oxidation reaction is discussed. Orig. art. has: 3 tables and 5 figures

ASSOCIATION: Moskovskiy gosudarstvennyy universitet im. M. V. Lomonosova (Moscow State University).

SUBMITTED: 06Jun63

DATE ACQ: 31Mar64

ENCL: 00

SUB CODE: CH

NO REF SOV: 009

OTHER: 003

Card 2/2

SOCHIKVKO, L.F.; VOLODINA, N.V.; POLETAYEVA, V.M.

Use of a flow oxymometer of the Po-OI type in artificial circulation. Vest.khir. 87 no.11:38-40 N '61. (MIRA 15:11)

1. Iz samostoyatel'nogo konstruktorskogo tekhnologicheskogo byuro biologicheskogo i fiziologicheskogo priborostroyeniya (Leningrad). Adres avtorov: Leningrad, Savirovskaya ul., 37, "Biofizpribor."  
(BLOOD—OXYGEN CONTENT) (BLOOD—CIRCULATION, ARTIFICIAL)

TEREKHOVA, L.G.; POLISHCHUK, V.I.

RG1-01 rheograph is a new apparatus for the study of the cardiovascular system. Med. prom. 14 no.8:43-46 Ag '60. (MIRA 13:8)

1. Samostoyatel'noye konstruktorskoye tekhnologicheskoye byuro biologicheskogo i fiziologicheskogo priborostroyeniya. (MEDICAL INSTRUMENTS AND APPARATUS)

PESHKOV, Yevgeniy Onisimovich; FADEYEV, Nikolay Il'ich; SMELYANSKIY, V.A., red.; KOVALENKO, V.L., tekhn. red.

[Student technical dictionary; aid for practical exercises of grade 5-7 students] Tekhnicheskii slovar' shkol'nika; posobie dlia prakticheskikh zaniatii uchashchikhsia V-VII klassov. Izd.2., ispr. i dop. Moskva, Gos. uchebno-pedagog. izd-vo M-va prosv. RSFSR, 1961. 176 p. (MIRA 15:2)

(Technology--Dictionaries)

PESHKOV, Yevgeniy Onisimovich; BRUSHTEYN, B.Ye., kand.tekhn.nauk,  
retsensent; RZHAVINSKIY, V.V., inzh., red.; EL'KIND, V.D.,  
tekhn.red.

[Operator of turret lathes] Tokar'-revol'vershchik. Moskva,  
Gos.nauchno-tekhn.izd-vo mashinostroit.lit-ry, 1960. 190 p.  
(Turning) (MIRA 13:12)



FEBRUARY, 1950.

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NO:

GALEY, M.T.; PESHKOV, Ye.O.

Effect of drill geometry and cutting conditions on the precision of drilling holes. Priborostroenie no.2:6-8 F '64.  
(MIRA 17:3)

FESHKOV, Yevgeniy Onisimovich; GOLOVIN, S.M., kand. tekhn. nauk,  
retsensent; LESNICHENKO, I.I., red. izd-va; GORDEYEVA, L.F.,  
tekhn. red.; SMIRNOVA, G.V., tekhn. red.

[Adjustment of turret lathes]Naladka tokarno-revol'vernykh  
stankov. Moskva, Mashgiz, 1962. 159 p. (MIRA 15:9)  
(Lathes--Maintenance and repair)

PESHKOV, Yevgeniy Onisimovich; FADEYEV, Nikolay Il'ich; POLYAKOV, A.A.,  
red.; GOLOVKO, B.H., tekhn.red.

[Technical dictionary for pupils; manual for practical training  
of pupils of 5-7 grades] Tekhnicheskii slovar' shkol'nika;  
posobie dlia prakticheskikh zaniatii uchashchikhsia V-VII klassov.  
Moskva, Gos.uchebno-pedagog.izd-vo M-va prosv.RSFSR, 1959. 157 p.  
(MIRA 13:2)

(Technical education) (Technology--Dictionaries)

~~PESHKOV, Yevgeniy Onieimovich~~, FADEYEV, Nikolay Il'ich.; MOROZOVA, G.P., red.;  
MAKOVA, N.N., tekhn. red.

[Album of mechanical drawings for school workshops; manual for  
grades five to seven] Al'bom chertezhei-izdelii dlia shkol'nykh  
masterskikh; posobie dlia uchashchikhsia V-VII klassov. Moskva, Gos.  
uchebno-pedagog. izd-vo M-va prosv. RSFSR, 1958. 197 l.(in portfolio).

(MIRA 11:10)

(Manual training)

PESHKOV, Ye.O., inzhener.

Files with attached cutting blades. Stan. 1 instr. 18 no.4:26-27  
Ap '47. (MIRA 7:11)  
(Files and rasps)

PESHKOV, Ye. O.; MITIN, V.I., inzhener, redaktor; POPOVA, S.M., tekhnicheskii redaktor.

[Operator of the turret lathe] Tokar' revol'vershchik. Moskva, Gos. nauchno-tekhn. izd-vo mashinostroit. lit-ry, 1955. 147 p.  
(Turning) (MLRA 8:8)

PESHKOV, Ye.O.

PHASE I

TREASURE ISLAND BIBLIOGRAPHICAL REPORT

AID 7.3 - I

BOOK

Call No.: AF510124

Authors: GOLOVIN, G. M. and PESHKOV, Ye.O.

Full Title: SPECIAL MACHINE TOOLS FOR PRECISION WORK

Transliterated Title: Spetsial'nyye stanki v priborostroyenii

PUBLISHING DATA

Originating Agency: None

Publishing House; State Scientific and Technical Publishing House of Literature on Machine-Building and Ship-building (MASHGIZ)

Date: 1952

No. pp.: 246

No. of copies: 10,000

Editorial Staff: Malov, A. N., Kand. of Tech. Sci. - editor Neklyudov, G. I., Eng. and Zhardzin, Ye. P., Eng. - Appraisers

PURPOSE: This book was written specifically to meet the educational program requirements in technical schools of the Ministry of Machine-Building and Instrument Designing and was approved for use as a textbook by students in tekhnikum.

TEXT DATA

Coverage: This book is devoted to minute description of Soviet precision type machine tools used for manufacturing of watches, gages, meters, etc. Lathes, lathe-boring machines, turret lathes and automatic and thread-cutting machines, milling and gear-cutting machines and grinding and buffing machines

NOTE: See card for GOLOVIN, G. M. for page 2 of the abstract.



PESHKOV, YE. O.

Spetsial'nyye st nki v priborostroyeni (Special machine tools in tool making, by)  
G. M. Golovin i Ye. O. Peshkov. Moskva, Mashgiz, 1951.  
246 p. diagrs. tables.

SO: N/5  
741.41  
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MAKIYENKO, Nikolay Ivanovich; KROLIK, Z.M.; OSTAPENKO, N.N.; PESHKOV, Ye.O.;  
RYABOV, N.P.; YUDIN, S.T.; DUBROVSKIY, V.A., redaktor; FEOTOVA, A.P.,  
tekhnicheskiy redaktor

[Machine-shop practice and fundamental knowledge of materials]  
Slesarnoe delo s osnovami materialovedeniia. Izd. 2-oe. Moskva, Gos.  
izd-vo selkhoz. lit-ry, 1956. 414 p. (MIRA 9:10)  
(Machine-shop practice)  
(Agricultural machinery--Repairing)

PESHKOV, Ves., dots.

East Chinese Pharmaceutic Institute in Hanking. Farmatsia, Sofia  
4 no.3:12-15 May-June 54.

1. Kand. na meditsinskite nauki i chlen na Bulgarskata kulturna  
delegatsia v Narodna republika Kitai.

(PHARMACY,  
in China)

PESHKOVA, E. S., (Veterinary Surgeon Perm' Oblast', Nerdvinsk Raion Veterinary Hospital)

Treatment of the malignant catarrhal fever in cattle

Veterinariya vol. 38, no. 10, October 1961, pp. 81-89

BORISOVA, V.D. Prinjimali uchastiye: BATURINA, Ye.A.; PESHKOVA, F.G.;  
ALEMTOV, Ye.P.; LEVUSHKINA, V.Ye.; PETROVA, N.I.; SABLINA, O.F.;  
SLYADNEV, A.P.; TEVEROVSKAYA, Kh.A.; CHIZHIKOVA, N.M. SHPAKOVSKAYA,  
L.I., red.; POTOTSKAYA, N.M., tekhn.red.

[Districts of Novosibirsk Province; physicogeographical features]  
Raiony Novosibirskoi oblasti; prirodno-ekonomicheskaja kharakteristika.  
Novosibirsk, Novosibirskoe knizhnoe izd-vo, 1959. 367 p.  
(MIRA 13:9)

(Novosibirsk Province--Economic geography)

FESHKOVA, G.A.

Interrelations between forest and steppe in the Angara Valley.  
Trudy Vost. Sib. biol. inst. SO AN SSSR no. 1:90-99 '62.

(MIRA 16:1)

(Angara Valley—Steppes)  
(Angara Valley—Forest ecology)

FESHKOVA, G.A.

Steppes of the Angara region and their relation to steppes  
of adjacent areas. Iz .Sib.otd.AN SSSR no.11:62-68 '59.  
(MIRA 13:4)

1. Vostochno-Sibirskiy filial Sibirskogo otdeleniya AN SSSR.  
(Angara Valley--Steppen)

PESNKOVA, G. A. Cand Biol Sci -- "Steppe vegetation of the Angara-River region."  
Irkutsk, 1960 (Acad Sci USSR. Botanical Inst Im V. L. Komarov. East-Siberian  
Affiliate of the Siberian<sup>a</sup> Department, Acad Sci USSR). (KL, 1-61, 196)



PESHKOVA, G.A.

Cobresia associations in the Angara region. Izv.Sib.otd.AN  
SSSR no.5:110-114 '61. (MIRA 14:6)

1. Vostochno-Sibirskiy filial Sibirskogo otdeleniya AN SSSR,  
Irkutsk.  
(Angara Valley--Plant communities)

PESHKOVA, G.A.

Along the northwestern edge of the tansy steppes. *Izv.Sib.*  
otd.AN SSSR no.11:123-127 '58. (MIRA 12:2)

1. Vostochno-Sibirskiy filial AN SSSR.  
(Baikal region--Steppes) (Tansy)

PESHKOVA, G.A.

Characteristics of the distribution of vegetation in Olovyannaya  
District. Izv. SO AN SSSR no.12. Ser. biol.-med. nauk no.3:  
33-36 '63. (MIRA 17:4)

1. Vostochno-Sibirskiy biologicheskiy institut Sibirskogo  
otdeleniya AN SSSR, Irkutsk.

PESHKOVA, G.A.

Relict communities of *Artemisieta maritima* in the Irkutsk-Balagansk forest-steppe. *Izv. Sib. otd. AN SSSR* no.1:126-130 '58.

(MIRA 11:8)

1. Vostochno-Sibirskiy filial AN SSSR.  
(Irkutsk Province--Artemisieta) (Balagansk region--Artemisieta)

3(7)

SOV/50-39-6-10, 17

AUTHOR:

Peshkova, I. I.

TITLE:

On the Problem of the Role Played by Ageostrophic Wind Deviations in the Formation of Fields of the Absolute Geopotential (K voprosu o roli ageostroficheskikh otkloneniy vetra v formirovanii poley absolyutnogo geopotentsiala)

PERIODICAL:

Meteorologiya i gidrologiya, 1959, Nr 6, pp 39 - 41 (USSR)

ABSTRACT:

An evaluation is made here of the influence exerted by the ageostrophic character of atmospheric movements on the process in the formation of local changes in the monthly average fields of the absolute geopotential. In the synoptic practice, charts of earth-near pressure, of absolute topography, of temperature and other meteorological elements, averaged on respective time intervals, are used as initial data in the investigation of macroprocesses with a duration of from a few days to one month. There are also schemes of the hydrodynamic long-term forecast of atmospheric pressure (Refs 4,9). One of the possible schemes of such a forecast is given here. This scheme is an answer to the problem mentioned above. As compared to other

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On the Problem of the Role Played by Ageostrophic  
Wind Deviations in the Formation of Fields of the Absolute Geopotential

SOV/50-59-4-10/17

similar schemes this one here is more general and is based on less rough assumptions. In deriving the formula, the present paper proceeds from equation (1) for the vertical component of the eddy of velocity. This formula has been obtained from the equations averaged with respect to time from the dynamics of the atmosphere (Ref 3). It was simplified following recommendations made in the paper (Ref 7). Furthermore, the summands depending on the turbulent tensions were left out. According to formula (2) the quantities contained in formula (1) are replaced and formula (3) is derived. On the strength of the latter, the average local variations of the heights of isobaric planes in a certain month consist of two parts: the eddy- and the diverging part. In determining these parts, the monthly averages of the field of the absolute geopotential and of the wind must be taken from the preceding month for the forecast. Empirical data clearly show, however, that the local variations of the monthly average of the fields of absolute geopotential do not only depend on the dynamic and kinematic factors considered when deriving formula (3),

Card 2/3

On the Problem of the Role Played by Ageostrophic  
Wind Deviations in the Formation of Fields of the Absolute  $\delta N$

but also and to a great extent on the thermal factor. Therefore the right part of formula (3) must be completed by an additional summand  $\delta N$ , and formula (4) is thus obtained.  $\delta N$  is equal to the monthly average of the "normal" local variation of the geopotential height of the isobaric plane. This formula (4) was used in the paper (Ref 8 in English language). The results obtained in the USA are shown here. The author (L. L. Kovaleva) has begun computations with this formula (4), in which the technique of computing the quantities contained in formula (4) is altered. Provisional results confirm the principal conclusion that the ageostrophic character of atmospheric movements must be taken into account when setting up the scheme of a long-term weather forecast. There are 1 table and 9 references, 7 of which are Soviet.

Card 3/3

DOMBKOVSKAYA, Ye.P.; PEBNEVA, I.I.

Analysis of conditions promoting considerable rainfall during the passage of cold fronts over central areas of the European part of the U.S.S.R. in the warm part of the year. Sbor. rab. po sinop. no.5:32-41 '60. (MIRA 14:8)

1. Upravleniye gidrometeorologicheskoy sluzhby tsentral'nykh oblastey Yevropeyskoy territorii SSSR.  
(Rain and rainfall)



PESHKOVA, K.Kh., starshiy inzh.

Under the sultry sky of Turkmenistan. Put' / 1 put. ~~khob.~~ 6  
no.2:10 '62. (MIRA 15:2)

1. Mariyskaya distantiya Ashkhabadskoy dorogi.  
(Turkmenistan--Railroads--Maintenance and repair)

BANKOV, L.I., inzh.; GURMAN, R.M., inzh.; PESHKOV, I.B., inzh.

Winding wires with lavsan fiber insulation. Elektrotehnika 34 no.12:  
10-13 D '63. (MIRA 17:1)

AKKERMAN, V.V., starshiy nauchnyy sotrudnik; ALEKSANDROVA, N.M., nauchnyy  
sotrudnik; PESHKOVA, L.Ya., nauchnyy sotrudnik

Effectiveness of modern methods of treating polycythemia. Akt.vop.  
perel.krovi no.4:193-194 '55. (MIRA 13:1)

1. Gematologicheskaya klinika Leningradskogo instituta perelivaniya  
krovi (zav. klinikoy - prof. S.I. Sherman).  
(ERYTHREMIA)

PESHKOVA, N. (Sverdlovsk)

Using an old yardstick. Sov.profsoiuzy 19 no.5:8-9 Mr '63.  
(MIRA 16:2)

(Sverdlovsk—Trade unions—Officers)  
(Sverdlovsk—Machinery industry—Management)

PESHKOVA, N. (g.Kiyev)

The plant is striding toward tomorrow. Sov. profsoiuzy 17 no.19:  
23-26 0 '61. (MIRA 14:9)  
(Kiev--Instrument industry) (Socialist competition)

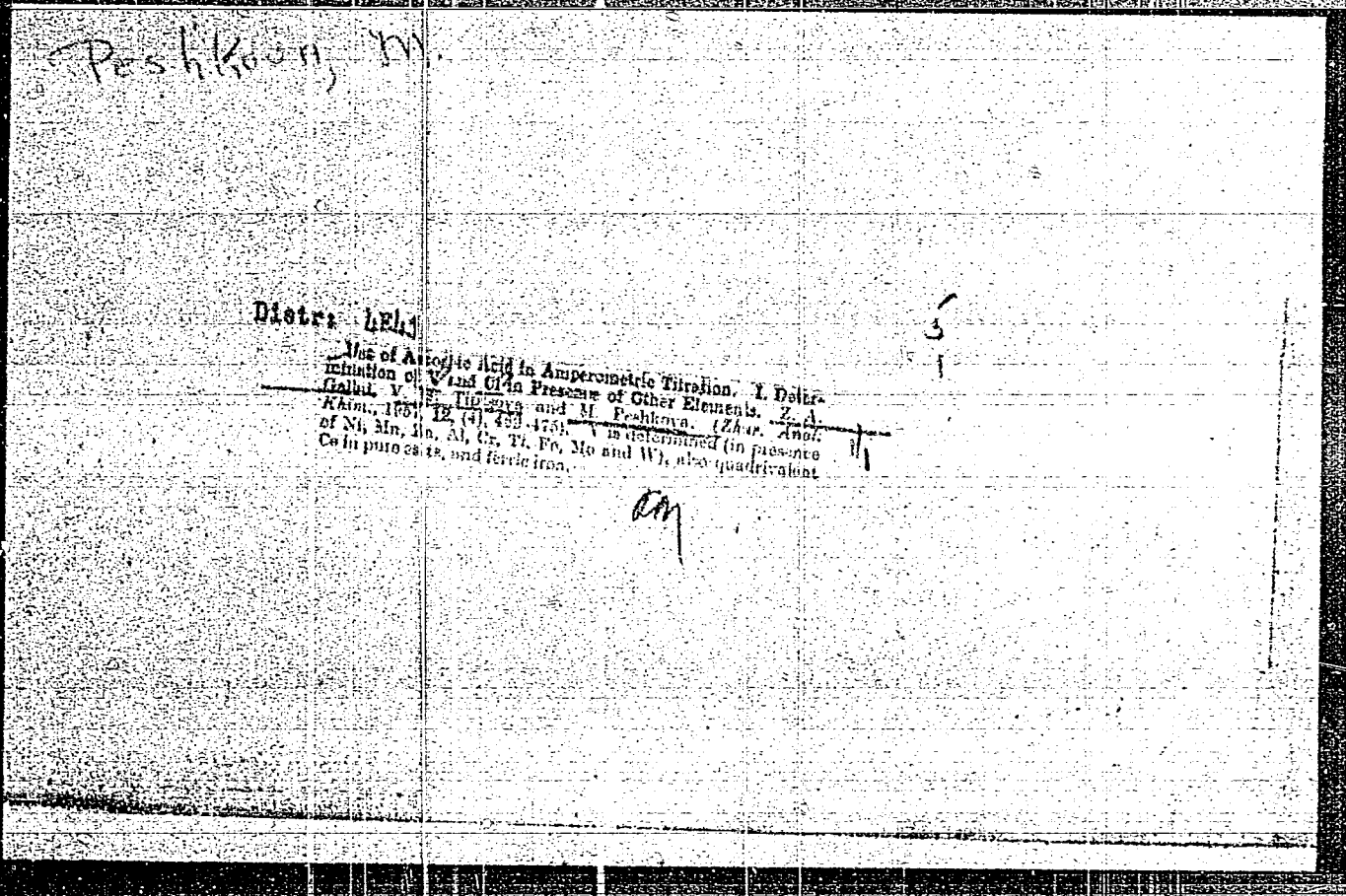
IVANOV, V.F.; DAMASKIN, B.B.; FRUMKIN, A.N.; IVASHCHENKO, A.A.; PESKOVA, A.G.

Differential capacity curves of a mercury electrode at various electrolyte concentrations. *Elektrokhimiya* 1 no. 11 1965 p. 2165-2166. (USSR) 1P 1.

1. Moskoveriy gosudarstvennyy universitet 1 Dzhukovskiy mekhanicheskii institut.

ALIMARIN, I.P.; PRZHEVAL'SKIY, Ye.S.; PESHKOVA, V.M.

Main trends in scientific research work of the Department of Analytical  
Chemistry. Uch.zap.Mosk.un.174:171-175 '55. (MIRA 9:7)  
(Chemistry, Analytical)





PESHKOVA, N. (sovkhos Budeskala, Latviyskaya SSR)

Take care of the day and the year will take care of itself.  
Sov. profsoiuzy 18 no.5:7-8 Mr '62. (MIRA 15:3)

1. Spetsial'nyy korrespondent zhurnala "Sovetskiye profsoyuzy."  
(Latvia--State farms)

PESHKOVA, V.A. [Pieshkova, V.O.]

Study on biological and dynamic characteristics of the concentration  
of alkaloids in *Physochlaina physaloides* (L.) G. Don. *Farmatsev. zhur*  
19 no.4:23-28 '64. (MIRA 17:11)

1. Kafedra farmakognozii i botaniki Leningradskogo khimiko-farmatsev-  
ticheskogo instituta.

PESHKOVA, V.A.

Materials on the geographical distribution of *Physochlania physaloides*.  
Trudy Len. khim.-farm. inst. no.17:38-44 '64.

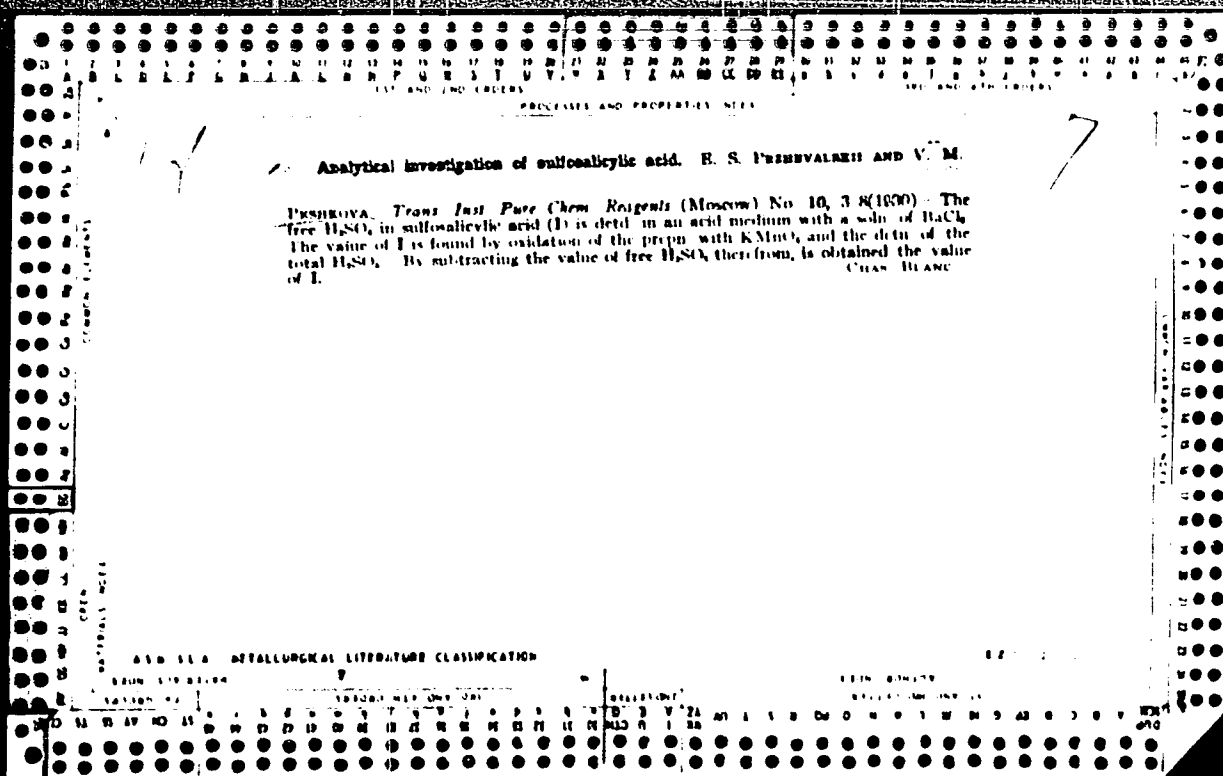
(MIRA 18:1)

1. Kafedra farmakognozii Leningradskogo khimiko-farmatsevticheskogo  
instituta.

PROCESSES AND PROPERTIES INDEX

Preparation of nitrates of cobalt and manganese. Y. M. FRANKOVA. *Trans. Inst. Pure Chem. Reagents (Moscow)*, No. 9, 87-93(1930). — *Prepn. of Co(NO<sub>3</sub>)<sub>2</sub> from crudes conig. Mn.* — The prepn. of chemically pure Co(NO<sub>3</sub>)<sub>2</sub> free from Mn preceded by purification of tech. CoCO<sub>3</sub> by way of either oxidation with H<sub>2</sub>O<sub>2</sub> or treatment with oxalates, has proved impractical, because poor yields are obtained. Therefore, purification by way of cobaltic and other complex salts of Co is here recommended. *Prepn. of chemically pure Mn(NO<sub>3</sub>)<sub>2</sub> from ferromanganese.* — One kg. of Fe-Mn (70% Mn and about 10% Fe) was slowly treated with 5 l. of HNO<sub>3</sub>, d. 1.2, first at 5-7° and then on the water bath. The soln. was filtered, Fe pptd. in a usual manner, a portion of Mn(NO<sub>3</sub>)<sub>2</sub> pptd. by NH<sub>4</sub>HCO<sub>3</sub>, as MnCO<sub>3</sub> was washed and returned to the main soln., the whole was heated to a boil, and then evapd. at 70° with occasional addn. of HNO<sub>3</sub>. There was obtained a yield of 30% of chemically pure Mn(NO<sub>3</sub>)<sub>2</sub>·6H<sub>2</sub>O. CHAR. BLANC

METALLURGICAL LITERATURE CLASSIFICATION



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

PROCESSES AND PROPERTIES

7

Determination of chloride in potassium iodide. V. M. Prokhovs and E. S. Prchevalskii. *J. Gen. Chem. (U.S.S.R.)*, 51(1933) Berg's method for detg. small amounts of Cl in KI soln is inaccurate. The following modification gives better results: Dissolve 1 g of KI in 50 cc. of H<sub>2</sub>O and 5 cc. of H<sub>2</sub>SO<sub>4</sub> (d. 1.1), add 4 cc. of 5% K<sub>2</sub>MnO<sub>4</sub> soln. and shake vigorously. Add 5-6 drops of 30% H<sub>2</sub>O<sub>2</sub> and again shake well. Make up to 60 cc., filter and use half of the filtrate. Put the free I<sub>2</sub> in a separatory funnel with benzene. Transfer the colorless aq. soln to a 150-cc. Erlenmeyer flask, dil. to 100 cc. and titrate with 0.1 N AgNO<sub>3</sub> soln. S. I. Markovskiy

GENERAL NOTES

MATERIALS

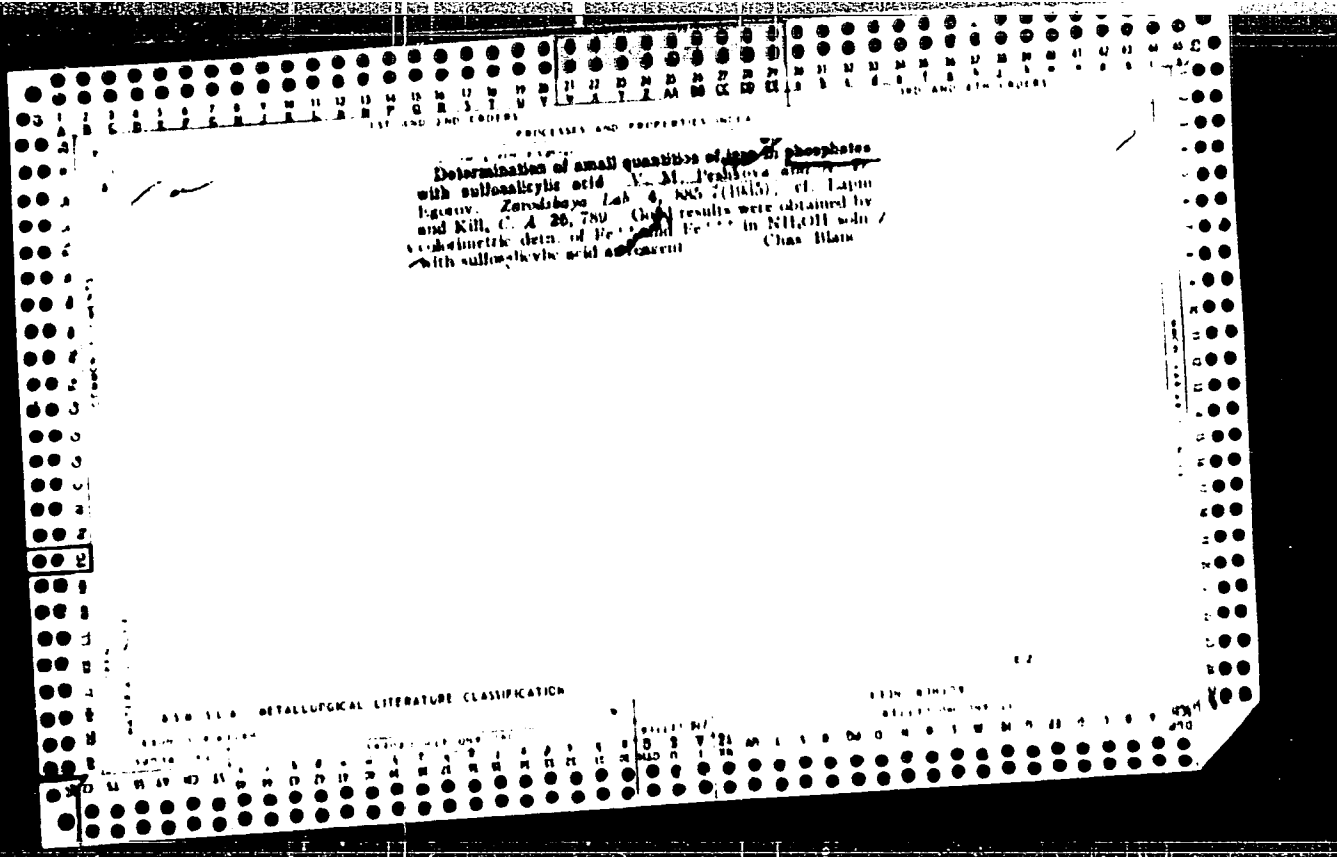
33-33A METALLURGICAL LITERATURE CLASSIFICATION

FROM STEEL

GROUP

SECTION

ITEM



PROCESS AND PROPERTIES INDEX

The use of Aluminum in the determination of small quantities of aluminum V. M. Peshkova, *Trans. Inst. Pure Chem. Reagents* (U. S. S. R.) No. 10, 1963

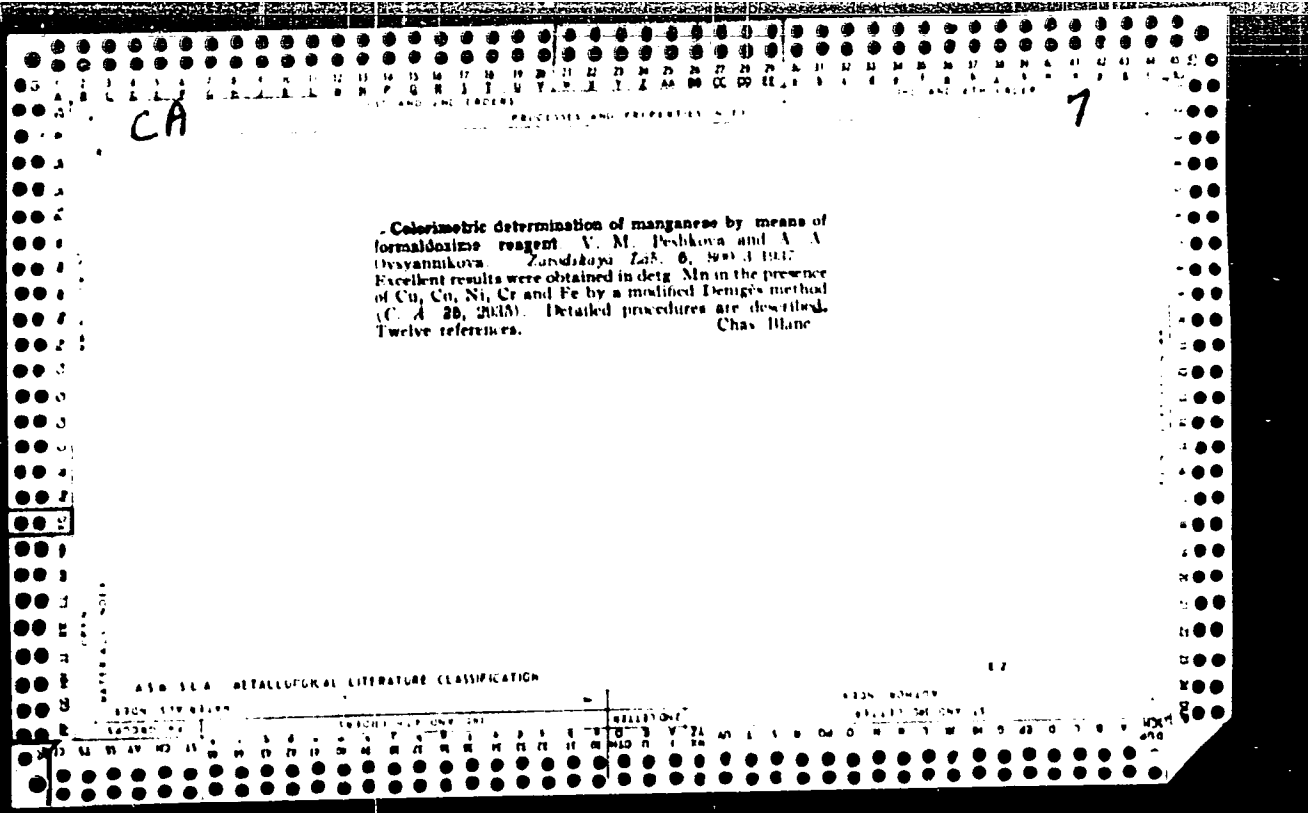
In 15 cc. of the neutral solution add 5 cc. of N HCl and 5 cc. of 3 N NH<sub>4</sub>Ac and 5 cc. of 0.1% Aluminum reagent. After 5 min. add 0.5 cc. 3 N NaOH and 0.5 cc. 5 N NH<sub>4</sub> carbonate as little as 2.5 γ Al will give the test, but the color varies somewhat if alkali or alk. earth ions are present. Fe should be absent or added to the standard.

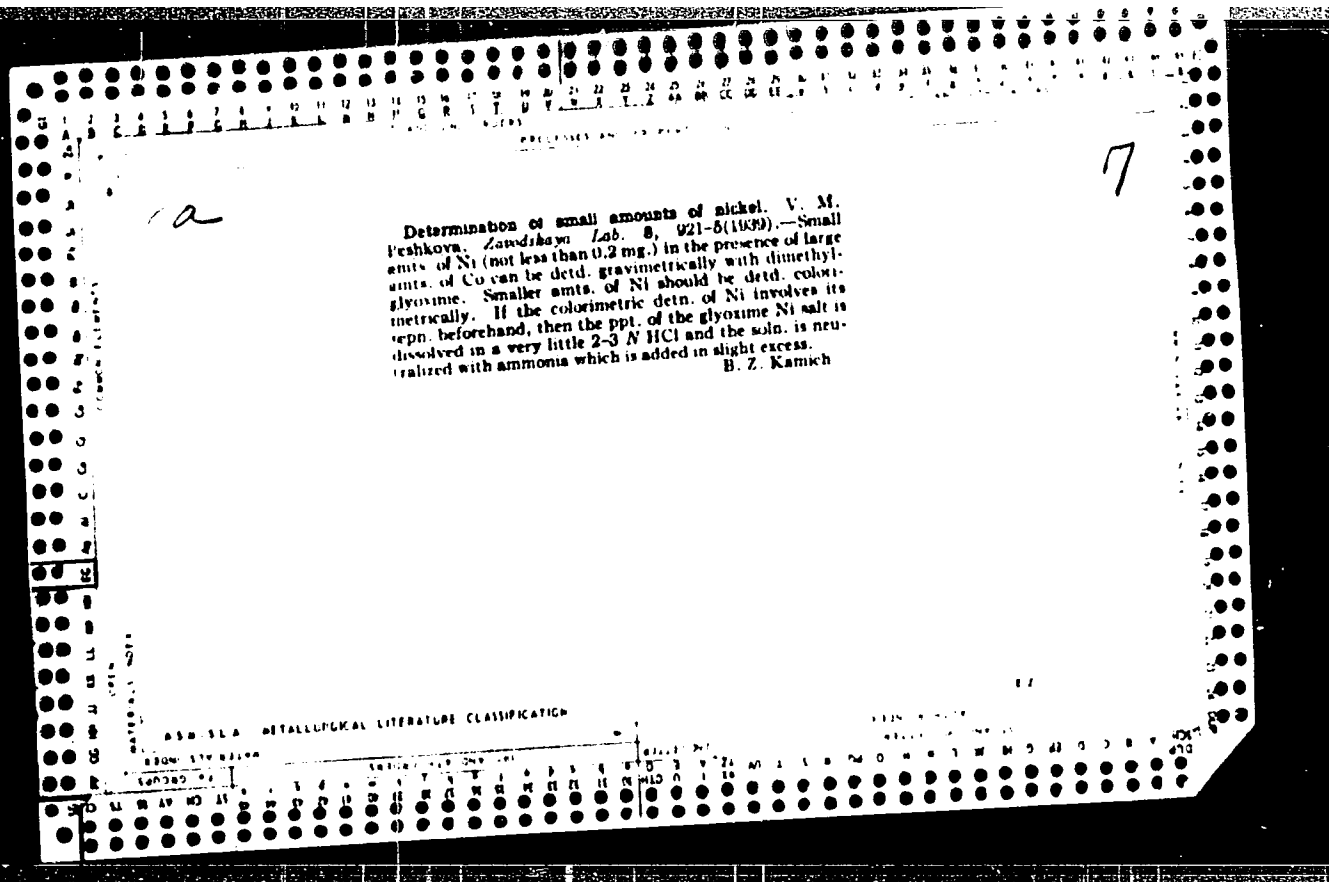
Lewis W. Butz

ADD TO A METALLURGICAL LITERATURE CLASSIFICATION

12







11

*M*

**\*Determination of Small Amounts of Nickel in the Presence of Other Metals.**  
V. M. Preshkova (*Zavod. Lab. (Works' Lab.)*, 1940, 9, 407-408; *C. Abstr.*, 1940, 34, 7208). [In Russian.] *Cf. Met. Abs.*, this vol., p. 18. Various methods

for the determination of nickel in the presence of Cu, Fe, Cr, Al, or Co were tested. The reaction with  $\alpha$ -benzylidioxime is somewhat more sensitive than that with dimethylglyoxime and there is less danger of the formation of an impure precipitate when an alcoholic solution of reagent is used.

ASSOCIATED METALLURGICAL LITERATURE CLASSIFICATION



ca

Formation and properties of nickel 1,3-cyclohexane dione diosime. V. M. Beshkova, M. I. Vedernikova, and N. I. Gontarova. *Zh. Anal. Khim.* 3, 300-72 (1948). — To 70-80 ml. of aq. NiSO<sub>4</sub>, add methyl orange, heat to boiling, add 12-15 ml. of 0.5% aq. soln. of 1,2-cyclohexanedione diosime and enough NH<sub>4</sub>OH to bring out a yellow color. After 1-1.5 hrs. filter through a glass filter, wash, and dry at 110-20°. In an excess of NH<sub>4</sub>OH, the ppt. is colloidal but quickly coagulates upon addition of NH<sub>4</sub>Cl or NH<sub>4</sub>NO<sub>3</sub>. A 3-4-fold excess of reagent has no effect on the completeness of pptn. In the presence of much ZnSO<sub>4</sub> (0.5 g.), add to the soln. 2 g. of NH<sub>4</sub>Cl, enough 25% NH<sub>4</sub>OH to clear the soln., 5 ml. of 0.5% reagent soln., and finish as before. In the presence of Co, add to the soln. 0.25 g. of AcONa to give pH approx 3.25, and det. Ni as if it were alone. When the ratio Ni:Co is 1:10-1:100, 4 times the theoretically required reagent should be taken; if the Ni:Co ratio is 1:200, 6.7 times of the theoretically required quantity should be used. If iron is present, it can be either fixed as tartrate in a medium alk. to litmus or pptd. with NaF to prevent interference with Ni detn. M. Huseh

SHLENSKAYA, V.I.; KHVOSTOVA, V.P.; PESHKOVA, V.M.

Spectrophotometric study of the interaction of palladium ions  
with potassium thiocyanate. Zhur.anal.khim. 17 no.5:598-603  
Ag '62. (MIRA 16:3)

1. M.V.Lomonosov Moscow State University.  
(Palladium compounds) (Potassium thiocyanate) (Spectrophotometry)

FESHKOVA, V.M.; IGNAT'YEVA, N.G.; OZEROVA, G.P.

Determination of rhenium with  $\alpha$ -furyl dioxime in the presence  
of molybdenum. Zhur.anal.khim. 18 no.4:496-499 Ap '63. (MIRA 16:6)

1. M.V.Lomonosov Moscow State University.  
(Rhenium—Analysis) (Molybdenum—Analysis)

PESHKOVA, V.M.; PEN AN

Complex formation of hafnium with chloride, nitrate, and sulfate  
ions studied by the distribution method. Vest. Mosk. un. Ser. 2: Khim.  
18 no. 1: 40-42 Ja-F '63. (MIRA 16:5)

1. Kafedra analiticheskoy khimii Moskovskogo universiteta.  
(Hafnium compounds)



PESHKOVA, V. M., PEN AN[P<sup>1</sup>eng Ang]

Complex formation in the system hafnium - selenoyl acetate -  
benzene - H<sub>2</sub>O investigated by the distribution method. Izv.  
vys. ucheb. zav.; khim. i khim. tekhn. 5 no.5:694-697 '62.  
(MIRA 16:1)

1. Moskovskiy gosudarstvennyy universitet imeni Lomonosova,  
kafedra analiticheskoy khimii.

(Hafnium compounds)

SAVOSTINA, V.M.; ASTAKHOVA, Ye.K.; PESHKOVA, V.M.

Study of the properties of  $\alpha$ -dioximes having analytical application.  
Vest.Mosk.un.Ser.2:Khim. 18 no.2:43-45 Mr-Ap '63. (MIRA 16:5)

1. Kafedra analiticheskoy khimii Moskovskogo universiteta.  
(Oximes) (Chemistry, Analytical)

MEL'CHAKOVA, N. V.; PESHKOVA, V. M.

Study of the complex formation by the method of distribution  
in the system zirconium - selenoyl acetone - benzene - water.  
Vest. Mosk. un. Ser. 2: Khim. 16 [1.e.17], no.6:61-63 N-D '62.  
(MIRA 16:1)

1. Kafedra analiticheskoy khimii Moskovskogo universiteta.

(Complex compounds) (Systems(Chemistry))

PESHKOVA, V.M.; IGNAT'YEVA, N.G.

1,2-Cycloheptanedione dioxime as a reagent for the gravimetric and extraction-photometric determination of nickel in the presence of copper. Zhur.anal.khim. 17 no.9:1086-1090 D '62.  
(MIRA 16:2)

1. M.V. Lomonosov Moscow State University.  
(Nickel--Analysis) (Cycloheptanedione)

PESHKOVA, V. M.

Peshkova, V. M. and Shlenskaja, V. I. (Chemistry) Compounds of bismuth with dioximes.  
P. 103

Chair of Analytical Chemistry  
Jan. 3, 1951

SO: Herald of the Moscow University, Series on Physics-Mathematics and Natural  
Sciences, No. 3, No. 5, 1951

USSR/Chemistry - Nickel

May/June 52

PESHKOVA, V. M.

"Amperometric Titration of Nickel with Dioximes," V. M. Peshkova and E. A. Galley, Moscow State Univ. ~~in Russian~~

Zhur Anal Khim, Vol 7, No 3, pp 152-157

Dimethylglyoxime<sup>(I)</sup>, Na-dimethylglyoxime<sup>(II)</sup> and dioximecyclohexanedione<sup>(III)</sup> can be used for the amperometric titration of <sup>Ni</sup>nickel in the pure salts and in the presence of Fe<sup>3+</sup>, Al<sup>3+</sup>, Cr<sup>3+</sup> and Zn<sup>2+</sup>. In titrating with <sup>(I)</sup>dimethylglyoxime, they recommend sodium acetate as a background. Titration can be conducted at room temperature without the removal of <sup>O</sup>oxygen from <sup>soln.</sup>solution. <sup>(III)</sup>Dioximecyclohexanedione is to be preferred to <sup>(I)</sup>dimethylglyoxime and <sup>(II)</sup>Na-dimethylglyoxime, since it permits the detection of <sup>Ni</sup>nickel among large quantities of Al, Fe, Cr and Zn<sup>2+</sup>. The great stability of nickel-dioximecyclohexanedione in comparison with nickel-dimethylglyoxime was confirmed amperometrically.

PECHKOVA V.M.

USSR.

Methylglyoxime and dimethylethyglyoxime in the determination of nickel. V. M. Peshkova, B. A. Gubova, I. I. Nazarenko, and I. V. Puzdrenkova. *Vestnik Mosk. Univ.* 7, No. 9, Ser. Fiz.-Mat. i Estestvo. Nauk No. 6, 49-53(1952).—Methylglyoxime (I) can be used in the gravimetric detn. of Ni in the pH range 7.4-9.1; also colorimetrically, alone, or in the presence of Co, following a room-temp. C.H. extn. of the Ni complex at pH 9.3-10.6. HON: CMeCl<sub>2</sub>:NOH is suitable for the gravimetric Ni detn. at pH 5.8-9.3, alone or in the presence of Fe, Al, Cr; colorimetrically it can be used as I.

Gerard Aufleger

AI 62





FESHKOVA, V. M.

4

U S S R .

1,2-Dimethylglyoxime and methylglyoxime in the determina-  
tion of palladium. V. M. Peshkova and V. I. Salenskaya.  
Vestnik Mosk. Univ. Ser. Fiz. Mat. i Estestv.  
Nauk No. 2, 129-33(1953).—In the gravimetric detn. of Pd  
with (MeC:NOH), best results were obtained in a 2N HCl  
soln. Methylglyoxime was advantageously employed in  
the colorimetric detn. of Pd, alone or in the presence of Pt  
and Ir, but was unsuitable for the gravimetric detn.

Gerard Aufesser

*Chain Analytical Chem.*

PESHKOVA, V.M.

Analytical Abs.  
Vol. 1 No. 1  
Mar. 1954  
Inorganic Chemistry

8 (4) *item*

487  $\alpha$ -Furildioxime as a reagent for gravimetric and colorimetric determination of nickel. V. M. Peshkova, G. A. Gohcharova, E. A. Gribova and I. V. Puzhrenkova (*J. Anal. Chem., U.S.S.R.*, 1953, 8 (2), 114-118) —  $\alpha$ -Furildioxime is suitable for micro-gravimetric determinations of Ni, e.g., for 0.5 mg of Ni in 50 ml of soln. The pH for quant. pptn. is in the range 6.4 to 10.5. In presence of tartrate Fe and Al do not interfere at concn. up to 100 times that of the Ni. Colorimetric determinations can be carried out with chloroform or benzene extracts of the complex from soln. of pH 7.3 to 8.4.

G. S. SMITH

*Moscow State U.*

PESHKOVA, V. N.

"The Theory and Practical Utilization of Oximes in Analysis." Dr. Ocher. Sci.,  
Moscow State U, Moscow, 1954. (Vest Mosk U, 10 Dec 54)

Survey of Scientific and Technical Dissertations Defended at USSR  
Higher Educational Institutions (12)  
SC: Sun. No. 556, 24 Jun 55

PESHKOVA, V. K.

FD-678

USSR/Chemistry - Palladium, Oximes

Card 1/1 : Pub. 129 - 13/25

Author : Peshkova, V. M.; Zhenskaya, V. I.; and Gashevskaya, A. I.

Title : Problem of the determination of palladium by oximes

Periodical : Vest. Mosk. un., Ser. fizikomat. i yest. nauk, Vol. 9, No. 3,  
83-90, May 1954

Abstract : Study the use of methyl and dimethylglyoxime and salicylaldehyde  
for the colorimetric determination of palladium in nonaqueous  
solvents. Find that methylglyoxime and salicylaldehyde can be  
used for the above determinations in the presence of other elements,  
but nonsymmetrical methylglyoxime is the most sensitive reagent  
for the colorimetric determination of palladium.

Institution : Chair of Analytical Chemistry

Submitted : June 25, 1953

PESHKOVA, V.M.; SHLENSKAYA, V.I.; RASHEVSKAYA, A.I.

On the problem of determining palladium by oximes. Vest.Mosk.  
un. 9 no.5:83-90 My '54. (MIRA 7:7)

1. Kafedra analiticheskoy khimii.  
(Palladium) (Oximes)

PESHKOVA, V. M.  
USSR/Chemistry - Analytical

FD-1145

Card 1/1            Pub. 129-9/23

Author            : Peshkova, V. M.; Gallay, Z. A.

Title             : ~~Amperometric methods for determining titanium~~  
Amperometric methods for determining titanium

Periodical        : Vest. Mosk. un., Ser. fizikomat. 1 yest. nauk, 9, No 7, 73-81, Oct 1954

Abstract          : Cupferron was found to be a satisfactory reagent for the amperometric titration of titanium (IV) in pure salts and in the presence of Al, Ni, Zn, and Cr. Redox reactions can be utilized for the amperometric titrations by increasing the stability of the titanium solution. Ferric chloride was found to be the best oxidizing agent for determining titanium in steels. Nineteen references (eleven USSR).

Institution       : Chair of Analytical Chemistry

Submitted        : February 18, 1954

PESHKOVA, Valentina Moiseyevna.

Academic degree of Doctor of Chemical Sciences, based on her defense  
28 February 1955, in the Council of Moscow Order of Lenin State  
University imeni Lomonosov, of her dissertation entitled: "Theoretical  
Bases and Practical Applications of Oximes in Analysis."

Academic degree and/or title: Doctor of Sciences

SO: Decisions of VAK, List no. 14, 11 June 55, Byulleten' MVO SSSR,  
No. 15, Aug 56, Moscow, pp. 5-24, Uncl. JPRS/NY-537

PESHKOVA, VM.

Effect of the structure of the oxime molecules on the properties of its compounds with metals. V. M. Peshkova (M. V. Lomonosov State Univ., Moscow). *Ann. Chim. (Paris)* 19, 84-85 (1955); *J. Anal. Chem. U.S.S.R.* 10, 77-83 (1955) (Engl. translation).—The nature of a dioxime determines the pH at which it precipitates metals, primarily Ni. As the length of the alkyl chain increases, the pH at which Ni is precipitated is lowered. The benzene ring has a similar effect, *o*-benzyl dioxime precipitates Ni at pH 4.2-11. The most stable Ni precipitate is formed by the dioxime of 1,2-cyclohexanedione. The mol. wt. of the dioxime and its solubility in H<sub>2</sub>O do not greatly affect the properties of the Ni precipitate. The mol. structure of dioximes also affects their suitability for colorimetric determination of their metal complexes. A number of dioximes were studied for their molar coefficients of extinction and their coefficients of distribution between an aqueous and nonaqueous medium (extraction).  
M. Hosh

AA  
M91



PESHKOVA, V.M., doktor khimicheskikh nauk.

\*\*\*\*\*

Production of new reagents. Zav.lab. 21 no.10:1269-1270 '55.  
(MLRA 9:1)

1.Moskovskiy Gosudarstvenny universitet.  
(Chemical tests and reagents)

USSR/Analytical Chemistry - Analysis of Inorganic Substances, G-2

Abst Journal: Referat Zhur - Khimiya, No 19, 1956, 61848

Author: Peshkova, V. M., Shlenskaya, V. I., Rashevskaya, A. I.

Institution: None

Title: Colorimetric Determination of Palladium with Oximes

Original

Periodical: Izv. Sektora platiny IONKh AN SSSR, 1955, No 32, 61-74

Abstract: Compounds of Pd with dimethylglyoxime (I), methylglyoxime (II) and salicylaldoxime (III) are dissolved in nonaqueous solvents. Yellow solutions of Pd compounds with II or III in C<sub>6</sub>H<sub>6</sub> or CHCl<sub>3</sub> have high values of molar coefficient of light absorption which renders them convenient for photometric determination of Pd without preliminary separation of the associated elements. The oximates are extracted at pH 1-4 in the presence of excess II and III. In lieu of III there can be added to the solution of Pd salt, with the same result, successively salicylic aldehyde (IV) and then hydroxylamine (V) although on simply mixing IV and V, in the absence of Pd, III is not formed.

Card 1/2

Peshkova, Y. M.

✓ Research in analytical chemistry. J. P. Shorain, E. S. Puzhen'kikh, and ~~Y. M. Peshkova~~ Uchenye Zapiski, Moskov. Gosudarst. Univ. im. M. V. Lomonosova No. 174, 171-5(1955).--A review of work of the department since 1929 reveals an emphasis on problems of extraction of inorg. and org. complex compds. as a means of analytical seon. The use of org. reagents has been studied for many applications in the analytical chemistry of metallic elements.

C. H. Fuchsman

dam m

PE 5118 0711, 1111  
TOPCHIYEVA, K.V.; PESHKOVA, Y.M.; SHAKHOVA, Z.F.; ALIMARIN, I.P.; NOVOSELOVA,  
A.V.; SPITSYN, V.I.; LUTSENKO, I.P.; GERASIMOV, Ya.I.; NESMEYANOV,  
A.N.; TERENT'YEV, A.P.; POTAPOV, V.M.; GIBALO, I.M.

B.S. Przheval'skii; obituary. Vest. Mosk. un. Ser. mat. mekh., astron.,  
fiz., khim. 11 no.2:205-207 '56. (MIRA 10:12)  
(Przheval'skii, Evgenii Stepanovich, 1879-1956)

ALIMARIN, I.P.; PESHKOVA, V.M., doktor khimicheskikh nauk.

Spectrophotometric and colorimetric analytical methods; all-Union conference. Vest. AN SSSR 26 no.3:133-135 Mr '56. (MLRA 9:6)

1.Chlen-korrespondent AN SSSR (for Alimarin).  
(Colorimetry) (Spectrophotometry)

PESHKOVA, V. M.  
~~Peshkova, V. M.~~

9

JOURNAL OF ANALYTICAL CHEMISTRY  
Vol XII, Nr 4, 1957

USE OF ASCORBIC ACID IN AMPEROMETRIC TITRATION

COMMUNICATION I. DETERMINATION OF VANADIUM AND CERIUM IN THE PRESENCE OF OTHER ELEMENTS

*Chern*  
S. A. Gallat, V. G. Tipligova and V. M. Peshkova

M. V. Lomonosov Moscow State University

Ascorbic acid is oxidized on a rotating platinum electrode, the half-wave potential depending on the acidity of the solution and on the concentration of a reagent. The equality  $I_{1/2} \propto C$  is true up to the concentration of solutions being  $10^{-3} N$ .

Ascorbic acid solution, stabilized with complexone III and formic acid, may be successfully applied as a reagent in amperometric titration with the use of oxidation-reduction potentials.

Ascorbic acid may be used for the determination of vanadium in pure salts and in the presence of nickel, manganese, zinc, aluminum, chromium, titanium, as well as iron, molybdenum, and tungsten.

A method has been developed for the determination of cerium in pure salts, and conditions have been found out for the amperometric determination of tetravalent cerium and trivalent iron with ascorbic acid.

*PM for GMS*

Решено 1.7.77

PLANS I BOOK REVIEWS 807/252

5(a)

Abdumalykovich 8008. Institut khimicheskoy i metallurgicheskoy khimii. Khimiya redkikh elementov, 1979. 5 (Chemistry of Rare Elements, Pt. 5) Moscow, 1979. 115 p. 4,500 copies printed. Errors slip inserted.

Ed. of Publishing House: Yu. S. Shlyapnikov; Subj. Eds.: A. A. Pavlovskiy, A. A. Korotkiy, I. V. Kuznetsov (Resp. Ed.), S. A. Pogodin, Ye. Ye. Buda, V. G. Trener, and G. P. Zupash (Secretary).

PURPOSE: The book is intended for scientists and engineers concerned with the study and utilization of rare elements.

COVERS: The book is a collection of papers on investigations in the chemistry of rare elements conducted at the Institute of Chemistry and Metallurgy (Imeni S. S. Bazarova (Institute of General and Inorganic Chemistry (Imeni S. S. Bazarova)). No personalities are mentioned. There are 18 references; 59 Soviet, 23 English, 11 German, 15 French, 4 Italian, and 1 Japanese.

Elyashberg, V. Ye., and V. B. Polukhov. Investigation of solubility in the System Lithium Carbonate-Lithium Sulfate-Water at 50°C 3

Broselova, A. V., and L. P. Kambartalova. Vapor Pressure of Saturated Solutions in the System (NH<sub>4</sub>)<sub>2</sub>SO<sub>4</sub> - NaOH - H<sub>2</sub>O 6

Brusov, G. G., V. B. Polukhov, V. Ye. Elyashberg, and E. I. Chupina. Investigation of Solubility in the System Lithium Sulfate-Aluminum Sulfate-Water at 50°C 18

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AVAILABILITY: Library of Congress

Card 3/3

TR/AG 10-1-59

(11)

Peshkova, U. N.

Study of the complex compounds of neodymium, praseodymium, and erbium with citric acid by the spectrophotometric method. U. N. Peshkova and M. I. Gerasimova. *Zh. Neorg. Khim.* 2, 1956, 1037. The process of complex formation for Nd, Er, and Pr with citric acid, and the effect of pH and the ratio of the reactants was studied by detg. changes in the absorption spectra for their salts. For Nd and Pr, the formation of 4 compds. was indicated by shifts in the max. The complexes of Pr are formed in a higher pH range than are those of Nd. The compds. of Pr are less stable in alk. media and decomp. at pH > 12.7. The formation of only 1 complex compd. was observed for Er.

5  
2

Distr: #E4J/4E3d

PM

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ASTAKHOVA, Ye.K.; SAVOSTINA, V.M.; PESHKOVA, V.M.

Determination of the stability constants of complex compounds of  
nickel and cobalt. Zhur.neorg.khim. 9 no.4:817-821 Ap '64.  
(MIRA 17:4)

137-58.2-4412

Translation from: Referativnyy zhurnal, Metallurgiya, 1958, Nr 2, p 302 (USSR)

AUTHORS: Peshkova, V. M., Gallay, Z. A., Alekseyeva, N. N.

TITLE: Amperometric Determination of Molybdenum (Amperometri-  
cheskoye opredeleniye molibdena)

PERIODICAL: Khimiya redkikh elementov, Nr 3, 1957, pp 119-130

ABSTRACT: A rotating Pt electrode and a GINTsVETMET polarograph were used in the amperometric titration of  $\text{Mo}^{6+}$  with a  $\text{Cr}^{2+}$  solution. The  $\text{Cr}^{2+}$  oxidized at the Pt electrode, at +0.4 v. on a background of HCl and  $\text{H}_2\text{SO}_4$ . this produced a diffusion current proportional to the concentration.  $\text{Mo}^{4+}$  and  $\text{Mo}^{5+}$  do not yield a diffusion current in such conditions. On a background of 4N HCl, the sensitivity threshold was 1.5 mg Mo in a 25-cc solution; on a 4N  $\text{H}_2\text{SO}_4$  background the threshold was 0.5 mg Mo in a 25-cc solution. In the anode region  $\text{Mn}^{2+}$ ,  $\text{Zn}^{2+}$ ,  $\text{Al}^{3+}$ ,  $\text{Cr}^{3+}$ , and  $\text{Ni}^{2+}$  did not exhibit a polarographic wave, and the  $\text{Ti}^{4+}$  was titrated with a  $\text{Cr}^{3+}$  solution.  $\text{Mo}^{6+}$ , however, was titrated first, because  $E_{\text{Mo}^{6+}/\text{Mo}^{5+}} + 0.51$  volts, and  $E_{\text{Ti}^{4+}/\text{Ti}^{3+}} - 0.04$

Card 1/2

137-58-2-4412

### Amperometric Determination of Molybdenum

Ti ratio of 1:3; when glacial acetic acid was present, it could be titrated up to a ratio of 1:4. When oxalic acid or  $H_3PO_4$  was present, Mo could be titrated in the presence of W up to an Mo/W ratio of 1:15 (within an error of 0.03 mg). In the absence of Mo, W could be titrated with a  $Cr^{2+}$  solution on a background of 7N HCl. When  $Fe^{3+}$  was present, two titrations were necessary: one at 0 volts to determine the  $Fe^{3+}$ , and one at +0.5 volts to determine the sum of  $Fe^{3+} + Mo^{6+}$ . The most suitable range of Mo/Fe ratios was that from 1:5 to 1:10 (the error being 0.1%). Larger Fe contents were determined by chromatography. Cu had a catalytic effect on  $Mo^{6+}$  and  $Fe^{3+}$  systems, and in its presence the latter elements could be titrated simultaneously at +0.5 volts. Cu exhibited a similar effect on  $W^{6+}$  and  $Cr^{2+}$  systems. This method is used to determine the Mo in Fe-Mo and in steels.

N. G.

#### 1. Molybdenum—~~Amperometric~~—Determination

Card 2/2

PECHKOVA, V.M.

Preparation of the microstate of ...  
dinaphthyl ...

... the fraction b. 230-34° ...  
from EtO and recrystd. from C<sub>6</sub>H<sub>6</sub> and EtOH to give ...  
... 105.5°. The m.p. of ...  
... gradually added with mixing and cooling ...  
... NaOEt (0.55 g. Na and 0.5 ml. of abs. alc.), the mixt. ...  
... kept one day then poured into H<sub>2</sub>O, Et<sub>2</sub>O added, ...  
... with HCl, the ether layer removed, ...  
... over Na<sub>2</sub>SO<sub>4</sub> in vacuum-dried. A small amt. of EtOH added ...  
... to the residu., altered, and crystd. from C<sub>6</sub>H<sub>6</sub> yielded 0.20 g. ...  
... a,α'-dinaphthyl ketone ... (II) m. 154°. With Co ...  
... II forms orange complex insol. in H<sub>2</sub>O and readily sol. in org. ...  
... solvents forming yellow colored soln. It has two max. of ...  
... light absorption at 290 and 410 mμ. The II may be used to ...  
... det. Co in the presence of Fe and Ni. To 1-2 ml. of Ni soln. ...  
... (0.100 g. Ni concn) Co was added first a buffer soln. to pH ...  
... 3-5 and then II added in excess, the excess removed with ...  
... CHCl<sub>3</sub>, and the Co detd. colorimetrically at 410 mμ. Accuracy of detn. 0.01% Co. M. Chaudhri

Handwritten initials or signature.

GALLAY, Z.A.; TIPTSOVA, V.G.; PESHKOVA, V.M.

Using ascorbic acid in amperometric titration. Report No. 1:  
Determination of vanadium and cerium in the presence of other  
elements [with summary in English]. Zhur.anal.khim. 12 no.4:  
469-475 J1-Ag '57. (MIRA 10:10)

1. Moskovskiy gosudarstvennyy universitet im. M.V. Lomonosova.  
(Electrochemical analysis) (Vanadium) (Cerium)  
(Ascorbic acid)

PESHKOVA, V.M.; ANTIPOVA-KARATAYEVA, I.I.

Photometric analysis. Zhur. anal. khim. 12 no.5:629-636 S-O '57.  
(Photometry) (MIRA 10:11)



PLATON, V. K., GROMOVA, M. I., IZMAY, I. I., KANALOV, N. A.

"Spectrophotometric Investigation of Complex Compounds of Rare Earth Elements."

Rare Earth Elements (Extraction, Analysis, Use), Published by the Institute of Geochemistry and Analytical Chemistry Imeni V. I. Vernadskiy, 1958, Moscow.

(Chemical Faculty of the Moscow State University Im. M. V. Lomonosov), p.277-283.



PRISHKOVA, V.M.; BOGHKOVA, V.M.

Copper, nickel, and cobalt compounds of dioximes. Nauch. dokl. vys.  
shkoly; khim. i khim. tekh. no.1:62-67 '58. (MIRA 11:6)

1. Rekomendovana kafedroy analiticheskoy khimii Moskovskogo  
gosudarstvennogo universiteta im. M.V. Lomonosova.  
(Oximes) (Organometallic compounds)

**AUTHORS:** Gallay, Z.A., Tiptsova, V.G., and Peshkova, V.M. SOV/55-58-1-28/33

**TITLE:** The Application of the Ascorbic Acid in the Amperometric Titration. Communication 2. Determination of Iodine, Hypochlorites and Iodates (Primeneniye askorbiny, kisloty v amperometricheskom titrovanii. Soobshcheniye 2. Opredeleniye yoda, gipokhloritov i yodatov)

**PERIODICAL:** Vestnik Moskovskogo universiteta, Seriya fiziko-matematicheskikh i yestestvennykh nauk, 1958, Nr 1, pp 209-213 (USSR)

**ABSTRACT:** It was asserted that the ascorbic acid can be applied successfully as a reagent mean in the analytic chemistry, e.g. for the determination of copper and active chlorine in a iodometric manner, or of hypo-chlorites by a direct titration with ascorbic acid. Lead and silver can be shown by titration of the excess of the potassium iodate.  
There are 5 Soviet references.

**ASSOCIATION:** Kafedra analiticheskoy khimii (Chair of Analytic Chemistry)

**SUBMITTED:** September 20, 1956 Zh A Kh  
July 11, 1957 VNU

Card 1/1

5(2)

AUTHORS: Peshkova, V.M., and Kim Heng-rak      SOV/55-58-2-25/35

TITLE: Determination of Titanicum (III) With Sulphosalicylic Acid  
in Presence of Iron and Other Elements (Opredeleniye titana  
(III) sul'fosalitsilovoy kislotoy v prisutstvii zheleza i  
drugikh elementov)

PERIODICAL: Vestnik Moskovskogo Universiteta. Seriya matematiki, mekhaniki,  
astronomii, fiziki, khimii, 1958, Nr 2, pp 187-196 (USSR)

ABSTRACT: The formation of colored combinations of      threevalent  
titanium with sulphosalicylic acid was confirmed, and the  
spectra and the absorption coefficients of the combinations  
were determined. A method for the proof of small quantities  
of titanium in presence of 10000 times larger quantities of  
other metals (Cu, V, Nb, Fe) was developed. The analysis is  
carried out with sulphosalicylic acid and fluid zinc amalgam  
as reducing agent. The authors propose a high-speed pro-  
cessing for the proof of titanium in iron ores and steels  
with a high concentration of chrome nickel.  
There are 7 figures, 4 tables, and 13 references, 8 of which  
are Soviet, and 5 American.

Card 1/2

Determination of Titanicum (III) With Sulpho-  
salicylic Acid in Presence of Iron and Other Elements

SOV/55-58-2-25/35

ASSOCIATION: Kafedra analiticheskoy khimii (Chair of Analytic Chemistry)

SUBMITTED: May 9, 1957

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