

ACCESSION NR: AT4001250

ASSOCIATION: Fizicheskiy institut im. P. N. Lebedeva AN SSSR (Phys-
ics Institute, AN SSSR)

SUBMITTED: 00

DATE ACQ: 30Nov63

ENCL: 00

CODE: PH

NO REF SOV: 049

OTHER: J3C

Can 6/4

SHCHAVTSEKIY, O. I. (Veterinary Surgeon, Stanislavsk Oblast'), KOVALEV, A. A.
(Candidate of Veterinary Sciences, Ukrainian Scientific-Research
Institute of Experiment Veterinary Medicine), NECHVAL', I. T.
(Director of Poltava Oblast' Veterinary Bacteriological Laboratory),
BRATKOVSKIY, E. I. (Main Veterinary Surgeon, Tlumachevsk Raion),
and SHNITSER, V. I. (Main Veterinary Surgeon, Galich Raion).

"Application of "aminoacriquin" for treatment of bulls infested with
Trichomonas".

Veterinariya, Vol. 38, No. 2, 1961, p. 32.

KOVALEV, A.M., kand. veterin. nauk; NECHVAL', I.T.; BEALEKOVICH, Ye.I.;
SHNITSER, S.I.; SHEPAVINSKIY, G.I., veterin. vrach Stanislavskaya
obl.

Treating trichomoniasis in bulls using aminoacrichine. Veterinariia
38 no.2:32-35 F '61. (MIRA 18:1)

1. Ukrainskiy nauchno-issledovatel'skiy institut eksperimental'noy
veterinarii (for Kovalev). 2. Direktor Poltavskoy oblastnoy veteri-
narno-bakteriologicheskoy laboratorii (for Nechval'). 3. Glavnyy
veterinarnyy vrach Tlumachevskogo rayona, Stanislavskaya oblast'
(for Bratkovskiy). 4. Glavnyy veterinarnyy vrach Galichskogo
rayona Stanislavskoy oblasti (for Shnitser).

1. Introduction

The following information is being provided to you for your information only. It is not intended to be used for any other purpose. The information is being provided to you for your information only. It is not intended to be used for any other purpose.

CONFIDENTIAL

SHCHAVINSKIY, V.V., podpolkovnik med.sluzhby

Prevention of epidemic influenza in winter. Voen.-med.zhur.
no.2:63-64 F '60. (MIRA 13:5)
(INFLUENZA)

SECHAVLEV, N., podpolkovnik

Influencing every soldier. Komm Vooruzh. Sil. 46 no. 21:
58-59 N '65 (MIRA 19:1)

KOROVYAKOVSKIY, I.G., inzh.; CHERNUSKIY, A.I., inzh.; BARTMIG, L.P., inzh.;
SHCHAVLINSKIY, V.A., inzh.; BYZHIK, V.M., inzh.

RIND-150 type separators with two reversible columns. Energ. i
elektrotekh. prom. no.3:21-23 JI-S '64.

(MIRA 17:11)

SHCHAVROVSKIY, M.L.; GRYAZNOV, I.S.

Parallactic traversing with a fixed base. Gor. zhur. no. 2:64-66
F '58. (MIRA 11:3)

1. Glavnyy marksheyder kombinata Yuzhuralnikel' (for Shchavrovskiy).
2. Glavnyy marksheyder Kimpersayskogo rudoupravleniya (for Gryaznov).
(Mine surveying)

SHCHAYENKO, V. V.

5

Some optical properties of new zinc sulfide phosphors activated with rare earth elements. ⁷ Z. A. Trapeznikova and V. V. Shchayenko. *Soviet Phys. Doklady* 1, 28-31 (1956) (English translation).—See C.A. 50, 10538i. B. M. R.

2
DM MT

Shchayenko, V.V.

USSR/Physics

Card 1/1

Pub. 22 - 15/54

Authors : Trapeznikova, Z. A., and Shchayenko, V. V.

Title : Some optical properties of new zinc sulphide phosphori activated by rare earth elements

Periodical : Dok. AN SSSR 106/2, 230-232, Jan 11, 1956

Abstract : Experiments with zinc sulphide phosphori are described. The experiments were conducted for the purpose of clarifying the effect of a trivalent rare earth element introduced into zinc sulphide phosphori on the optical properties of the latter. Five references: 1 USSR, 1 USA, 3 Germ. (1950-1953). Diagram; illustrations.

Institution : Acad. of Sc., USSR, Physical Institute imeni P. N. Lebedev

Presented by: Academician G. S. Landberg, June 11, 1955

Shchayenko, V.V.

20945

00116/01/002/001/14/047
3/01/2002

9,4160 (also 1137,1395)

AUTHORS: Levonin, V. L., Varonov, Yu. V., Ratan, V. B., Prizman, S.A. and Shchayenko, V. V.

TITLE: Study of the effect of double activation with silver and samarium on the localization levels and the emission of zinc sulfide phosphors

PERIODICAL: Izvestiya Akademii Nauk SSSR. Seriya fizicheskaya, v. 26, no. 4, 1981, 102-109

TEXT: This paper was presented at the 6th conference on luminescence (crystal phosphors), Kiev, June 29 to 25, 1981. It is the first of a series planned by the authors in which they study the interaction between Ag and Sm activators in ZnS-Ag-Sm phosphor. When producing the specimens Ag and Sm activators were partially added as flux. The quantitative data on luminescence were obtained from specimens to which silver was added. The authors studied phosphors which had been activated only with silver or only with samarium and phosphors containing 10^{-2} to 10^{-4} Ag in which the samarium concentration was varied in the range 10^{-2} to 10^{-4} .

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2085

S/100/10/005/101/014/747
2101/2002

Study of the effect of excitation...

10⁻³ g/cm³. Further more, they studied phosphors which contained 10⁻² g/cm³ silver. Ag gives a band with $\lambda_{max} = 410 \text{ m}\mu$. It gives the bands which have line character and which lie in the green, orange, and red spectral ranges. The most intense group lies at 650 mμ. The type of luminescence centers could not be explained by comparing the line in solution in conditions of the excitation. It is possible that only one type of luminescence centers exists within the respective band of excitation give different bands. Using the formula

$$E = \frac{4kT_2}{\lambda_2 - \lambda_1} \left(\ln \frac{I_1}{I_2} + 2 \ln \frac{\lambda_2}{\lambda_1} \right) \quad (1)$$

suggested by I. A. Perelmanov, where λ_1 and λ_2 the different heating velocities on thermal excitation, T_1 and T_2 the corresponding absolute temperatures of the peak of thermal excitation excited, and E the energy depth of the peak, the authors obtain the following values for the depth of the localization levels of cesarium:

Data 2/7

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B104/B100

Study of the effect of double...

1. $\lambda_1 = 460, 469, 470, 470, 480$
2. $\lambda_2 = 460, 469, 470, 470, 480$

The energy level of silver levels is 0.11 eV. It may be concluded there-
fore that new levels are formed due to the interaction of the activators
and that this interaction reduces the light sum of the former levels. The
increase of the number of activators leads each time to a decrease of the
light sum, accumulated leads to the fact that traces which are produced by
the neighboring activator ions are less efficient than those that are
produced by an individual activator ion. Figs. 2 and 3 graphically
represent the change of spectral composition of phosphor emission as
depending on the ratio and the amount of the activators introduced. The
diagrams of Fig. 4 show the temperature effect on the activator inter-
action. From the results obtained the authors conclude a mutual extinc-
tion in both activators which becomes particularly manifest if the con-
centration of both activators strongly differ. The complex temperature
dependence of extinction indicates the existence of different types of
luminescence centers. In the following discussion V. Ya. Yatsenko speaks
about experiments with CaSO_4 phosphor activated with Mn, Sr, P, Zn, Ni, and

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3/24/61/224/201/014/017
B104/B202

Study of the effect of ionization

Dr. He states that in some experiments attributed with ionization, the kind of both ionization can be observed. Dr. A. Trapernikov is mentioned in the present paper. There are 4 figures and 7 Equations referenced.

ASSOCIATION: Fizmatlab Institut im. P. N. Lebedev Akademii Nauk SSSR
(Physics Institute named P. N. Lebedev of the Academy of Sciences USSR)

Page 4/7

LEVSHIN, V.L.; ARAPOVA, E.Ya.; BLAZHEVICH, A.I.; VORONOV, Yu.V.; VORONOVA, I.G.;
GUTAN, V.B.; LAVROV, A.V.; POPOV, Yu.M.; FRIDMAN, S.A.;
CHIKHACHEVA, V.A.; SHCHAYENKO, V.V.

Cathodoluminescence of zinc sulfide and certain other
cathodoluminophors. Trudy Fiz. inst. 23:64-135 '63. (MIRA 16:10)

L 18748-63 EWP(q)/EWT(m)/BDS AFFTC/ASD JD/JG
ACCESSION NR: AT3002226 S/2941/63/001/000/0230/0239

AUTHORS: Levshin, V. L.; Voronov, Yu. V.; Gutan, V. B.; Fridman, S. A.;
Shohayenko, V. V. 60

TITLE: Radiation composition of luminescence centers in ZnS-Sm phosphors

SOURCE: Optika i spektroskopiya; sbornik statey. v. 1: Lyuminestsentsiya.
Moscow, Izd-vo AN SSSR, 1963, 230-239

TOPIC TAGS: radiation, phosphor, activator, ion, spectra

ABSTRACT: The spectra of Sm^{3+} in ZnS-Sm-phosphor without melt and with 4% $MgCl_2$ melt were analyzed to study the interaction between activator ions and the lattice and obtain information about radiation composition. The Sm concentration was varied between 10^{-7} and 10^{-2} gm/gm, and in addition a variable concentration of silver was added (10^{-6} to 10^{-3} gm/gm). Three types of luminescence centers were obtained, lying in the red, orange, and yellow-green parts of the spectra. These were enhanced by changing the phosphor composition. A temperature test from 20-120C indicated that several radiation bands were formed as a result of electronic and vibrational frequency combinations. Orig. art. has: 7 figures and 4 tables.

Card 1/2

L 58305-65 ENT(m)/ENP(t)/EWP(b) IJP(c) JD/JG
ACCESSION NR: AP5010039 UR/0368/65/002/002/0115/0125

AUTHORS: Levshin, V. L.; Fridman, S. A.; Chikhacheva, V. A.; Shchayenko, V. V. 30 B

TITLE: Rare earth elements as activators of zinc sulfide cathode
luminors 27 27 27

SOURCE: Zhurnal prikladnoy spektroskopii, v. 2, no. 2, 1965,
115-125

TOPIC TAGS: zinc sulfide optical material, cathode luminescence,
rare earth activator, transition frequency, integral luminescence
yield, emission spectrum

ABSTRACT: This is a continuation of earlier studies (Izv. AN SSSR
ser. fiz. v. 25, 392, 1961 and others) of the interaction between
rare-earth activators and the luminescence centers they produce in
luminors based on ZnS and ZnS.CdS. The present study was aimed at
a comparison of the properties of rare earth activators in ZnS lumi-
nors prepared under controlled conditions and suitable for use as

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L 58305-65

ACCESSION NR: AP5010039

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comparison luminors, in order to ascertain the effect exerted on the composition and on the luminescence yield of variations of the synthesis conditions, luminor composition, and variation of its crystal lattice. The rare earth elements used as activators were Ce, Pr, Nd, Sm, Eu, Tb, Dy, Ho, Er, and Tu. The cathode luminescence spectra were measured either photographically or photoelectrically. The phosphors were excited with an electron beam (10^{-6} A/cm² at 20 kV). The luminescent spectra of the phosphors were investigated with an ISP-51 spectrograph. The measurements were made at room temperature. The results are illustrated in Table 1 of the Enclosure, which shows that the individual rare earth elements have greatly varying activation efficiency. A study was also made of the variation of the emission spectra with change in the CdS composition, using ZnS.CdS-Ho as an example. The results conclude earlier conclusions that the transition frequencies in the centers of rare earth elements are independent of the CdS content and of the average lattice constant, at least for crystals of the ZnS type. The CdS content affects only the integral emission of the phosphor. Original article has: 6 figures and 2 tables

Card 2/4

L 58305-65
ACCESSION NR: AP5010039

ASSOCIATION: None

SUBMITTED: 23 Jun 64

ENCL: 01

SUB CODE: OP, SS

NR REF SOV: 015

OTHER: 010

Card 3/4

L 58305-65

ACCESSION NR: AP5010039

ENCLOSURE: 01

Table 1. Relative energy yield of ZnS-TR phosphor luminescence

Element	Atmosphere		Element	Atmosphere	
	H ₂ S	NH ₃		H ₂ S	NH ₃
Ce ⁴⁺	7500	8040	Tb ³⁺	64	—
Pr ³⁺	864	312	Dy ³⁺	600	—
Nd ³⁺	870	1800	Ho ³⁺	22	34
Sm ³⁺	1800	—	Er ³⁺	222	—
Eu ³⁺	444	888	Tm ³⁺	7200	10400

Card *SR* 4/4

L 49289-63 FWP(L)/EWP(M)/EWP(t)/EWP(s) P1-4 IJP(c) JD/JG

ACCESSION NR: AP5009532

S/0048/65/029/003/0500/0502

AUTHOR: Levshin, V.L.; Fridman, S.A.; Chikhacheva, V.A.; Shchayenko, V.V.

28
B

TITLE: Investigation of the cathodoluminescence of rare earth activated zinc sulfide and zinc-cadmium sulfide luminophors / Report, 12th Conference on Luminescence held in L'vov 30 Jan-5 Feb 1964

SOURCE: AN SSSR. Izvestiya. Seriya fizicheskaya, v. 29, no. 3, 1965, 500-502

TOPIC TAGS: cathodoluminescence, zinc compound, sulfur compound, rare earth element, cadmium compound

ABSTRACT: The cathodoluminescence spectra were investigated for ZnS luminophors activated with each of the rare earths except Pm, and for ZnS-CdS mixtures activated with Ho. The luminophors were prepared at 1200° in an H₂S or an NH₃ atmosphere, and contained 0.01 percent activator by weight. The cathodoluminescence was excited by a 10⁻⁶ A/cm² beam of 20 keV electrons. The experimental technique has been described elsewhere (V.L.Levshin, E.Ya.Arapova, A.I.Vlazhevich, et al., Tr.Fiz. In-ta im. P.N.Lebedeva AN SSSR, 23, 83 (1963)). All but three of the rare earth activators resulted in cathodoluminescence in the visible region. The principal emission bands of each of the material are tabulated. The different

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ACCESSION NR: AP5009532

dopants can be used to obtain luminescence in narrow spectral regions in the green, yellow, or red. The decay of the luminescence was found to be complex and rapid. Curves are presented for four of the luminophors; for these the luminescence intensity decayed to 1% of its initial value in from 1 to 10 millisecc. The luminophors prepared in an NH_3 atmosphere exhibited some luminescence lines not present in those prepared in H_2S ; they were also some 20% brighter and had sharper emission band edges than the materials prepared in H_2S . The addition of CdS to ZnS:Ho luminophors altered the relative intensities of the several luminescence bands but did not introduce any new ones. The cathodoluminescence intensity was maximum for 15% CdS, and a second smaller maximum (due principally to emission in the red) occurred at 48% CdS. Orig. art. has: 1 figure and 2 tables.

ASSOCIATION: None

SUBMITTED: 00

ENCL: 00

SUB CODE: OP, SS

NR REF SOV: 002

OTHER: 000

ml
Card 2/2

L 26497-66 EWT(1)/EWT(m)/EWP(t) IJP(c) RM/JD

ACC NR: APG013055

SOURCE CODE: UR/0048/66/030/004/0573/0580

AUTHOR: Arapova, E.Ya.; Levshin, V.L.; Mitrofanova, N.V.; Reshetina, T.S.; Tunitskaya, V.F.; Fridman, S.A.; Shchayenko, V.V.

ORG: Physical Institute im. P.N. Lebedev, Academy of Sciences SSSR (Fizicheskiy institut, Akademiya nauk, SSSR)

TITLE: Luminescence mechanism and the band system of ZnS:Fe luminophors Report, Fourteenth Conference on Luminescence held in Riga, 16-23 September 1965

SOURCE: AN SSSR. Izvestiya. Seriya fizicheskaya, v. 30, no. 4, 1966, 573-580

TOPIC TAGS: crystal phosphor, luminescence, zinc sulfide, thermoluminescence, IR sensor

ABSTRACT: Although iron-activated zinc sulfide phosphors have been known since 1945, the nature of their luminescence mechanism is still obscure. The writers developed a synthesis procedure for ZnS:Fe phosphors in both powdered and sublimate form. The initial ZnS, containing less than 10^{-7} g/g iron, was mixed with the desired amount of Fe (none to 3×10^{-4} g/g) and heated at 1200° C for 90 min in a stream of HCl. Both the powdered and sublimated specimens proved to be sensitive to infrared. ZnS without Fe has one luminescence band peaking at 450 m μ ; doping with Fe gives rise to another band peaking at 630 m μ ; the intensity of this red band increases with the dopant concentration, while the blue band gradually weakens. Figures in the text show the lumin-

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16497-86

ACC NR: AP6013055

escence spectra at different Fe concentrations and the dependences of the intensities of the blue and red bands on the Fe content. Glow curves for the blue and red regions are also shown. Evaluations are made of the trap depth. The glow curve data are consistent with the results obtained in observing IR-stimulated flashes. A band scheme with two levels near the bottom of the conduction band and two levels or groups of levels near the valence band is proposed. Data on the infrared response are presented and discussed. It is suggested that the trapping levels responsible for IR-stimulated light flash may differ from the trapping levels responsible for the thermostimulated peak at 155°, even though both sets of levels are located at about the same depth, (0.06-0.07 eV). Aside from stimulation, infrared also proved to have a quenching effect, particularly in a certain frequency range. The authors are grateful to Z. M. Bruk, V. A. Minayeva and T. F. Filin for assistance in the work. Orig. art. has 9 figures.

SUB CODE: 20/

SUBM DATE: 00/

ORIG REF: 008/

OTH REF: 002

Card 2/2 CC

ACC NR: AP7004983 (A) SOURCE CODE: UR/0048/66/030/009/1494/1499

AUTHOR: Levshin, V.L.; Fridman, S.A.; Chikhacheva, V.A.; Shchayenko, V.V.

ORG: none

TITLE: Investigation of the energy transfer from a ZnS host lattice to a rare earth activator /Report, Fourteenth All-Union Conference on Luminescence (Crystal Phosphors) held at Riga, 16-23 Sept. 1965/

SOURCE: AN SSSR. Izvestiya. Seriya fizicheskaya, v. 30, no.9, 1966, 1494-1499

TOPIC TAGS: luminescence, zinc sulfide, rare earth element, luminescence center, luminescence quenching, luminescence spectrum

ABSTRACT: The authors investigated the luminescence of unactivated, holmium-activated and samarium-activated ZnS phosphors containing high and low concentrations of the blue luminescence centers in order to elucidate the role of the blue centers in the excitation of rare earth activator centers in ZnS phosphors, and in particular, to determine whether the extreme view that the rare earth centers can be excited only through the mediacy of the blue luminescence centers is tenable. Specimens with different concentrations of the blue centers were obtained by heating the specimens for different times in a stream of NH_3 . Holmium and samarium were chosen for the study because it had previously been found that the hole level in excited Sm^{3+} centers

Card 1/2

ACC NR: AP7004984

(A) SOURCE CODE: UR/0048/66/030/009/1500/1503

AUTHOR: Kisil', I.I.; Levshin, V.L.; Sysoyev, L.A.; Fridman, S.A.; Shchayenko, V.V.

ORG: none

TITLE: Preparation of rare earth activated zinc sulfide single crystals Report,
Fourteenth All-Union Conference on Luminescence (Crystal Phosphors) held at Riga,
16-23 Sept. 1965⁷

SOURCE: AN SSSR. Izvestiya. Seriya fizicheskaya, v. 30, no.9, 1966, 1500-1503

TOPIC TAGS: luminescent crystal, ~~single crystal~~, zinc sulfide, thulium, luminescence
center, *SINGLE CRYSTAL GROWING*

ABSTRACT: The authors prepared thulium-activated zinc sulfide single crystals and studied their luminescence. The investigations were undertaken mainly to develop a technique for preparing rare earth activated zinc sulfide single crystal phosphors. Hexagonal zinc sulfide single crystals with lengths of up to 10 cm and diameters of up to 3 cm were grown in a graphite crucible at 1800° in an argon atmosphere at a pressure of 200 atm by the technique described elsewhere by L.A.Sysoyev and N.M. Kraynyukov (Fizika tverdogo tela, 4, 3, 807 (1962)). Crystals grown from a mix containing 0.01% of thulium by weight exhibited thulium luminescence only after heating in a stream of H₂S, which treatment produces zinc vacancies. Heating the crystals in a stream of NH₃, which does not produce zinc vacancies, did not give rise to thulium

Card 1/2

KUCHINSKIY, M.; DORFMAN, F., tekhnolog; SEREBRYANNIKOVA, Kh., kand.khimicheskikh nauk; BER, V., inzh.; SHCHEBANOV, P.; POLYAKOV, V., ratsionalizator (Sverdlovsk)

New developments in factories. Mest.prom.i khud.promys. 1 no.2/3:
36 N-D '60. (MIRA 14:4)

1. Direktor fabriki "Kommunar", Orsha (for Kuchinskiy). 2. Fabrika "Rezinoprom" (for Dorfman). 3. Direktor fabriki "Shchetchnik, Rostov (for Shchebanov).

(Manufacture—Technological innovations)

KATS, B.A., kand.tekhn.nauk; SEMITKINA, V.M.; Primalni uchastiye:
UBAYDULLAYEV, Kh.; VORONINA, L.D.; SHCHEBEL'NIKOVA, G.I.

Dependence of the quality of cottonseed oil on the depth of its extraction
by benzene from the prepressed cottonseed cake. Masl.-zhir. prom. 27
no.6:10-12 Je '61. (MIRA 14:6)

1. Sredneaziatskiy filial Vsesoyuznogo nauchno-issledovatel'skogo
instituta zhirov.

(Cottonseed oil)

MARKMAN, A.L., doktor khimicheskikh nauk; TROS'KO, U.I., inzh.; Primali
uchastiye: KONEVA, Ya.A.; SHCHEBEL'NIKOVA, G.I.

Refining of cottonseed oil in a micelle. Report No.2. Masl.-
zhir.prom. 28 no.3:18-20 Mr '62. (MIRA 15:4)

1. Institut khimii rastitel'nykh veshchestv AN UzSSR.
(Cottonseed oil)

MARKMAN, A.L., doktor khimicheskikh nauk; TRCS'KO, U.I., inzh.;
Prinimali uchastiye KONEVA, Ya.A.; SHCHEBL'NIKOVA, G.I.

Refining cottonseed oil in micelle. Masl. -- zhir. prom. 27
no.12:12-16 D '61. (MIRA 1/12)

1. Institut khimii rastitel'nykh veshchestv SSSR.
(Cottonseed oil)

1. [Illegible text]

[Illegible text]

(MIRA 18:8)

1. [Illegible text]
2. [Illegible text]

SHCHEBEN'KOV, V.G.

First instructions from the Russian Academy of Sciences concerning
the study of Chinese culture. Soob.DVAFAN SSSR, no.13:97-101 '60.

(MIRA 14:3)

1. Dal'nevostochnyy filial im. V.L.Komarova Sibirskogo otdeleniya
AN SSSR.

(Chinese studies (Sinology))

SHCHEBEN'KOV, V.G.

Some data on the study of oriental languages in institutions of
higher and special learning in Russia. Soob.DVFN SSSR no. 15:
121-124 '62. (MIRA 17:9)

1. Dal'nevostochnyy filial imeni Komarova Sibirskogo otdeleniya
AN SSSR.

ISTOMIN, G.A.; SHCHERBERSTOV, V.I.

Study of the possibility of increasing photographic sensitivity
in development without lowering the quality of the image. Zhur.
nauch. i prikl.fot. i kin. 3 no.6:450-451 N-D '58. (MIRA 11:12)

1. Vsesoyuznyy nauchno-issledovatel'skiy kinofotoinstitut.
(Photographic sensitometry)

SHCHEBBERSTOV, V.I.; KIRILLOV, N.I.

In memory of I.A.M. Katushev. Zhur.nauch. i prikl.fot. i kin.
3 no.6:472 N-D '58. (MIRA 11:12)
(Katushev, Iakov Matveevich, 1885-1958)

DOBRY, L.; FIALA, Ya. [Fiala J.]; BRABETS, V. [Brabec, V.]; VIKTORA, L.;
LIVORA, I.; SICHESINSK, V.

Experiment in using various methods of blood preservation at
positive and negative temperatures. Probl. gemat. i perel.
krovi 8 no.5: 32-37 My'63. (MIRA 16:8)

1. Iz Instituta gematologii i perelivaniya krovi (direktor
prof. Ya.Gozheyshi) v Prage.
(BLOOD--COLLECTION AND PRESERVATION)

STARIK, I.Ye.; AMPELOGOVA, N.I.; GINZBURG, F.L.; LAMBEF, M.S.; SKUL'SKIY, I.A.;
SHCHEBETKOVSKIY, V.N.

Molecular state of ultramminute quantities of radioelements in
solutions. Radiokhimiya 1 no.4:370-378 '59. (MIRA 13:1)
(Radioactive substances)

21 (C), 5 (0)
AUTHOR:

Shchebetkovskiy, V. N.

SOV/89-7-2-17/24

TITLE:

All-Union Symposium on Radiochemistry (Vsesoyuznyy simpozium po radiokhimii)

PERIODICAL:

Atomnaya energiya, 1959, Vol 7, Nr 2, pp 175-176 (JSSR)

ABSTRACT:

A symposium was held in Leningrad from 3 to 5 March 1959. More than 200 participants from different institutes in Moscow, Leningrad, Kiyev, Novosibirsk, Tbilisi and Gor'kiy attended it. Twentyeight papers were read. The following are mentioned: I. Ye. Starik: On the problem of the molecular state of micromasses of radioactive elements in solutions; I. Ye. Starik, N. I. Ampelogova, F. L. Ginzburg, L. I. Il'menkova, I. A. Skul'skiy, L. D. Sheydin: Condition of radioactive elements occurring in microconcentrations of solutions (Zr, Am, Pa, Po). M. N. Yakovleva, M. A. Shurshalina: Application of the dialysis method for examination of uranium carriers in natural bodies of water; V. I. Paramonova, Ye. F. Latyshev: Complex formation of the multivalent ruthenium with chlorine ions. K. B. Zaborenko, A. V. Zaval'skaya, V. V. Fomin: Determination of the composition and the instability constants by ion exchange of the cerium oxalate complexes. A. I. Moskvin: Complex formation of plutonium and americium with the anions of

Card 1/5

All-Union Symposium on Radiochemistry

SOV/89-7-2-17/24

ethylene diamine tetra acetic acid (EDTA) and oxalic and phosphoric acid. A. M. Trofimov, L. N. Stepanova: A new method for the determination of ion charges of radioactive elements in solutions by application of ion exchanging resins of different swelling capacities. N. B. Vysokoostrovskaya, A. M. Trofimov, B. N. Nikol'skiy: Confirmation of the non-existence of complex formation between potassium and EDTA by application of the ion exchange and the potentiometric methods. V. M. Vdovenko, Ye. A. Smirnova: Determination of the conditions of compounds to be extracted in the organic phase (hydration of uranyl nitrate with ester). V. M. Vdovenko, N. F. Alekseyeva: Degree of hydration of nitric acid in dibutyl ether of the diethylene glycol. V. M. Vdovenko, A. S. Krivokhatskiy: Degree of solvation of the nitric acid in the dibutyl ether of the diethylene glycol. A. K. Lavrukina: Determination of the dependency of the distribution coefficients between the organic and the watery phases in order to determine the condition of the substance in the solution and to fixate the concentration range at which complex formation starts. V. I. Kuznetsov, P. D. Talov lectured on extraction of hexavalent tungsten with aniline from hydrochloric media. An. N. Nesmeyanov on substitution of hydrogen in benzol by the recoil

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All-Union Symposium on Radiochemistry

307/89-7-2-17/24

atoms P^{32} , As^{76} and Sb^{124} . E. G. Dzantiyev lectured on the recoil atoms from the reactions of $Li^6(n,\alpha)T$, $N^{14}(n,p)C^{14}$ in a medium of cyclic hydrocarbons. P. I. Artyukhin lectured on the influence of the NO_3^- and H^+ ions on the reduction velocity of hexavalent plutonium under the influence of its own α -radiation. In the course of thorough discussions it was established that the comprehension of the condition of radioactive elements in solution are of eminent importance for the whole range of radio chemistry. More studies have to be made in this field as were made before. A better coordination of all the institutes which are occupied with this problem will yield good results in the future.

Card 3/3

26604

S/186/61/003/004/003/007
E037/E11921.4200
AUTHORS:

also 2209

Starik, I.Ye., Skul'skiy, I.A., and Shchebetkovskiy, V.N.

TITLE:

Adsorption of radioactive isotopes on non-ion-exchange polymeric adsorbents. I. Adsorption of zirconium on ftoroplast-4 (polytetrafluoroethylene) from hydrochloric acid solutions

PERIODICAL: Radiokhimiya, 1961, Vol.3, No.4, pp. 428-434

TEXT: So far most studies have been concerned with ion-exchange and colloidal adsorption of radioactive isotopes. To establish the features of molecular adsorption of radioactive isotopes it is most expedient to study a particular element under conditions such that it may form uncharged compounds in solution. In such a case it is possible to consider the molecular adsorption as a distribution of neutral particles of electrolyte between liquid and solid phases, and to compare the results with distribution of the element in extraction processes. Zirconium is particularly suitable for such a study as in aqueous solution it may form neutral complexes of type $[Zr(OH)_x A_{x-4}]^0$ (Ref.5: B.A. Lister, L.H. McDonald, J.Chem.Soc., 4315 (1952), where A is an anion.

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26604

X

Adsorption of radioactive isotopes on ... S/186/61/003/004/003/007
E037/E119

The composition of the complexes depends on the composition of the solution. In this way we may study adsorption as a function of the solution composition and obtain information on the dependence of adsorption on the state of the element in solution in order to deduce the mechanism of molecular adsorption. The present work considers Zr adsorption on polytetrafluoroethylene (PTFE) from hydrochloric acid solutions, Zr desorption from PTFE surfaces with tributyl phosphate (TBP), and the extraction of Zr into TBP. It was necessary to take special measures to ensure that tracer Zr95 and carrier zirconium are in the same state, e.g. as regards hydrolysis. Adsorption was studied on polished PTFE discs 5.5 cm² in area and 1.5 mm thick. Surface treatment with hot concentrated sulphuric acid and water guaranteed rapid and complete desorption of Zr95 while not affecting the adsorption properties. Zr95 activity was measured on torsion counter with Al foil to absorb the Nb95 β-radiation from the Nb formed in the course of the experiment. The dependence of zirconium adsorption from 1.2 N HCl on zirconium concentration may be expressed by a Freundlich equation of form

$$G = 10^{-3} C^{0.91}$$


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Adsorption of radioactive isotopes on... S/186/61/003/004/003/007
E037/E119

where G is the adsorption in g. atom Zr/cm² and C is the zirconium concentration in g. atom/m³. For tracer concentrations $K = G/C$ is independent of C and is a function only of the state of the Zr. With increasing Zr concentration the adsorption approximates to that corresponding to a monolayer, which indicates that adsorption is taking place over the whole surface and not on individual parts. The temperature dependence of the adsorption was studied in 10 N HCl to avoid hydrolytic effects which are also temperature dependent. The value obtained for the heat of adsorption on the hydrophobic PTFE surface is 2.2 ± 0.2 kcal/mole, which is usually characteristic for van der Waals adsorption. The dependence of Zr⁹⁵ adsorption on HCl concentration may be explained by the change in state of the Zr with changing H⁺ and Cl⁻ concentration. Calculations based on published complex formation constants (Ref. 12; A.S. Solovkin, ZhNKh, Vol. 2, 3, 611 (1957)) show that the concentration of neutral zirconium species is very high. It is found that the adsorption increases with the number of hydroxyl groups in the neutral zirconium complex; this is possibly due to the formation of hydrogen bonds between these

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Adsorption of radioactive isotopes on ... 26604
S/186/61/003/004/003/007
E037/E119

groups and fluorine atoms on the PTFE surface. In the strongly acid region the adsorption is practically independent of HCl concentration. Description of the PTFE surface with 100% TBP and comparison of the data obtained with data on the extraction of zirconium into TBP from aqueous solution indicates that in strongly acid solution the Zr is adsorbed as $[ZrCl_4]^0$. The possibility of removing zirconium from the PTFE surface with TBP is good evidence that the element is adsorbed in a molecular state on the surface of hydrophobic polymeric adsorbents.

There are 8 figures, 2 tables and 13 references; 9 Soviet and 4 English. The English language references read as follows:

- Ref.1: J. Ridberg. B. Ridberg. Svensk. Kemisk. Tidskr., Vol.64, 200 (1952).
Ref.5: As quoted in the text above.
Ref.7: A.E. Levitt, H. Freund. J. Am. Chem. Soc., Vol.78, 8, 1545 (1956).
Ref.8: K. Alcock, S.S. Grimley, F.V. Healy, J. Kennedy. Trans. Far. Soc., Vol.52, 1, 39 (1956).

SUBMITTED: June 9, 1960
Card 4/4

26605

S/186/61/003/004/004/007
E037/E119

Zi. 4240

AUTHORS:

Starik, I.Ye.; Shchebetkovskiy, V.N., and Skul'skiy, I.A

TITLE:

Adsorption of radioactive isotopes on non-ion-exchange polymeric adsorbents. II. Adsorption of zirconium on ftoroplast-4 (polytetrafluoroethylene) from acid solutions of alkali-metal salts

PERIODICAL: Radiokhimiya, 1961, Vol.3, No.4, pp. 435-439

TEXT:

Considering molecular adsorption processes as the distribution of uncharged species between aqueous solution and the surface of a hydrophobic non-ion-exchange adsorbent, I.Ye. Starik and I.A. Skul'skiy (Ref.1; Izv. AN SSSR, OKhN, 10: 1278 (1958)) showed that a salting-out effect is observed in molecular adsorption as well as in extraction processes. It is interesting to establish how this effect depends on the nature of the cation of the neutral salt in order to make further comparisons between molecular distribution in liquid-solid and liquid-liquid systems. The present work deals with the adsorption of tracer concentrations of Zr⁹⁵ from 1N nitric, hydrochloric and hydrobromic acids under conditions such that colloidal and hydrolytic forms of zirconium are

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Adsorption of radioactive isotopes

S/186/61/003/004/004/007
E037/E119

absent. Adsorption was studied as a function of concentration of alkali-metal salt. For comparison, data were also obtained on the salting-out action of these cations during Zr extraction with tributyl phosphate (TBP). The methods for studying the adsorption and extraction have been described earlier (Ref. 3; I. Ye. Starik, I. A. Skul'skiy, V. N. Shchebetkovskiy, pp. 428-434 of the present issue). Zr^{95} was γ -counted in solution and not on a torsion counter as evaporation of the solutions gave an absorbing layer of salt. A conversion factor was used to convert the figures into the corresponding α -activities and the adsorption was expressed, as before by a coefficient $K = G/C$, where G is the activity per cm^2 of adsorbent and C is the activity per ml of solution. The values obtained for K_{adsorb} varied from 4.1×10^{-3} for 1N HCl + 3N LiCl to 39.0×10^{-3} for 1N HCl + 2N NH_4Cl . It was found that the adsorption was dependent not only on the total anion concentration but also on the nature of the cation: for the same ionic strength the salting-out effect increases along the series $Li < H < Na < K < NH_4$ (in HCl) and $H < Li < Na < NH_4 < K$ (in HBr and HNO_3). The effect cannot be explained by the alkali-metal cations

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Adsorption of radioactive isotopes

S/186/61/003/004/004/007
E037/1:119

competing with Zr for adsorption on the PTFE but must be connected with a change in state of the zirconium in solution. For extraction of Zr into TBP the salting-out effect for the cations is in the reverse order: $Li > Na > K > NH_4$ (in HCl). In this case the effect is usually attributed to the different thermodynamic activity of water in the salt solutions. For the same ionic strength as the water activity increases, from Li to Cs, the salting-out effect of the cation decreases in extraction. The reverse seems to hold for the molecular adsorption of Zr on PTFE. Total or partial reversal of this series is sometimes observed in extraction processes however, and is usually associated with organic solutions of high dielectric constant. Generally speaking, the adsorption is not contrary to extraction theory and the main points of similarity are: 1) in most cases of adsorption and extraction there is an increase in uptake with increase in concentration of similar anions, and 2) the coefficients of adsorption and extraction depend on the nature of the salting-out electrolyte. The increase in adsorption with increase in anion concentration is evidently connected with the equilibrium;

Card 3/ 4

WALK, A. K. (1961) [unclear], [unclear], [unclear].

Identification of radioactive isotopes on non-ferrous
polymer absorbents. Part 2: Adsorption of [unclear] in
Fluoroplastic-4 from acid solutions of alkali metal salts.
Radiokhimiya 3 no. 5:437-439 '61. (ISSN 17:7)
(Zirconium--Isotopes)
(Adsorption)

2071.0

S/020/51/137/002/013/020
B101/B217

15.8115

2209

AUTHORS: Starik, I. Ye., Corresponding Member AS JSSR, Skul'skiy, I. A., and Shchebetkovskiy, V. N.

TITLE: Spectroscopic study of zirconium chloride solutions in connection with the zirconium adsorption on fluoroplast-4

PERIODICAL: Doklady Akademii nauk SSSR, v. 137, no. 2, 1961, 356-358

TEXT: The authors deal with the problem of the distribution of Zr between solution and nonionogenic surface (fluoroplast-4) under the influence of the nature of the cation and the different degree of hydrolysis of the Zr complexes. In a previous paper it was shown that: 1) the distribution coefficient of Zr^{95} between solution and fluoroplast-4 decreases with increasing concentration of HCl; 2) at equal ionic strength the adsorption of Zr increases in the presence of cations in the order $Li^+ \ll H^+ \ll Na^+ \ll K^+ \ll NH_4^+$ (Fig. 1). The present paper aimed at establishing that this behavior is due to complex formation. For this

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B101/B217

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Spectroscopic study of zirconium...

purpose solutions of spectroscopically pure zirconium oxychloride were studied in various concentrations by means of a CP-4 (SF-4) spectrophotometer in the presence of acids and alkali chlorides, and the optical density D as well as the molar extinction coefficient ϵ , were determined. Fig. 2 shows the absorption spectra of Zr solutions in hydrochloric and perchloric acid. In the presence of HCl, absorption increases rapidly with its concentration. The peak at 220-225 m μ in 8 N and 9 N HCl is explained by the formation of $ZrCl_5^-$ and $ZrCl_6^{2-}$ complexes. The optical density in the 213-250 m μ region may serve as a standard of the intensity of complex formation between Zn and Cl ions. Fig. 3 gives the absorption spectra of zirconium solutions in the presence of HCl, LiCl, NaCl, KCl and NH_4Cl . The right-hand part of the figure gives a portion of the spectra on an enlarged scale. The distinct dependence of the optical density on the type of neutral salt added is pointed out. In the presence of Na^+ , K^+ , and NH_4^+ , the optical density is low and complex formation therefore slight, and, as is shown in Fig. 1, adsorption on fluoroplast... is considerable.

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B101/B217

Spectroscopic study of zirconium...

This is explained by the fact that in NaCl, KCl and NH₄Cl solutions Zr complexes are formed mainly by chlorine atoms being bound to free valences and the OH groups of the complex $[Zr(OH)_x Cl_{4-x}]$ are not displaced. In this case the adsorption of Zr is caused by a salting effect. In the presence of HCl or LiCl however, the hydrolysis and thus also the adsorbability of the complexes is reduced. There are 3 figures and 1 table.

ASSOCIATION: Radiyevyy institut im. V. G. Khlopina Akademii nauk SSSR
(Radium Institute imeni V. G. Khlopin, Academy of Sciences USSR)

SUBMITTED: December 19, 1960

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STARIK, I.Ye.; SHCHEBETKOVSKIY, V.N.; SKUL'SKIY, I.A.

Adsorption of radioactive isotopes on non-ion exchanging
polymer adsorbents. Part 3: Adsorption of cesium,
thallium, silver, and strontium on fluoroplast 4
and polyethylene. Radiokhimiya 4 no.4:393-398

'62.

(MIRA 15:11)

(Radioisotopes)

(Adsorption)

(Polymers)

L 35053-65 EWT(1)/EPF(c)/EPF(n)-2/EPF/EWG(m)/T/EPA(bb)-2/EPA(1) Pr-4/Ps-4/Pu-4

ACCESSION NR: AP5002228 ^{WW} S/0114/64/000/012/0039/0042 30
8

AUTHOR: Shcheblanov, B. G. (Engineer)

TITLE: Thermal condition of an internal-combustion engine having heat exchange
with a boiling liquid 21

SOURCE: ¹⁰⁻ Energomashinostroyeniye, no. 12, 1964, 39-42

TOPIC TAGS: internal combustion engine, boiling

ABSTRACT: The operation of a 1Ch10,5/13, 10-hp, 1500-rpm diesel engine with cyclone-chamber fuel mixing was investigated with both hot-water-type and boiling-water-type cooling; with the hot-water system, the water circulated under a pressure of 2.6 atm at 120C. With the hot-water cooling, the cylinder-wall / cooling-water temperature relation was found to be linear, the wall temperature increasing by 9-10C for each 10C increase in the cooling-water temperature. An increase in the coefficient of wall-to-water heat transfer from 2800 to 3900 kcal /

Card 1/2

L 35053-65

ACCESSION NR: AP5002228

m^a-hr-deg was responsible for lowering the wall temperature by 15-16C. The cylinder-cover temperature was lower with the boiling-type cooling by 22-23C. These conclusions are offered: (1) With the boiling-type cooling, possibilities are open for higher supercharging and rpm forcing of the engine; (2) The associated higher steam pressure and temperature do not cause engine over-heating and do not impair the functioning of the lubricating system in the engines where the cooling-water heat is utilized; (3) Thermal stresses along the cylinder wall and radially in the cylinder cover are lower with the boiling-type cooling system. Orig. art. has: 4 figures and 1 table.

ASSOCIATION: none

SUBMITTED: 00

ENCL: 00

SUB CODE: PR

NO REF SOV: 007

OTHER: 000

Card 2/2

E. 60162-65 EWT(m)/EWP(f)/T-2 OS

ACCESSION NR: AT5017698

UR/0000 65/000/000/0056/0063

AUTHOR: Shcheblanov, B. G. 4413
B-1

TITLE: High temperature internal combustion engine water cooling systems

SOURCE: Dvigateli vnutrennego sgoraniya (Internal combustion engines); sbornik rabot. Moscow, Izd-vo Mashinostroyeniye, 1965, 56-63

TOPIC TAGS: internal combustion engine, cooling system/ SNE 220 05 electric heater

ABSTRACT: To determine experimentally the behavior of the wall temperature in water cooling systems as a function of water temperature with and without steam generation at the surface, a cast iron (SCh24-44) tank (120 x 180 x 105 mm, 15-mm walls) was instrumented and provided with a cooling system. The latter could regulate water temperature between 60-140C (with and without boiling) by air pressurization (see Fig. 1 on the Enclosure). The temperature of the wall, which could be heated by electric heater SNE-220-05, was measured with thermocouples imbedded 3 mm from the fluid surface. The water inlet and outlet temperatures were also monitored. Tests were performed over three regimes: cooling without steam formation (I); cooling with boiling (II); cooling with boiling but without circulating pump (III). (I) Water temperature was varied between 60-125C (at 2.5 atm). It was found that the wall temperature increased linearly with water temperature (9C per 10C increase in H₂O

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Cord 1/3

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ACCESSION NR: AT5017698

temperature). The same slope was observed for water circulating velocities 0.0264-0.098 m/sec, but the wall temperature dropped 11C over this range of flow rates.

(II) In the temperature region of 60-92C the behavior was the same as in (I), but when surface boiling began (wall temperature > 100C), the wall temperature started decreasing, reaching a drop of 12-13C when boiling bubbles had formed. The circulating speed of the water was found to affect the heat transfer coefficient.

(III) In the pre-boiling region the behavior was highly transient, but wall temperature increase was approximately linear (same slope as before) with water temperature. When boiling started (wall 115-120C), the wall temperature slowly dropped by 14-15C until the water temperature reached 100C (wall \approx 115C), and then started rising at the same slope as I and II. Boiling water cooling systems thus appear to be desirable. Orig. art. has: 2 figures and 2 formulas.

ASSOCIATION: none

SUBMITTED: 00

ENCL: 01

SUB CODE: PR

NO REF SOV: 006

OTHER: 001

Card 2/3

Z 60162-65

ACCESSION NO: AF5017698

ENCLOSURE: 01

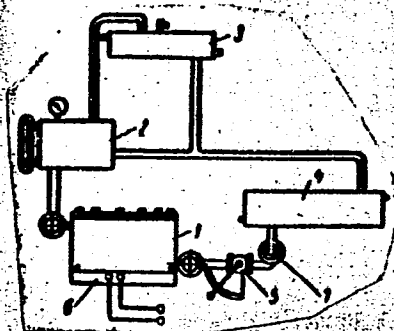


Fig. 1. Experimental apparatus: 1- boiling tank; 2- steam separator; 3- condenser; 4- cooler; 5- valve; 6- heater; 7- pump

Card 3/3

KALINIKOV, A., rabochiy-obrubsichik (Stalingrad); KURBANALYEV, S. (Baku);
NAVLYUTOVA, R.; SHCHEBLANOV, K.; LAMLIKOV, F.; TASHKOVA, R.;
CHICHIKINA, N.; LYKHNEV, V.; MOSEVICH, A. (Krasnoyarskiy
Kray); SUKHORUKOV, Ya.; GAYDRIK, P. (g.Gor'kiy); KALITNIKOV, A.
(Kostroma).

Letters to the editors. Sov. profsoiuzy 17 no. 3:42-47 F '61.
(NIRA 14:2)

1. Direktor sredney shkoly No. 17, Chelyabinsk (for Navlyutova).
2. Predsedatel' Belgorodskogo obkoma profsoyuzov rabochikh pishchevoy promyshlennosti (for Shcheblanov).
3. Predsedatel' prezidiuma postoyanno deystvuyushchego proizvodstvennogo soveshchaniya tselia kholodnoy shtampovki zavoda "Nostsel'mash" (for Surenkov).
4. Sekretar' Otyayakonskogo raykoma profsoyuzov rabochikh.
(Trade unions)

SHCHEBLANOV, N.A.

Belgorod's experience in increasing the capacity of sugar
factories. Sakh. prom. 33 no.4:13-16 Ap '59. (MIRA 12:6)

1. Belgorodskiy obkom profsoyuza rabochikh pishchevoy promyshlennosti.
(Belgorod Province--Sugar industry)

BELOV, V.P.; BORODICH, M.K., nauchnyy sotrudnik; SHCHEBLANOV, N.M.,
nauchnyy sotrudnik

Design of a sleeve anchor. Bet. i zhel.-bet. 8 no.6:277-278
Je '62. (MIRA 15:7)

1. Nachal'nik Upravleniya stroitel'stva Krasnodarskogo
sovnarkhoza (for Belov). 2. Krasnodarskiy filial Nauchno-
issledovatel'skogo instituta po stroitel'stvu Ministerstva
stroitel'stva RSFSR (for Borodich, Shcheblanov).
(Concrete reinforcement)

SHCHEBLANOV, V.

Stocking steppe forest shelterbelts with ants. Nauka i zhizn' 29
no.7:43 J1 '62. (MIRA 16:6)

1. Oblastnoye otdeleniye Vserossiyskogo obshchestva okhrany
prirody, Volgograd.
(Volgograd Province--Forest insects--Biological control)
(Volgograd Province--Ants)

САХАЕВОВА В. Ф.
~~Шахматов, Я. А.~~

105

PHASE I BOOK EXPLOITATION

SOV/6181

Ural'skoye soveshchaniye po spektroskopii. 3d, Sverdlovsk, 1960.
Materialy (Materials of the Third Ural Conference on Spectros-
copy) Sverdlovsk, Metallurgizdat, 1962. 197 p. Errata slip
inserted. 3000 copies printed.

Sponsoring Agencies: Institut fiziki metallov Akademii nauk SSSR.
Komissiya po spektroskopii; and Ural'skiy dom tekhniki VSNTO.

Eds. (Title page): G. P. Skornyakov, A. B. Shayevich, and S. G.
Bogomolov; Ed.: Gennadiy Pavlovich Skornyakov; Ed. of Publish-
ing House: M. L. Kryzhova; Tech. Ed.: N. T. Mal'kova.

PURPOSE: The book, a collection of articles, is intended for staff
members of spectral analysis laboratories in industry and scien-
tific research organizations, as well as for students of related
disciplines and for technologists utilizing analytical results.

COVERAGE: The collection presents theoretical and practical prob-
lems of the application of atomic and molecular spectral analy-
sis in controlling the chemical composition of various materials
in ferrous and nonferrous metallurgy, geology, chemical indus-
try, and medicine. The authors express their thanks to G. V.
Chentsova for help in preparing the materials for the press.
References follow the individual articles.

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4

Materials of the Third Ural Conference (Cont.)	SOV/6181
Shchebleva, V. P. Spectral analysis of manganese ore, titanium concentrate, and weld deposits	125
Narbutovskikh, T. S., D. Ye. Katkova, and A. P. Zelenkina. Spectral determination of cadmium in the products of hydrometallurgical reprocessing of sublimates from copper smelters	126
Prokhorov, V. G. Arbitrary standard method	127
Kolenko, L. I., and P. V. Pokrovskiy. Determination of small amounts of beryllium in granitoids	129
Trayanova, M. V. Quantitative spectrographic determination of lead in zircons and monazites	131
Zotin, M. A., and A. M. Shavrin. Spectral-analytical determination of nickel in ores by the dilution method	133

Card 10/15

KURDYUMOVA, V.P.; SHCHEBLYKIN, I.K.; BALAYN, R.A., red.; TIL'MAN, A.,
tokhn.rod.

[Technical education in the schools of Baku] Iz opyta poli-
tehnicheskogo obucheniia v shkolakh Baku. Baku, Ob-vo po
rasprostraneniui pol. i nauchn.znani, 1958. 37 p. (MIRA 13:1)

1.Chleny Obshchestva po rasprostraneniyu politicheskikh i nauchnykh
znaniy, Azerbaydzhanskaya SSR (for Kurdyumova, Shcheblykin).
(Baku--Technical education)

SHEHEBLYKIN, I. S.

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17
Raw-material base for development of porcelain industry
in Central Kazakhstan. V. G. Sagunov and I. S. Sheheby-
kin. *Vestnik Akad. Nauk Kazakh. S.S.R.* 12, No. 11,
8-16 (1956) (in Russian).—A brief summary of locations
and analyses of clays suitable for production of porcelain
lab. equipment from material resources of Central Kazakh-
—stan.
G. M. Kosolapoff

Handwritten scribbles and a checkmark.

10M

AM MK

YAROVENKO, V.L.; NAKHMANOVICH, B.M.; SHCHEBLYKINA, H.A.; SHCHEBLYKIN, N.P.

Analysis of the battery method of fermenting in the manufacture of
butyl alcohol and acetone. Spirt. prom. 24 no.5:5-11 '58.
(Butyl alcohol) (Acetone) (MIRA 11:9)

SHCHEBLYKIN, N. P.

Cleaning of distilling wash pipes. Spirt.prom. 26 no.3:40-41
'60. (MIRA 13:10)
(Distilling industries--Equipment and supplies)

YAROVENKO, V.L.; NAKHMANOVICH, B.M.; SHCHEBLYKIN, N.P.; SENKEVICH, V.V.

Study of continuous acetone-butyl fermentation caused by
Clostridium acetobutylicum. Mikrobiologiya 29 no. 4:581-586
Jl-Ag '60. (MIRA 13:10)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut spirtovoy
promyshlennosti.
(CLOSTRIDIUM ACETOBUTYLICUM)

YAROVENKO, V.L.; NAKHMANOVICH, B.M.; SENKEVICH, V.V.; SHCHEBLYKIN, N.P.

Continuous acetone-butyl fermentation with an extended battery
charging cycle. Izv.vys.ucheb.zav.; pishch.tekh. 2:98-104 '62.
(MIRA 15:5)

1. Tsentral'nyy nauchno-issledovatel'skiy institut spirtovoy i
likerovodochnoy promyshlennosti.

(Fermentation) (Acetone) (Butyl)

SHCHEBLYKIN, N.P.; NAKHMANOVICH, B.M.

Complete utilization of raw materials in the Dokshukino Acetone
Plant. Spirt. prom. 29 no. 2:27-31 '63. (MIRA 16:12)

1. Dokshukinakiy atsetonovyy zavod.

SHCHEBLYKIN, V.M.

Turkey farming in our district. Ptitsevodstvo 9 no.5:10-11
My '59. (MIRA 12:7)

1. Direktor Krymskoy inkubatorno-ptitsevodcheskoy stantsii Krasnodar-
skogo kraya.
(Krymskaya District--Turkeys)

NAKHMANOVICH, B. (Riga); SHCHEBLYKINA, N. (Riga); KALNINA, V. (Riga); PELSIS, D. (Riga)
Acetone-butyl fermentation of cornstalk hydrolyzates obtained by
the Riga method. In Russian. Vestis Latv ak no.3:135-140 '60.
(EEAI 10:7)

1. Akademiya nauk Latvyskoy SSR, Institut lesokhozyaystvennykh
problem i khimii drevesiny.
(Acetone) (Butyl alcohol) (Fermentation) (Corn(Maize))

NAKHMANOVICH, B. (Riga); SHCHEBLYKINA, N. (Riga)

Study of hydrolyzates of agricultural plant refuse in acetone-butanol fermentation. In Russian. Vestis Latv ak no.5:125-128 '60. (EEAI 10:7)

1. Akademiya nauk Latvyskoy SSR, Institut lesokhozyaystvennykh problem i khimii drevesiny. (Fermentation) (Plants) (Acetone) (Butyl alcohol)

ZALENSKIY, V.S.; SHCHEBLYKIN, Ye.P.

Foreign tractor-mounted low-power rippers. Strof. 1
dor.mash. 10 no.12:11-13 D '65.

(MIRA 19:1)

YAROVENKO, V.L.; NAKHMANOVICH, B.M.; SHCHEBLYKINA, N.A.; SHCHEBLYKIN, N.P.

Analysis of the battery method of fermenting in the manufacture of
butyl alcohol and acetone. Spirt. prom. 24 no.5:5-11 '58.
(Butyl alcohol) (Acetone) (MIRA 11:9)

NAKHMANOVICH, B.M.; SHCHEBLYKINA, N.A.

Fermentation of pentoses from corncob hydrolysates by *Clostridium acetobutylicum* [with summary in English]. *Mikrobiologiya* 28 no.1: 99-104 Ja-F '59. (MIRA 12:3)

1. Dokshukinskiy atsetonovyy zavod, Nauchno-issledovatel'skaya laboratoriya.
(*CLOSTRIDIUM ACETOBUTYLICUM*) (PENTOSE)

NAKHMANOVICH, B.M.; SHCHEBLYKINA, N.A.

Use of raw vegetable wastes in the production of solvents.
Spart.prom. 26 no.1:31-33 '60. (MIRA 13:6)
(Vegetables) (Dokshukino--Solvents)

NAKHMANOVICH, B.M.; SHCHEBLYKINA, N.A.

Fermentation of calcium salts of acetic and butyric acids by
Clostridium acetobutylicum. Mikrobiologiya 29 no.1:67-72
Ja-F: '60. (MIRA 13:5)

1. Dokshukinskiy zavod, Nauchno-issledovatel'skaya laboratoriya.
(CLOSTRIDIUM metab.)
(ACETATES metab.)
(BUTYRATES metab.)

1979
2025 RELEASE UNDER E.O. 14176

AUTHORS: B. P. Gerasimov, N. M., Shchegolev, N. A.

TITLE: The Chemical Composition of the Corn Cobs of Several Species of Corn, in Particular, Containing Raw Material

PERIODICAL: Zhurnal Prikladnoy Khimii, 1979, Vol. 52, No. 6, p. 1171-1173 (USSR)

ABSTRACT: In the present work the chemical composition of 11 different species of corn cobs, cultivated under the same soil and climatic conditions, was studied. Corn cobs containing a great amount of hydrolyzed polysaccharide are valuable industrial raw materials. There are 2 tables; and 6 Soviet references.

ASSOCIATION: Scientific-Research Laboratory of Dokshukinsk Acetone Plant (Nauchno-Issledovatel'skaya Laboratoriya Dokshtshukinskogo etanolovogo zavoda)

SUBMITTED: July 25, 1979

Table 1/3

Table 1. Analysis of several samples of dry corn.
(continued) Table of Contents
Page No. of Table
Sample No.

Table
1/1/1974

Table 1. Analysis of several samples of dry corn.
(a) type of corn; (b) moisture; (c) easily hydrolyzable
material (based on glucose); (d) difficultly hydrolyzable (based
on glucose); (e) total (easily and difficultly
hydrolyzed); (f) pentosamer; (g) pentosamer (based
on pentose); (h) cellulose; (i) total nitrogen
content; (j) ash content; (k) uronic acids; (l)
difference between pentoses and easily hydrolyzable
material; (m) amount of ash (in % based on corn
seed); (n) Local white seed corn; (o) Chuvashine
white "shorlinaya"; (p) VIR-5; (q) Kuznetsk 1/50;
(r) Chuvashine 5/50; (s) Chuvashine 7/50; (t)
Chuvashine 8/50; (v) K₂ZhP₂; (w) Dneprovsk 1; (x)
Dneprovsk 3/50; (y) Dneprovsk 50; (z) Hapokh;
(aa) Collective; (bb) Sterilin-Dneprovsk.

Card 1/1

1. SPOREBLYKINA, V.II.
2. USSR (650)
4. Grapes - Diseases and Pests
7. Bacterial method for controlling oidium, Vin. dokl 13 no. 4, 1953.

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

SHCHEBENEV, B.

Servicing section in a home. Sov. torg. 35 no.3:46-47 Mr '62.
(MIRA 15:3)

1. Direktor Rybinskogo gorpishchetorga.
(Rybinsk--Grocery trade)

GOLOVANOV, B.G., inzhener; SHCHEBOLEV, G.D., inzhener.

Mobile crusher-grader machine. Zhel. dor. transp. 38 no.11:
70-71 N '56. (MLRA 9:12)

(Crushing machinery)
(Ballast)

SHCHERBOLIN, Inzhener.

Ballast plant on wheels. Put' i put. khoz. no. 7:7 J1 '57.
(Ballast (Railroads)) (MLRA 10:8)

SHTEYNLOK, Natan Isaakovich; SHCHEBOLEV, V.T., inzh., retsenzent;
REBO, Ya.Yu., kand.tekhn.nauk, red.; DUBUSOVA, G.A., red.
izd-va; KONTOROVICH, A.I., tekhn.red.

[Using radioactive radiation in measuring equipment] Primenenie
radioaktivnykh izluchenii v izmeritel'noi tekhnike. Moskva, Gos.
nauchno-tekhn.izd-vo mashinostroit.lit-ry, 1960. 287 p.
(MIRA 13:7)

(Measuring instruments) (Radiology, Industrial)

I 1-681-66 EWT(m)/EPF(n)-2/EWA(h) DM
ACC NR: AP6008257 SOURCE CODE: UR/0089/65/019/002/0181/0183

AUTHOR: Andreyev, O. L.; Silin, Yu. S.; Stukov, G. M.; Fominykh, V. I.;
Shchebolev, V. T.; Yaritsyna, I. A.

72
B

ORG: none

TITLE: International comparison of neutron sources 19:14,55

SOURCE: Atomnaya energiya, v. 19, no. 2, 1965, 181-183

TOPIC TAGS: neutron distribution, radioactive source, neutron, radium, beryllium, radiation counter

ABSTRACT: The relative measurements of the Canadian Ra-~~226~~-Be neutron source were carried out considering the neutron distribution in open geometry and using a long counter which could turn the source at any required angle. With the source axis of rotation coinciding with the cylinder axis, the asymmetry was 1% and with the source axis turned to the side of the surface it was 1.5%. The relative measurements for the source indicated 3.25 neutrons/sec. Orig. art. has: 2 figures and 1 table. [NA]

SUB CODE: 20, 18 / SUBM DATE: 13Oct64 / ORIG REF: 003 / OTH REF: 005

Card 1/1 AC

UDC: 539.16.08: 539.125.5
2

ANDREYEV, G.I.; ILLIN, Yu.S.; STUKOV, G.M.; FOMINYKH, V.I.; SHCHERBOLEV,
I.I.; YARITSYNA, I.A.

International comparisons of neutron sources. Atom. energ.
19 no.2:181-182 Ag '65. (MIRA 18:9)

Method of M. J. ...

Method of small solid angle alpha-particle flux
and the determination of relative stopping powers of mica and
certain gases. (Am. J. Phys. 33:50-55, 1965. (MIRA 14:8)

L 19372-63 EWT(m)/BDS AFFTC/ASD S/0058/63/000/008/V027/V027
ACCESSION NR: AR3006960

SOURCE: RZh. Fizika, Abs. 8V184

AUTHOR: Shchebolev, V. T.

TITLE: Concerning the method of co-moving particles

CITED SOURCE: Tr. in-tov Kom-ta standartov, mer i izmerit. priborov
pri Sov. Min. SSSR, vy*p. 69(129), 1962, 86-94

TOPIC TAGS: co-moving particle , neutron flux determination

TRANSLATION: In connection with the complications arising in direct
measurements of the neutron flux from various sources, the author
points out the importance of developing a standard method, in which
the neutron flux would be determined by measuring the flux of charged
particles moving together with the neutrons. The possibilities of
using the $T(d, n)He^4$ reaction to produce an absolute method of neu-

Card 1/2

SACREBOLEV, V.T.

Use of the method of concomitant particles in measuring the yield of neutron sources and neutron fluxes. Nov nauch.-issl. rab. po metr. VNIIM no.2:52-55 '64.

Design, implementation, and investigation of a neutron source with an energy of ~14 Mev. Ibid.:55-58

Study of the mode of operation of an accelerator for accomplishing the reaction $T(d,n)He^4$ and measuring the neutron yield. Ibid.:59-62 (MIRA 18:4)

KARAMYAN, A.S. [deceased]; KUZHEYEV, B.I.; KRESS, R.P.; SILIN, Yu.S.;
STUKOV, G.M.; SHCHEBOLEV, V.T.; YARITSYNA, I.A.

Use of the method of associated particles in determining the absolute
of neutrons emitted by the source. Atom energ. 16 no.3:252-253 Mr
'64. (MIRA 17:3)

SHCHEBRAN, A. N.

29. HEAT EMISSION FROM OXIDATION OF COAL AND TIMBER IN DONBASS MINES. Shchebran, A. N. (Ugol (Coal), Sept. 1950, 24-26).

As a guide for mine ventilation schemes, temperature rise from this factor was measured in air passing through workings where other factors were negligible. Average emission in kilocalories per square metre of surface per hour was: in preparatory workings with timber linings, 6-7; in operating workings, 13-15; and in main roads with stone linings, 3-4 (estimated). (L).

118.514 METALLURGICAL LITERATURE CLASSIFICATION

Small Bore, H.P.

2397. AIR CONDITIONING IN COKEASS MINES. Shecherev, A.N. (Ugol (Coal), Dec. 1953, 10, 11). The ventilation roadway scheme of Amkyun (Ugol, May 1953, 25-28) is criticized. It would not provide sufficient cool air at faces 1000 m or more deep and 1500 m from the shaft, and the aerodynamic resistance of the airways would be too high. (L). N.C.B.

ACC NR: AT6034489

SOURCE CODE: UR/3186/66/000/133/0074/0081

AUTHOR: Piguzova, V. M.; Shchebreneva, N. A.

ORG: none

TITLE: Technique of studying the subsurface feeding of rivers in regions of widespread permafrost

SOURCE: Leningrad. Gosudarstvennyy gidrologicheskiy institut. Trudy, no. 133, 1966. Issledovaniya podzemnogo stoka v reki (Studies of subsurface flow into rivers), 74-81

TOPIC TAGS: hydrology, permafrost, ^{under}ground water, subsurface drainage, ~~river flow~~ surface water

ABSTRACT: Schemes are presented for the analysis of river-discharge hydrographs obtained for four seasons of the year at stations on several rivers in the permafrost areas of the Soviet Far East and Siberia. A review is given of the research results obtained by Soviet investigators studying the conditions which control the rate of interchange between surface and ground water. This interchange was found to be most extensive, not in areas where the permafrost is thinnest, but in areas which have been or are being subjected to structural deformations which pro-

Card 1/2

She... ..

AUTHORS Tatchenko, L.K., Lyndin, V.V., 32-8-34/61
Tokmakov, V.S., Moysh, Yu.V.,
Sabinin, P.G., Shchebrov, M.N.

TITLE An Automatic Magnetic Defectoscope for Controlling
Bar Materials.
(Avtomatizirovanny magnitnyy defektoskop dlya
kontrolya prutkovykh materialov.)

PERIODICAL Zavodskaya Laboratoriya, 1957, Vol. 23, Nr 8,
pp. 967-969 (USSR)

ABSTRACT For controlling bar-like and cylindrical objects of
production, where the defects are mostly to be sought
in the direction of the axis, magnetization by a
magnetic circulation field is used which is effected
by the passage of current along the bar to be in-
vestigated. The amperage is chosen according to the
cross section of the bar to be investigated, namely
according to the formula: $I = (10 \pm 20) d$, where I
signifies the amperage and d the cross section of
the object. The so-called defectoscope was constructed
on the basis which is described here. This apparatus,
however, only permits to make random tests. An automatic

CARD 1/2

32-8-34/61
APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R001548730007-6

control was experimentally worked out by the Ural
branch of the Academy of Sciences of the USSR for the Plant
imeni Serov. In this construction the object (bar) was
immersed into a tub with magnetic suspension and at
the same time current was sent through it. The method
proved to be somewhat more practical, but the secondary
functions made the control cumbersome. The paper further
describes a new device which permits further
automatization of the above-mentioned functions. On
the slant plane the rolling bars are one by one
automatically clamped, then they are in a circular
movement immersed to the tub (as above with the passage
of current) and finally they are let out of the clamps
on the other side of the slant plane where they again
begin rolling. This automatic operation takes 7 seconds
per bar. Such an apparatus is already used in the
Elektrostal' Works.

(3 illustrations, 3 references)

ASSOCIATION: Central Scientific Research Institute for Ferrous Metallurgy.
(Tsentralnyy nauchno-issledovatel'skiy institut chernoy
metallurgii)

AVAILABLE: Library of Congress.

CARD 2/2

SHCHEBROV, S.F., tekhn.; KRYLOVETSKIY, A.S., inzh.

Welded cylinder for a 250-ton hydraulic press. Svar. proizvod.
no.6:41 Je '63. (MIRA 16:12)

1. Kulebaskiy metallurgicheskiy zavod im. S.M.Kirova.

SHCHERBUNYAYEV, G.

Activity and indifference. NTO no.3:45-46 Mr '59.

(MIRA 12:6)

1. Starshiv instruktor Tsentral'nogo komiteta profsoyuza rabotnikov stroitel'stva i promyshlennosti stroitel'nykh materialov.
(Construction industry)

SHCHEBUNYAYEV, G., instruktor

Community is a great force. NTO 3 no.12:33-34 D '61.
(MIRA 15:1)

1. Tsentral'nyy komitet profsoyuza rabochikh stroitel'tva
i promyshlennosti stroymaterialov.
(Mazeiki--Cement industries)

СЕНТРАЛЬНЫЙ, Г.

Resources of the Chernorechenskii Cement Plant workers. BTO
no.7:28-29 Jy '59. (MIRA 12:11)

1. Starshiy instruktor Tsentral'nogo komiteta profsoyuza
rabochikh stroitel'stva i promstroymaterialov.
(Cement industries)

SHCHEBUNYAYEV, G., instruktor

Double glass output with the same furnaces. NTO 3 no.8:47-48
Ag '61. (MIRA 14:9)

1. Tsentral'nyy komitet profsoyuza rabotnikov stroitel'stva i
promyshlennosti stroymaterialov.
(Kherson--Glass furnaces)