SHUBINA, N.K.

Materials on the problem of the pathogenesis of obsessive conditions. Probl.sud.psikh. 8:443-450 '59.
(MIRA 13:6)

(Obsessions)

SHUBINA, N.K.

Some data on the dynamics of psychopathies based on materials of prolonged catamnesis. Probl. obshchei i sud. psikh. no.14: 102-116 '63. (MIRA 18:9)

SHUBINA, N.V.

Organization of large-scale mapping operations for agricultural purposes. Vest. Mosk. un. Ser. biol., pochv., geol., geog. 14 no.3:199-203 '59. (MIRA 13:6)

1. Kafedra kartografii Moskovskogo universiteta.
(Agriculture--Maps) (Photographic interpretation)

SHUBINA, N.V.

Working out a general cartographic foundation corresponding to the economic needs in the use of maps. Vest.Mosk.un.Ser.viol., pochv., geol., geog. 14 no.4:225-229 '59. (MIRA 13:6)

1. Kafedra geodezii i kartografii.
(Agriculture--Maps)

SHUBINA, N.V., aspirant

Representation of agricultural land use on topographic maps. Izv. vys.ucheb.zav.; geod.i aerof. no.6:97-106 '61. (MIRA 15:3)

1. Moskovskiy gosudarstvennyy universitet.
(Topographic maps)

S/035/62/000/011/062/079
A001/A101

AUTHOR: Shubina, N. V.

TITLE: Possibilities of improving the contents of topographic maps for water-economy purposes

PERIODICAL: Referativnyy zhurnal, Astronomiya i Geodeziya, no. 11, 1962, 21, abstract 11G157 ("Vestn. Mosk. un-ta. Geografiya", 1962, no. 3, 43 - 47)

TEXT: In order to use topographic maps, 1 : 10,000 and 1 : 25,000 scales, in water-economy purposes, the author proposes to complement their contents with special hydrographic data. In particular, it is expedient to provide topographic maps with a fuller characteristic of water conditions of rivers and lakes, to subdivide channels according to their destination (irrigation, water-collecting and overflow, drainage), to single out irrigated lands (irrigated by gravity flow and mechanically, as well as estuary irrigated), and to denote the level of ground waters and their discharge. Moreover, special objects (water trough sites, pumping stations, water towers, hydrometric stations, hydrotechnical tunnels, etc.) should be designated on the maps.

P. Kuznetsov

[Abstracter's note: Complete translation]

Card 1/1

Chair Geodesy & Cartography, Moscow Univ

[redacted], V. V.

[redacted], V. V. - "Changes in the ciliary body after diathermocoagulation." Moscow, 1955. [redacted] Order of Lenin Medical Inst. (Dissertation for degree of Candidate of Medical Sciences.)

SO: Knizhnaya Letopis', No 47, 26 November 1955, Moscow.

SHUBINA, N.V.

Work practice of the Cooperation Council organized at the hospital.
Zdrav.Ros.Feder. 1 no.5:26-27 My '57. (MIRA 10:11)

1. Glavnyy vrach Astrakhanskoy Basseynovoy klinicheskoy bol'nitsy imeni Z.P.Solov'yeva Nizhne-Volzhskogo vodzdravotdela.
(INDUSTRIAL HYGIENE)

DAVYDOV, N.; SHUBINA, O.

Quality of the training of miners. Prof.-tekh. obr. 14 no.4:19-21 Ap '57. (MLRA 10:4)

1. Starchiy inspektor Kemerovskogo oblastnogo upravleniya trudovykh rezervov (for Davydov). 2. Zaveduyushchaya metodicheskim kabinetom (for Shubina).

(Mining engineering--Study and teaching)

27-58-6-8/35

AUTHOR: Shubina, O., Head of the Educational Methods Office of Kemerovo Oblast

TITLE: Shortcomings in the Preparation of Builders (Nedostatki v podgotovke stroiteley)

PERIODICAL: Professional'no-Tekhnicheskoye Obrazovaniye, 1958, Nr 6, p 9-11 (USSR)

ABSTRACT: The author inspected various building and mining industry schools and found that the results of teaching methods were far from satisfactory. Some schools showed very good results, but in many others the students did not even know how to use the simplest tools. The author cites many such examples. She finds that the fault lies mainly with the lack of knowledge of young teachers and with the careless attitude of the foremen in charge of practical instruction.

ASSOCIATION: Uchebno-metodicheskiy kabinet Kemerovskoy oblasti (The Kemerovo Oblast Educational Methods Office)

Card 1/1

1. Construction industry-Study and teaching 2. Mining industry-Study and teaching 3. Education-USSR

SHAKHPER, P.; SHUBINA, O.

Educational center at a construction site. Prof.-tekh.obr. 16 no.2:30-31 F '59. (MIRA 12:5)

1. Direktor uchebnogo punkta tresta "Kemerovotsentrostroy" (for Shakhper). 2. Zaveduyushchaya Kemerovskim oblastnym uchebno-metodicheskim kabinetom (for Shubina).
(Kemerovo--Education, Cooperative)

SHUBINA, O.

New machinery and new demands. Prof.-tekh.obr. 17 no.2:9 F '60. (MIRA 13:6)

1. Zaveduyushchaya metodicheskim kabinetom Kemerovskogo oblastnogo upravleniya professional'no-tekhnicheskogo obrazovaniya.
(Kemerovo Province--Technical education)

SHUBINA, O.

Personnel for mechanization in the mines. Prof.-tekh. obr. 18 no.4:19-20 Ap '61. (MIRA 14:4)

1. Zaveduyushchaya metodicheskim kabinetom Kemerovskogo oblastnogo upravleniya professional'no-tekhnicheskogo obrazovniya.
(Mining engineering—Study and teaching)

AUTHORS: Shubina, O. A. and L. I. Chechulina. 136-9-3/14

TITLE: Extraction of indium as a by-product from Darasun ores. (Poputnoye izvlecheniye indiya iz Darasunskikh rud).

PERIODICAL: Tsvetnye Metally, 1957, No.9, pp. 14-18 (USSR)

ABSTRACT: The presence of indium in Darasun ores was established in 1940 by V. I. Sobolevskiy and work aimed at extracting this element has been carried out by the Irgiredmet organization since 1955. The authors give analysis of the ores and concentrates and describe the concentration scheme used at the Darasun enrichment plant and the scheme for treating the collective concentrates. It was shown in experiments that with the gold-containing ores of the Darasun deposits with high zinc and indium contents a concentrate containing 290-300 g/ton of indium and 40-45% zinc (70% extraction) can be obtained by the selective flotation method adopted; the authors give details of the method. For the typical Darasun ores with 0.5% Zn and 2-3 g/ton of indium it was better to finish the selection by the production of a copper-lead-zinc concentrate, with 90% extraction of each of these elements and 70% extraction of indium. The indium content would amount to 65-70 g/ton and 10 to 15% each of copper,

Card 1/2

Extraction of indium as a by-product from Darasun ores. 136-9-3/14

lead and zinc. The method proposed for extracting indium from the copper-lead-zinc concentrate is to use a chlorinating roast with subsequent leaching with sulphuric acid and chloride solution into which about 90% of each of the elements passes. Gold is extracted from the cake by cyaniding. The authors finally recommend the testing of their proposals on a large scale. An editorial note urges that the extraction of indium from the various Soviet concentrates should be organised centrally.
There are 2 figures and 6 tables.

ASSOCIATION: Irgiredmet.

AVAILABLE: Library of Congress.

Card 2/2 1. Ores-Deposits 2. Indium-Extraction

YERMAN, B. A.; ESSEL', A. Ye.; BRONITSKAYA, Ye. Yu.; SHUBINA, S. B.; MYASNIKOVA, A. T.

"Tsitofotometricheskoye opredeleniye soderzhaniya rnk v kletkakh ner-2, zarazhennykh rnk-soderzhashchim virusom."

report presented at Symp on Virus Diseases, Moscow, 6-9 Oct 64.

Institut virusnykh infektsiy, Sverdlovsk.

KOPVILLEM, U.Kh.; SHUBINA, R.V.

Feasibility of absolute polarization of magnetic nuclei by the pulse method. Fiz.tver.tela 4 no.7:1717-1727 Jl '62. (MIRA 16:6)

1. Kazanskiy filial AN SSSR.
(Magnetic fields) (Nuclear spin)

KOPVILLEM, U.Kh.; SHUBINA, R.V.

Double excitation of free induction and spin echo in crystals in the absence of a static magnetic field. Izv. vys. ucheb. zav.; fiz. no.5:6-13 '63. (MIRA 16:12)

1. Fiziko-tekhnicheskiy institut Kazanskogo filiala AN SSSR i Kazanskiy gosudarstvennyy universitet imeni V.I.Ul'yanova (Lenina).

L 31494-66 EWT(1)/EWT(m) IJP(c)
ACC NR: AP6013023 SOURCE CODE: UR/0051/66/020/004/0661/0668

AUTHOR: Shubina, R. V. 78

ORG: none 19 77 B

TITLE: Raman analog of electron and nuclear spin induction and echo

SOURCE: Optika i spektroskopiya, v. 20, no. 4, 1966, 661-668

TOPIC TAGS: Raman effect, Raman spectroscopy, electron spin, nuclear spin, laser application, Schroedinger equation, relaxation process, PULSE GENERATOR

ABSTRACT: The author investigates the possibility of using high power pulsed light sources in Raman spectroscopy. To this end, a solution is obtained for the Schroedinger equation of a system of particles with a discrete energy spectrum, subject to simultaneous action of two pulsed generators. The quantum mechanical system subjected to the pulsed generators is assumed to have a certain number of particles with nondegenerate nonequidistant levels. The frequencies of the generators are different. The solutions obtained for the Schroedinger equation show that such an excitation will give rise to signals which are the analog of spin induction and spin echo and that the information contained in these signals is more abundant that that contained in ordinary Raman signals for the scattering

Card 1/2 UDC: 539.192

L 31494-66
ACC NR: AP6013023

of light, radiowaves, and phonons. If the generator intensity is sufficiently strong, the pulse duration can be chosen so short that the excitation processes in the medium will not depend on the relaxation mechanisms. The solutions indicate the existence of a great variety of nonequilibrium states of matter, which can be used to extend the capabilities of pulsed Raman spectroscopy. Signals obtained for the Cl^{35} ion in $NaClO_3$ are described by way of an example. The author is deeply grateful to U. Kh. Kopvillem for guidance. Orig. art. has: 2 figures and 2 formulas.

SUB CODE: 20/ SUBM DATE: 12Feb65/ ORIG REF: 003/ OTH REF: 003

Card 2/2 mc

L 36392-66 EWT(1) IJP(c) WW/GG

ACC NR: AP6014033 SOURCE CODE: UR/0056/66/050/004/0936/0942

AUTHOR: Shubina, R. V.

ORG: Kazan Physicotechnical Institute, AN SSSR (Kazanskiy fiziko-tekhnicheskiy institut AN SSSR)

TITLE: Free induction signal in exchange pairs

SOURCE: Zhurnal eksperimental'noy i teoreticheskoy fiziki, v. 50, no. 4, 1966, 936-942

TOPIC TAGS: magnetic resonance, wave equation, signal shape, oscillation, temperature dependence

ABSTRACT: Equations for the initial amplitude and shape of the free induction signal were obtained under normal conditions of magnetic resonance, and a dependent-wave equation for the interaction of two coupled spins in fields of arbitrary intensity was employed. The temperature dependence of the signal was taken into account. It was shown that due to the relaxation terms, the decay of the free induction signal is oscillatory. The signal amplitude contains oscillations with a frequency proportional to the interaction constant of the bound paired spins. It was shown that the variation in the shape of the free induction signal depends on temperature T. Near T = 0, the decay of the free induction signal becomes weaker. The results of the theory were considered for the case of d^{3+} pairs in ethyl

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L 36392-66

ACC NR: AP6014033

sulfate LaES. The author thanks U. Kh. Kopvillem for supervising the work. Orig. art. has: 3 figures and 5 formulas. [Based on author's abstract] [NT]

SUB CODE: 20/ SUBM DATE: 20Jul65/ ORIG REF: 002/ OTH REF: 009

Card 2/2 mlp

RODIGIN, Nikolay Mikhaylovich; KOROBEYNIKOVA, Ida Yegorovna; KRASYUKOV, N.A., inzh., retsenzent; SHUBINA, S.B., inzh., retsenzent; ALISIONOK, G.I., inzh., retsenzent; DUGINA, N.A., tekhn.red.

[Using eddy currents in controlling the quality of products] Kontrol' kachestva izdelii metodom vikhrevykh tokov. Moskva, Gos.nauchno-tekhn.izd-vo mashinostroit.lit-ry, 1958. 61 p. (MIRA 12:3)

(Metalwork--Quality control) (Electric currents, Eddy)

PHASE I BOOK EXPLOITATION SOV/4959

Ural'skoye soveshchaniye po spektroskopii

Materialy 2 Ural'skogo soveshchaniya po spektroskopii, Sverdlovsk, 1958 g. (Materials of the Second Urals Conference on Spectroscopy, Held in Sverdlovsk, 1958) Sverdlovsk, Metallurgizdat, 1959. 206 p. Errata slip inserted. 1,000 copies printed.

Sponsoring Agency: Ural'skiy filial Akademii nauk SSSR. Komissiya po spektroskopii and Ural'skiy dom tekhniki VSNTO.

Eds.: Aron Borisovich Shayevich and Gennadiy Pavlovich Skornyakov; Tech. Ed.: P. M. Matlyuk.

PURPOSE: This collection of articles is intended for spectral analysis laboratory workers at ferrous and nonferrous metallurgical plants, and for laboratory personnel of the metal-working industry, geological and prospecting organizations, and similar scientific research laboratories.

COVERAGE: The collection contains papers read at the Second Urals Conference on the spectral analysis of ferrous and nonferrous metals and alloys, slags, ores, agglomerates, refractories and other materials used in industry. The material of the conference includes articles on the analysis of steels (including the determination of gases), ferroalloys, nonferrous and light metals and alloys, pure noble metals, etc. The present volume is intended to disseminate the latest experience in working with spectral laboratories, and to report on the results of scientific research. The author thanks R. I. Outkina and Yu. M. Buravlev. Almost all of the articles are accompanied by references.

SHUBINA, S.B.

SHUBINA, S.B.; SHAYEVICH, A.B.; PROSTAKOV, M.Ye.; BASOVA, Ye.P.

Simplified method for determining tin content of canned food by means of spectrum analysis. Kons.i ov.prom. 14 no.12:30-31 D '59. (MIRA 13:3)

1. Ural'skiy nauchno-issledovatel'skiy institut chernykh metallov.
(Food, Canned--Analysis) (Tin--Spectra)

S/137/62/000/004/194/201
A154/A101

AUTHORS: Shubina, S. B., Shayevich, A. B., Basova, Ye. P.

TITLE: Quantitative spectrographic analysis of ferrochrome, chromium, ferroniobium, ferrovanadium and ferromolybdenum for the content of small admixtures of non-ferrous metals

PERIODICAL: Referativnyy zhurnal, Metallurgiya, no. 4, 1962, 6, abstract 4K31 ("Nekotor. vopr. emission. i molekulyarn. spektroskopii", Krasnoyarsk, 1960, 82-90)

TEXT: An 80 mg test batch is introduced into the channel of a carbon electrode 6 mm in diameter; a 6 mm conical carbon rod is used as a second electrode. Test sample is heated and a spectrum is excited by a ДГ-2 (DG-2) generator (I = 15 - 16 amp). When Sn and As admixtures are being determined in Fe-Cr and Cr, or when As is determined in Fe-Nb, test samples are supplemented with S, in an amount of 0.1% of the volume of the analyzed substance. The analysis is carried-out with the aid of ИСП -28 (ISP-28) spectrograph whose slit has a width of 0.010 mm. Test samples are analyzed by the three-standards method. The reproducibility of the determinations is characterized by a mean

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SHAYEVICH, A.B., SHUBINA, S.B.

Essence and field of application of the fractional exponent method of superposed (synthetic) spectra. Inzh.-fiz.zhur. no.4:115-118 Ap '60. (MIRA 13:8)

1. Ural'skiy nauchno-issledovatel'skiy institut chernykh metallov, Sverdlovsk.
(Spectrum analysis)

S/032/60/026/012/009/036
B020/B056

AUTHORS: Shubina, S. B., Shayevich, A. B., and Basova, Ye. P.

TITLE: Spectroscopic Analysis of Ferro Alloys and Chromium for Non-ferrous Metal Impurities

PERIODICAL: Zavodskaya laboratoriya, 1960, Vol. 26, No. 12, pp. 1364-1366

TEXT: In the present paper the spectroscopic methods of determining lead, tin, antimony, bismuth, arsenic, zinc, and cadmium in ferrochromium, chromium, ferroniobium, ferrovanadium, and ferromolybdenum are described. Determination of these impurities in the relatively high-melting substances with multiband spectra may be carried out by means of fractional distillation in the arc by means of an evaporator or by a previous chemical preparation. If the impurity content is not too low, the fractional distillation from the channel of the "cup-shaped" electrode (Ref. 1) in the a.c. arc is most convenient. The test sample was a powder to which sulfur, soda, and graphite were added to increase spectral sensitivity. The results obtained by analysis on the basis of the "absolut blackenings of the

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bands were sufficiently reproducible. The standards were prepared synthetically from the pulverulent sample with the lowest impurity content, the samples with solutions of known impurity content were wetted and dried. As the decomposition temperature and the sublimation temperature of the oxides of impurity elements and the evaporation temperature of the metal impurities is near the heating temperature of the sample in the electrode channel, the conditions of entry into the arc are the same for an element determined from samples and standards in the case of quantitative evaporation. As an example, the evaporation curves of lead from a standard sample ferroniobium and from synthetically prepared standards are mentioned (Fig.). The initial standard solutions are specially prepared for each impurity , because all of them together cannot be kept in solution. Each solution contained 0.1% of the impurity. The weighed portion of 80 mg of the average sample, granulated to 150 to 200 mesh, is introduced into a channel of a carbon electrode having a diameter of 6 mm. As a second electrode, a carbon rod with a diameter of 6 mm was used, which was ground to the shape of a truncated cone. For excitation of the spectrum, a ДГ-2 (DG-2) generator with 15-16a was used. For the determination of tin and arsenic in ferrochromium and chromium and of arsenic

in ferroniobium, elementary sulfur in a quantity of 1/10 of the volume of the analyzed substance is added to the samples. For suppressing the spectrum of the basic material in the analysis of ferrovanadium and increasing the sensitivity in the determination of tin in these alloys, graphite in a quantity of 0.25 - 0.50 of the volume of the analyzed substance is introduced into the sample. The ИСП-28 (ISP-28) spectrograph having a slit width of 0.010 mm was used. The analytical bands are given in Table 1. The analysis is carried out according to the three-standard-technique. The reproducibility of the determinations is characterized by the mean square error of the determination of three samples, and amounts to 6 - 12%. The limits within which the certain impurities may be detected are given in Table 2. In one working layer, 10-15 samples may be analyzed for all impurities by means of the method described. There are 1 figure, 2 tables, and 5 references: 4 Soviet and 1 US.

TOPALOV, Leonid Ivanovich; SHAYEVICH, Aron Borisovich; SHUBINA, Sof'ya Borisovna; TUMANOV, A.K., retsenzent; CHAPAYKINA, F.K., red. izd-va; MAL'KOVA, N.T., tekhn. red.

[Spectrum analysis of ferroalloys]Spektral'nyi analiz ferrosplavov. Sverdlovsk, Metallurgizdat, 1962. 288 p. (MIRA 16:1)
(Iron alloys--Spectra)

DUBROV, N.F.; GORLACH, I.A.; PRIVALOV, S.S.; SHAYEVICH, A.B.; SHUBINA, S.B.

At the Urals Research Institute of Ferrous Metals. Stal' 22 no.9:812, 854 S '62. (MIRA 15:11)
(Ural Mountain region—Metallurgical research)

SHAYEVICH, A.B.; SHUBINA, S.B.

Possibility of controlling liquid cast iron without sampling. Zav.lab. 28 no.4:447-449 '62. (MIRA 15:5)

1. Ural'skiy nauchno-issledovatel'skiy institut chernykh metallov.

(Cast iron—Spectra)

SHUBINA, S.B.; SHAYEVICH, A.B.; KILINA, S.I.; MEL'NIKOV, S.I.; BAZANOVA, L.A.

Rapid determination of oxygen in metals by spectral analysis.
Zav.lab. 28 no.8:942-943 '62. (MIRA 15:11)

1. Ural'skiy nauchno-issledovatel'skiy institut chernykh metallov.
(Metals--Oxygen content) (Spectrum analysis)

ZHUBINA, S.B.; SHAYEVICH, A.B.; DEMENT'YEVA, V.G.

Determination of hydrogen in steels by spectral analysis. Zav.lab. 29 no.5:552-555 '63. (MIRA 16:5)

1. Ural'skiy nauchno-issledovatel'skiy institut chernykh metallov.
(Steel--Hydrogen content) (Spectrum analysis)

BASOVA, Ye.P.; ZHOROVA, N.I.; SHAYEVICH, A.B.; SHUBINA, S.B.

Spectrographic determination of nonferrous metal impurities in raw materials used in the manufacture of ferroalloys and heat-resistant alloys. Zav. lab. 28 no.9:1075-1076 '62. (MIRA 16:6)

1. Ural'skiy nauchno-issledovatel'skiy institut chernykh metallov.
(Alloys) (Nonferrous metals—Spectra)

SHAYEVICH, A.B.; SHUBINA, S.B.

Problem of standardization during spectral analysis. Zav.lab. 29 no.4:429-431 '63. (MIRA 16:5)

1. Ural'skiy nauchno-issledovatel'skiy institut chernykh metallov.
(Spectrum analysis--Standards)

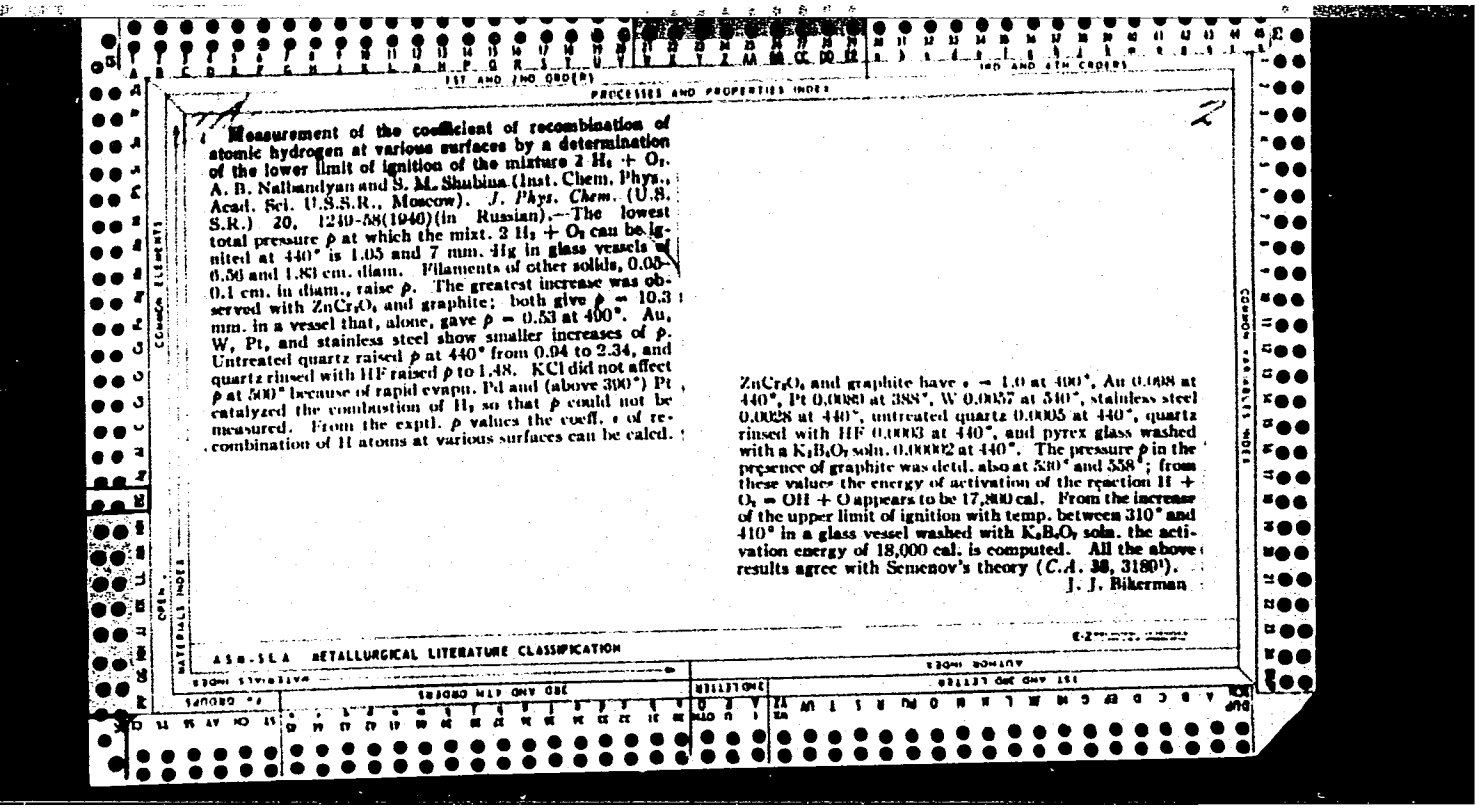
SHAYEVICH, Aron Borisovich; SHUBINA, Sof'ya Borisovna

[Industrial methods of spectrum analysis] Promyshlennye metody spektral'nogo analiza. Moskva, Metallurgiia, 1965. 223 p. (MIRA 18:2)

YERMAN, B.A.; PLOTNIKOV, N.P.; KADKINA, Ye.V.; MYASNIKOVA, A.T.; SHUBINA, S.B. (Sverdlovsk)

Morphology and cytochemistry of the cells of the HEp-2 tissue culture under normal conditions and in enterovirus infections. Arkh. pat. 26 no.9:47-55 '64. (MIRA 18:4)

1. Sverdlovskiy nauchno-issledovatel'skiy institut virusnykh infektsiy (dir. G.F.Bogdanov).



Measurement of the coefficient of recombination of atomic hydrogen at various surfaces by a determination of the lower limit of ignition of the mixture $2H_2 + O_2$. A. B. Nalbandyan and S. M. Shubina (Inst. Chem. Phys., Acad. Sci. U.S.S.R., Moscow). *J. Phys. Chem.* (U.S.S.R.) 20, 1249-58(1946)(in Russian).—The lowest total pressure p at which the mixt. $2H_2 + O_2$ can be ignited at 440° is 1.05 and 7 mm. Hg in glass vessels of 0.56 and 1.83 cm. diam. Filaments of other solids, 0.03–0.1 cm. in diam., raise p. The greatest increase was observed with $ZnCr_2O_4$ and graphite; both give $p = 10.3$ mm. in a vessel that, alone, gave $p = 0.53$ at 440°. Au, W, Pt, and stainless steel show smaller increases of p. Untreated quartz raised p at 440° from 0.04 to 2.34, and quartz rinsed with HF raised p to 1.48. KCl did not affect p at 500° because of rapid evapn. Pd and (above 390°) Pt catalyzed the combustion of H_2 so that p could not be measured. From the expt. p values the coeff. ϵ of recombination of H atoms at various surfaces can be calcd. $ZnCr_2O_4$ and graphite have $\epsilon = 1.0$ at 440°, Au 0.008 at 440°, Pt 0.0088 at 388°, W 0.0057 at 540°, stainless steel 0.0028 at 440°, untreated quartz 0.0005 at 440°, quartz rinsed with HF 0.0003 at 440°, and pyrex glass washed with a $K_2B_4O_7$ soln. 0.00092 at 440°. The pressure p in the presence of graphite was detd. also at 530° and 558°; from these values the energy of activation of the reaction $H + O_2 = OH + O$ appears to be 17,800 cal. From the increase of the upper limit of ignition with temp. between 310° and 410° in a glass vessel washed with $K_2B_4O_7$ soln. the activation energy of 18,000 cal. is computed. All the above results agree with Semenov's theory (*C.A.* **38**, 3180¹). J. J. Bikerman

Shubina, S. M.

Differential thermal microanalysis. A. V. Nikolaev and S. M. Shubina. *Voprosy Petrog. i Mineral., Akad. Nauk S.S.S.R.* 2, 427–32(1953).—For samples of only a few mg. the usual thermocouples are too thick and cannot detect small thermal effects. A direct recording of the heating curves on photographic paper (Kurnakov differential galvanometer) is possible if the rotation of the recording drum is considerably accelerated, and the heating rate increased to 100°/min. Berg and Rossonskaya (*C.A.* 45, 32*c*) described a very useful microapp. with a metal heating block (up to 1000°); heating and differential thermal analysis curves are shown for inyoite, $2CaO.3B_2O_3.13H_2O$, Peyron's salt, *cis*-$PtCl_2.2NH_3$, and $Na_2C_2O_4$. Inyoite shows 2 endothermic effects, and one exothermic effect, in excellent agreement with detns. by macro methods. Also the conversion of cis → trans compds., e.g. in Peyron salt, are observed by the micromethod, although somewhat displaced in temp. The entire course of the microcurves corresponds nearly to the complete equil. conditions. The decompn. of $Na_2C_2O_4$ to Na_2CO_3, and the transition of the metastable Na_2CO_3 to the stable modification are clearly observed in both types of curves.

W. Ritel

5(4), 21(5) SOV/78-4-4-43/44

AUTHORS: Nikolayev, A. V., Shubina, S. M.

TITLE: On the Isotope Exchange of Tributyl Phosphate With Tagged Phosphoric Acid (Ob izotopnom obmene tributilfosfata s mechenoy fosfornoy kislotoy)

PERIODICAL: Zhurnal neorganicheskoy khimii, 1959, Vol 4, Nr 4, pp 956-958 (USSR)

ABSTRACT: The authors investigated the exchange between tributyl phosphate and radioactive phosphoric acid as well as their derivatives. The contact times ranged from one minute to one month, and the investigation covered acid and alkaline solutions. The results are listed in table 1. The authors did not observe an exchange between radioactive phosphoric acid and tributyl phosphate. By a single washing out tributyl phosphate is almost completely freed from the β-activity of tagged phosphoric acid. There are 1 table and 2 references.

SUBMITTED: February 11, 1958

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SOV/2o-127-3-27/71

5(2,3), 21(5)

AUTHORS: Nikolayev, A. V., Corresponding Member, AS USSR, Shubina, S. M., Sinitsyn, N. M.

TITLE: Extraction of Nitric Acid by Derivatives of Butylphosphinic Acids

PERIODICAL: Doklady Akademii nauk SSSR, 1959, Vol 127, Nr 3, pp 578 - 58o (USSR)

ABSTRACT: The present information constitutes part of the work on the extracting properties of some butyl-phosphine compounds: tributylphosphate (TBPh), dibutyl ester of butylphosphinic acid (BPhSW), butyl ester of dibutylphosphinic acid (DPhBE) and tributylphosphine oxide (TBPhO). The acid derivatives mentioned in the title are more efficient as extracting agents than TBPh for important elements such as uranium and plutonium. Since this extraction is usually carried out from nitric solutions, it becomes necessary to investigate the distribution of HNO_3 in the aqueous solutions and the so-called organic solvents. No data have been published in this connection (except on TBPh, Refs 2-4). This gave reason for

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the present investigation. The dependence of the HNO_3 distribution on the concentration of used extracting agents and on the presence of uranyl nitrate in the solution, was studied here. Saturated, highly boiling hydrocarbons (SHC) and CCl_4 were used as diluents of the extracting agents.

According to the data given by table 1 showing the experimental results, the extraction of HNO_3 increases with an increased concentration of the extracting agent in the SHC. The HNO_3 extraction rapidly increases during the transition from TBPh to TBPhO in the series (Fig 1). An increase of more than 50% of the concentration of BPhDE in the diluent, caused an abnormally reduced acid extraction, compared to other extracting agents of the same series (Fig 1 and Table 1). During the HNO_3 extraction with a 5% solution of TBPhO in SHC a second organic phase was separated which apparently is a combination of TBPhO and HNO_3 (Ref 2). When CCl_4 was used, this second phase did not occur: Table 2 gives the

extraction results by means of the same extraction agents, in the presence of uranyl nitrate. Within the concentration sphere of the extracting agent 0∼5o%, the HNO_3 extraction is reduced according to the rule, in the series of TBPh to TBPhO. This is probably due to the increase in the extraction of the uranyl nitrate and thus also due to the displacement of HNO_3 from the organic phase to the aqueous phase. This displacement is the more intensive, the more effective the extraction of the extracting agent of uranyl nitrate (Tables 1 and 2). Consequently the presence of uranyl nitrate influences HNO_3 extraction less and less with a ∼5o% BPhDE concentration and is finally hardly noticeable. All this proves that the extractability forms the following series: TBPh < DPhBE < BPhDE < TBPhO: at the same time a combination of the acid and TBPhO can be isolated. Up to now it has been impossible to explain the abnormal behavior of BPhDE in its relation to HNO_3 in the presence of uranyl-nitrate

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R001550120004-3"

as well as in its absence. There are 1 figure, 2 tables, and 4 references, 2 of which are Soviet.

ASSOCIATION: Institut obshchey i neorganicheskoy khimii im. N. S. Kurnakova Akademii nauk SSSR (Institute for General and Inorganic Chemistry imeni N. S. Kurnakov of the Academy of Sciences, USSR)

PRESENTED: April 27, 1959, by I. I. Chernyayev, Academician

SUBMITTED: April 27, 1959

NIKOLAYEV, A.V.; SINITSYN, N.M.; SHUBINA, S.M.

Donor-acceptor concepts in their application to extraction. Zhur. strukt. khim. 1 no.3:319-323 S-O '60. (MIRA 14:1)

1. Institut neorganicheskoy khimii Sibirskogo otdeleniya AN SSSR.
(Extraction (Chemistry))

S/186/60/002/001/001/022
A057/A129

21.3200

AUTHORS: Nikolayev, A.V.; Shubina, S.M.; Sinitsyn, N.M.

TITLE: Extraction of the sum of radioactive isotopes with butyl phosphinic esters

PERIODICAL: Radiokhimiya, v. 2, no. 1, 1960, 3 - 5

TEXT: The present paper is a part of the research program on extraction characteristics of butyl phosphoric derivatives. The extraction of the sum of radioactive isotopes with two butyl phosphinic esters, namely $(C_4H_9O)_2(C_4H_9)PO$ and $(C_4H_9O)(C_4H_9)_2PO$ was studied. Extractability of rare elements and rare earth elements is important for the extraction technique of uranium and plutonium fission products. L.L. Burger [Ref. 1: J. Phys. Chem., 62, 5, 590 (1958)] observed already the dependence of extractability of uranium and plutonium on the nature of alkyl-phosphoric compounds used as extraction solvent. Investigations concerning the extraction of rare and rare earth elements were made only with tributyl phosphate [investigation of the American authors: I. Warf; D.F. Peppard; B. Waever et al; J.M. Fletcher et al; and the Soviet authors: A.V. Nikolayev et al, ZhNKh, 3, 1, 160 (1958)], or dialkyl-phosphoric acids [C.A. Blake, Report no.

Card 1/4

21337

S/078/61/006/004/008/018
B121/B216

21.3200

AUTHORS: Nikolayev, A. V., Shubina, S. M.

TITLE: Infrared spectroscopic study of the bond type of complexes of uranyl nitrate with derivatives of butyl phosphoric acid

PERIODICAL: Zhurnal neorganicheskoy khimii, v. 6, no. 4, 1961, 799-803

TEXT: The authors studied the type and position of the bonds of complexes formed by uranyl nitrate in the following extraction solvents: tributyl phosphate, the dibutyl ester of butyl phosphonic acid, and tributyl phosphine oxide. The infrared spectra of the extracting agent and their complexes with uranyl nitrate were taken in the frequency range of 700-3000 cm^{-1}. It was established that complex formation between uranyl nitrate and butyl phosphoric acid derivatives occurs through the P=O bond. The absorption spectra of the pure solvents show that the P=O absorption in the range of lower frequency shifts on passing from tributyl phosphate to tributyl phosphine oxide. Evaluation of the infrared spectra of solutions of the uranyl nitrate complexes formed with the

S/830/62/000/002/001/002
D214/D308

AUTHORS: Nikolayev, A.V., Sinitsyn, N.M., and Shubina, S.M.

TITLE: Acceptor-donor concepts as applied to extraction

SOURCE: Ekstraktsiya; teoriya, primeneniye, apparatura, no. 2, Ed. by A.P.Zefirov and M.M. Senyavin. Moscow, Gosatomizdat, 1962, 63 - 70

TEXT: The influence of various groups present in an extracting agent on the extraction ability of the agent was studied. In the series of extracting agents $(C_4H_9O)_{3-n}(C_4H_9)_nPO$ (where n = 0, 1, 2, 3) the P-oxygen was found to be active and responsible for the formation of the complex $UO_2(NO_3)_2 \cdot 2A$ (where A = extracting agent) by donation of electrons to $(UO_2)^{2+}$. As the value of n rises the electron density on the P-oxygen increases

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Acceptor-donor concepts ...

and hence the extraction power of the agent increases. This was verified on U^{VI}, Th^{IV}, Pu^{IV} and Pu^{VI}. The introduction of an electronegative radical into the molecule of the agent will reduce the extraction power while the presence of highly branched chains will prevent the formation of the complex by steric hindrance. Similar arguments apply to the $R_{3-n}P(OR')_n$ type of extracting agent. An extracting agent must, therefore, be sufficiently polar to permit the formation of the complex but the polarity must not be such that the agent becomes water-soluble or that the resulting complex becomes insoluble in nonpolar solvents. It now remains to determine the permissible polarity limits. There are 2 figures and 4 tables.

Card 2/2

[redacted], G.M., kand. [illegible] nauk, docent; SHUBINA, S.V., assistant

Quantitative determining of nickel in textiles waterproofed with alkyl silicomates. Tekst. prom. 25 no.7:53-55 Jl '65. (MIRA 18:8)

1. Moskovskiy tekstil'nyy institut (MTI).

BEREZINA, V.I.; SHUBINA, T.N.

Combined method for the hydrolysis of ethyl silicates.
Lit. proizv. no.1:38 Ja '63. (MIRA 16:3)
(Ethyl silicates)
(Hydrolysis)

KNORRE, D. G.; SHUBINA, T. N.

"Synthesis of peptides in aqueous solution without isolation of the intermediate peptides."

report submitted for 7th European PeptideSymp, Budapest, 3-8 Sep 64.

KNORRE, D.G.; SHUBINA, T.N.

Reaction between formylglycine and p-toluenesulfonate cyclohexyl β-[N(N-methylmorpholinium)] of ethylcarbodiimide. Kin. i kat. 5 no.4:637-641 Jl-Ag '64. (MIRA 17:11)

1. Institut organicheskoy khimii Sibirskogo otdeleniya AN SSSR, Novosibirsk.

KNOHRE, D.I.; TIKHOVA, N.M.; SHUBINA, T.N.

Nature of the labile product of reaction of water-soluble carbodiimide with formylglycine. Izv. SO AN SSSR no.3 Ser. khim. nauk no.1:149-151 '65. (MIRA 18:8)

1. Novosibirskiy institut organicheskoy khimii Sibirskogo otdeleniya AN SSSR.

KNORRE, D.G.; SHUBINA, L.N.

Synthesis of tetrapeptides without separation of intermediate peptides. Dokl. AN SSSR 150 no.3:559-561 My '63.
(MIRA 16:6)

1. Novosibirskiy institut organicheskoy khimii Sibirskogo otdeleniya AN SSSR. Predstavleno akademikom M.I. Kabachnikom.

SHUBINA, T.S.

Effect of reversibility during cold rolling on the internal state of transformer steel sheets. Trudy Ural. politekh. inst. no.127:127-131 '61. (MIRA 16:8)

GEL'D, P.V.; LIPATOVA, V.A.; SIDORENKO, F.A.; SHUBINA, T.S.

Antiferromagnetism of α-leboit. Fiz. met. i metalloved. 14 no.2: 298-299 Ag '62. (MIRA 15:10)

1. Ural'skiy politekhnicheskiy institut imeni Kirova.
(Ferromagnetism) (Iron-silicon alloys--Metallography)

L 33515-65 EWT(m)/EPF(n)-2/EPR/EWG(m)/EWP(e)/EWP(t)/EWP(b) Ps-4/Pu-4 IJP(c)
JD/JG/AT/WH

ACCESSION NR: AP5006190 S/0226/65/000/002/0033/0040

AUTHOR: Radovskiy, I. Z.; Shubina, T. S.; Gel'd, P. V.; Sidorenko, F. A. 31 30 B

TITLE: Magnetic susceptibility of chromium silicides 27 27

SOURCE: Poroshkovaya metallurgiya, no. 2, 1965, 33-40

TOPIC TAGS: magnetic susceptibility, chromium inorganic compound, silicide, semiconductor property

ABSTRACT: Chromium silicides were selected for research because of their infusibility, thermal stability and extreme hardness and because of the semiconductor properties of the bisilicide. There are four intermetallic compounds in the chromium-silicon system: Cr_3Si, Cr_5Si_3, CrSi and $CrSi_2$. Unfortunately, little attention has been given to their physical properties. In the studies which have been made, there is disagreement among the authors as to the value of the magnetic susceptibility of the lower chromium silicides. This is apparently due to poor control of the quality and phase state of the specimens. The effect of temperature on the magnetic susceptibility of the four intermetallic compounds was studied in the 20-800°C range. It was found that the Curie-Weiss law is true for chromium

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L 33515-65
ACCESSION NR: AP5006190

monosilicide, while the susceptibility of the other compounds is dependent on temperature.

ASSOCIATION: Ural'skiy politekhnicheskiy institut im. S. M. Kirova (Ural Polytechnic Institute)

SUBMITTED: 05Dec63 ENCL: 00 SUB CODE: EM

NO REF SOV: 014 OTHER: 006

Card 2/2

SHUBINA, T.S.; SIDORENKO, F.A.; GEL'D, P.V.

Magnetic susceptibility and valent state of iron monosilicide atoms. Fiz. met. i metalloved. 19 no.4:544-549 Ap '65. (MIRA 18:5)

1. Ural'skiy politekhnicheskiy institut imeni Kirova.

GUTNER, I.I.; SHUBINA, Ye.A.

Effectiveness of therapeutic measures in nurseries for children ill with chronic dysentery. Vop.okh.mat. i det. 1 no.4:79-81 Jl-Ag '56. (MLRA 9:9)

1. Iz yasley No.85 Petrogradskogo rayona Leningrada dlia bol'nykh khronicheskoy dizenteriyey (glavnyy vrach Ye.A.Shubina)
(DYSENTERY)

SERKOV, A.T.; KONKIN, A.A.; KOTOMINA, I.N.; SHUBINA, Ye.V.

Surface phenomena occurring in the system viscose - spinneret - precipitation bath. Khim.volok. no.5:31-33 '59. (MIRA 13:4)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut iskusstvennogo volokna (VNIIV).
(Viscose) (Rayon) (Surface chemistry)

SERKOV, A.T.; KOTOMINA, I.N.; SHUBINA, Ye.V.

Surface phenomena during the formation of viscose fibers. Report No.2. Khim.volok. no.5:34-36 '60. (MIRA 13:12)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut iskusstvennogo volokna.

(Viscose)

SHUBINETS, M.V. [Shubinets', M.V.]

Structure of the arterial canal of the thymus gland in dogs.
Dop. AN URSR no. 6:817-821 '64. (MIRA 17:9)

1. Ivano-Frankovskiy gosudarstvennyy meditsinskiy institut.
Predstavleno akademikom AN UkrSSR V.G.Kas'yanenko [Kas'ianenko, V.H.].

SHUBINETS, M.V.

State of the blood bed within the thymus gland of a dog following development of a collateral arterial blood circulation. Nauch.dokl. vys.shkoly; biol.nauki no.3:60-63 '65.

(MIRA 18:8)

1. Rekomendovana kafedroy normal'noy anatomii Ivano-Frankovskogo meditsinskogo instituta.

SHUBINETS, M.V.

Restoration of blood flow in the arterial bed of the thymus gland and changes in calcium-phosphorus balance under the conditions of experimental ischemia of the organ. Arkh.anat., gist. i embr. 49 no.10:27-33 O '65.

(MIRA 18:12)

1. Kafedra anatomii (zav. - prof. Ye.P.Mel'man) Ivano-Frankovskogo meditsinskogo instituta. Submitted Jan. 14, 1965.

MYNKIN, A.Ye.; GONCHAROV, T.K., elektromekhanik, SHUBINOV, V.I., starshiy elektromekhanik

Replacing of selenium columsn with germanium diodes. Avtom., telem. i sviaz' 4 no.9:30 S '60. (MIRA 13:9)

1. Nachalnik laboratorii signalizatsii i svyazi Yugo-Vostochnoy dorogi (for Mynkin).

(Selenium rectifiers) (Railroads--Electric equipment)
(Germanium diodes)

ANTI, A.; SHUBINSKIY, A., mekhanik

Utilization of PTS-4 hold machinery in loading coke. Mor.flot 19 no.9:29-30 S '59. (MIRA 12:11)

1. Starshiy dispetcher Estonskogo parokhodstva (for Anti). 2. Otdel mekhanizatsii Tallinskogo porta (for Shubinskiy).
(Tallinn--Loading and unloading) (Coke--Transportation)

ANTI, A.; SHUBINSKIY, A., mekhanik

Operational qualities of machines for transshipping compacted bulk materials. Rech. transp. 19 no.4:42-43 Ap '60. (MIRA 14:3)

1. Starshiy dispetcher Estonskogo morskogo parokhodstva (for Anti).
2. Tallinskiy morskoy port (for Shubinskiy).
(Loading and unloading)

BUKHTIYAROV, Nikolay Gavrilovich; LIPKIN, Il'ya Alekseyevich; SHUBINSKIY, Aleksandr Il'ich; LEBEDEV, A., tekhn. red.

[Insurance and payment tables for the voluntary insurance of buildings] Tablitsy po ischisleniiu strakhovykh summ i platezhei po dobrovol'nomu strakhovaniiu stroenii. Moskva, Gosfinizdat, 1961. 69 p. (MIRA 15:7)
(Insurance, Property--Tables and ready reckoners)

SHUBINSKIY, Aleksandr Iosifovich; KABANOV, Yuriy Nikolayevich; ANDREYEVA, L.S., red.; ZAREZIN, I.V., red.

[Electrician in harbor mechanization] Elektromonter portovoi mekhanizatsii. Moskva, Transport, 1965. 183 p. (MIRA 18:9)

SHUBKIN, V.

Aid for economically weak collective farms. Vop. ekon. no.3:51-57 Mr '58. (MIRA 11:4)
(Collective farms) (Machine-tractor stations)

SHUBKINA, L.; GUSEV, P.; VOZNESENSKIY, L.

What prevents the use of modern techniques in the issue of credit. Den. i kred. 15 no.7:44-46 Jl '57. (MLRA 10:8)
(Moscow--Bearing industry--Finance)

SHUBKINA, I.

Wages on automatic lines. Sots.trud 4 no.3:55-59 Mr '59.
(MIRA 12:4)

(Wages)

SHUBKINA, I.P., kand.ekon.nauk

Automation and the worker. Mashinostroitel' no.1:34-36 Ja '60.
(MIRA 13:4)

(Automation)

S/117/61/000/001/011/013
A004/A001

AUTHOR: Shubkina, I. P., Candidate of Economical Sciences

TITLE: On the Economic Analysis of the Overall Automation of Production

PERIODICAL: Mashinostroitel', 1961, No. 1, pp. 33-35

TEXT: The author points out that an economic analysis of fully automated production processes cannot only be based on the cost of the component as a whole but that also the main costs for individual operations have to be considered. As an example he cites the production of outer races of conical roller bearings at the Pervyy Gosudarstvennyy podshipnikovyy zavod (First State Bearing Plant) and points out that, at present, the technological manufacturing process of these items is not homogeneous concerning the technical level. Although most of the operations are carried out on the automatic transfer line, the blank production process is not automated, and the same blanks are used for automated production of the outer races and for non-automated production of these parts. This means that more than half of the metal is not utilized efficiently, the coefficient of metal utilization amounting only to 0.46. The absence of precise blanks affects lathe operations to the highest degree, since the great allowances necessary render the

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On the Economic Analysis of the Overall Automation of Production

lathe operations uneconomical. the practice of planning technological processes in the bearing industry shows that these deficiencies can be eliminated by using other kinds of blanks, e.g. hot-rolled and turned pipes, cut off on pipe-cutting automatics, or ring-shaped blanks of rod steel, manufactured by automated hot-stamping processes. The table presents the comparative prime costs of the different methods of machining the outer races of roller bearings in rubles/1,000 pieces.

Table:

1) costs; 2) machining methods:

1) Затраты	2) Методы обработки		
	a) Штамповка с последующей раскаткой	b) Изготовление кольцевой заготовки из обточенной и отожженной трубы с полной токарной обработкой	c) Автоматизированный процесс штамповки на автоматической линии типа „Вагнер"
3) Основные материалы .	2364,3	3520,0	1784,2
4) Заработная плата основных производственных рабочих .	279,3	147,2	194,6
5) Амортизация оборудования	179,0	192,4	284,0
6) Энергетические затраты	414,0	287,6	484,8
7) Износ инструмента . .	140,8	135,4	139,6
8) Затраты на ремонт . .	195,6	202,1	233,1
9) Итого . . .	3592,9	4484,7	3120,3
10) Без стоимости основных материалов . . .	1208,6	864,7	1336,1

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On the Economic Analysis of the Overall Automation of Production

a) stamping with subsequent rolling out; b) making the ring-shaped blank from turned and annealed pipe stock with full lathe working; c) automated stamping process on the automatic "Vagner" line; 3) basic material; 4) wages of the main production workers; 5) amortisation of equipment; 6) power costs; 7) tool wear; 8) repair costs; 9) total; 10) *without costs for basic materials.* An analysis of the cost elements of automated production processes shows that, if an average cost level for decisive operations can be attained, the main operation costs of the whole automatic line can be reduced by 40%, which means a considerable lowering of the cost price. To reach this goal, it is necessary to completely change the production of blanks, to increase the coefficient of metal utilization to a minimum of 0.57 - 0.71 and to reduce the expenses for pressing and lathe operations. Therefore, pressing processes should be automated, and lathe operations reduced to a minimum, so that blanks with grinding allowances should be produced. It is also necessary to increase the productivity of equipment for several operations, or to replace inefficient equipment by automatics of modern design. An insufficient productivity can partly be compensated by reducing the power consumption of the machines or using more durable tools and spindles. As a result

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S/117/61/000/001/011/013
A004/A001

On the Economic Analysis of the Overall Automation of Production

of his analysis, the author concludes that any overall automation can be effective only under the condition that on each machining stage the most efficient economic version of tooling is employed and that the most expedient utilization of material and labor resources are ensured on each preceding and subsequent operation stage. There is 1 table.

Card 4/4

SPIRIDONOV, F.M., kand. veterinarnykh nauk; SHUBKINA, L.I., kand. veterinarnykh nauk

Infectious atrophic rhinitis in swine. Veterinariia 36 no.9:38-39 S '59. (MIRA 12:12)

(Swine--Diseases and pests)

SHUBKO, V. M., N. I. BORTSOVA, P. M. CHULKOV, B. V. KURCHATOV, V. I. NOVGORODTSEVA and V. A. PCHELIN

"Research on the Content of Radioactive Strontium in the Atmosphere, Soil, Food Products, and Human Bones."

Soviet Scientists Concerning the Dangers of Nuclear-Weapon Tests, p. 62, Publishing House of the Main Administration for the Use of Atomic Power, Council of Ministers USSR, Moscow 1959.

BARANOV, S.A.; POLEVOY, R.M.; RODIONOV, Yu.F.; SHISHKIN, G.V.; SHUBKO, V.M.

[Radioactive decay of Th^{231}] Izuchenie radioaktivnogo raspada Th^{231}. Moskva, In-t atomnoi energii AN SSSR, 1960. 22 p. (MIRA 17:1)

Shubko, V. (Y)

S/048/60/024/03/02/019
B006/B014

AUTHORS: Baranov, S. A., Polevoy, R. M., Zolotov, Yu. P., Shi[illegible] G. V., Shubko, V. M.

TITLE: Investigation of the Radioactive Decay of Th^{231}

PERIODICAL: Izvestiya Akademii nauk SSSR. Seriya fizicheskaya, 1960, Vol. 24, No. 3, pp. 261-271

TEXT: The article under review was read at the Ninth All-Union Conference on Nuclear Spectroscopy (Khar'kov, January 26 - February 2, 1959). Th^{231} is a well-known β-emitter with a half-life of 25.6 hours; numerous investigations of the level scheme have already been conducted. The authors were stimulated to further investigations by the fact that a level scheme deviating from Ref. 5 had been published in Ref. 4. The sample was obtained by bombarding Th^{230} with slow neutrons in the RFT reactor. The subsequent chemical treatment of the sample is described in the introduction. Numerous details concerning measurements of the electron spectrum are reproduced in the 2nd section. Fig. 1 shows the most

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interesting part of the electron spectrum in the region of from 150 to 1,100 gauss.cm. γ-Spectrometric measurements are described in the 3rd section. Fig. 2 shows the spectrum of X-ray and soft γ-radiation of Pa^{231} taken by means of proportional counters that were filled with heavy gases. Measurements showed among other things that the most intense γ-rays with 25.6 and 84.1 kev do not occur in a cascade, that the 26-kev quanta coincide with the 58-, 95-, 145-, 163-, and 218-kev quanta, but not the 250-kev quanta with the more intense 26- and 84-kev quanta. The 4th section deals with the determination of the multipolarities of certain γ-transitions, and the 5th section with details of the Pa^{231} level scheme. The bulky numerical material yielded by the investigations is clearly compiled in tables. Table 1, which extends over 3.5 pages, offers an interpretation of the electron lines occurring in the $Th^{231} \xrightarrow{\beta^-} Pa^{231}$ decay, Table 2 supplies data of the energy of γ-transitions of the Pa^{231} nucleus, and Table 3 provides the absolute and relative conversion coefficients for the γ-rays of Pa^{231}. Fig. 3 shows the level scheme as it proceeds from results of measurements. This scheme agrees with that obtained by Nilsson from at least the qualitative side,

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but is not in agreement with those published in Refs. 4 and 5. The authors finally thank P. E. Nemirovskiy for discussing results. There are 3 figures, 3 tables, and 16 references, 3 of which are Soviet.

Card 3/3

43464

S/089/62/013/006/009/027
B102/B186

AUTHORS: Kurchatov, B. V., Lavrenchik, V. N., Shubko, V. M.

TITLE: Radioactive tungsten in the atmosphere

PERIODICAL: Atomnaya energiya, v. 13, no. 6, 1962, 576 - 580

TEXT: In the months following July 1958 a new activity of about 60 kev was detected in gamma spectrograms of air samples from the western part of the USSR. The fact that Ce^{141}, Ce^{144}, Ru^{103}, Ru^{106}, Zr^{95}, and Nb^{95} were present in the samples and contributed to this peak made it difficult to identify. From a radiochemical analysis it was possible to obtain a preparation whose specific activity corresponded to β-radiation of W^{185}. The isotope composition of the radiotungsten was determined by measuring the halflives of β and γ-active substances and the radiation energies. Np^{237}, which has an intense peak at 59.7 kev, was taken as reference emitter. Thus the energy was found to be (58±1) kev and the halflife was 140 days, corresponding to W^{181} which goes over by radiative electron

Card 1/2

capture into Ta^{181}. The isotopes W^{181} and W^{185} are most probably produced in (n,2n) reactions from W^{182} and W^{186}, having a cross section greater than that of (n,γ) reactions by a factor of 10^3, which also are possible. If the growth in β and γ-activities between July and November are confronted with the natural W isotope composition and the halflife data it can be concluded that the atmospheric tungsten was caused by the US thermonuclear test series performed on the Marshall islands during May - July 1958. The geographical and seasonal fluctuations of the tungsten atmospheric pollution were studied in detail. In contrast to Sr^{90} which remained almost constant between July and November 1958, the W^{185} content increased steadily from 0.12 to 6.8 mCu/km^2 (determined in the rainwater). On W^{181} a concentration maximum was also observed in spring 1959 which is attributed to meteorological causes. The latitude dependence of the atmospheric tungsten activity measured in December 1958 shows an Atlantic peak between 20 and 30° n.l. and measured in November 1959 a Pacific peak at about 40° n.l. There are 2 figures and 3 tables.

SUBMITTED: April 18, 1962
Card 2/2

SHUBKO, V. M.

S/824/62/000/000/002/004
B183/B102

AUTHORS: Borisova, N. I., Kurchatov, B. V., Novgorodtseva, V. I., Pchelin, V. A., Chistyakov, L. V., Shubko, V. M.

TITLE: The radiochemical study of Am^{241} fission by neutrons of various energies

SOURCE: Fizika deleniya atomnykh yader. Ed. by N. A. Perfilov and V. P. Eysmont. Moscow, Gosatomizdat, 1962, 48 - 53

TEXT: Even-odd nuclei can be fissioned at different resonance energies according to which of the two possible spin states is present. This effect was observed in the neutron-induced fission of Am^{241}. Because of the relatively low fission cross section of Am^{241} the study was made with a filtered beam of rays, despite certain disadvantages of this as compared with monochromatic neutron beams. The irradiation was done in the MPT (IRT) reactor under a neutron flux of $5 \cdot 10^{12}$ neutrons/cm^2·sec lasting one hour without and several hours with the filter. The filters were of aluminum-alloyed gadolinium, cadmium, rhodium, and erbium oxides. The

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S/824/62/000/000/002/004
B183/B102

The radiochemical study of...

Am^{241} was extracted from plutonium, thoroughly purified and then electrodeposited upon platinum disks to give a thickness 0.13 - 0.5 mg/cm^2. The fission products emitted from this layer on irradiation were collected on filter paper and subjected to radiochemical analysis. The counting was made on a methane flow counter with an approximate 4π-geometry. The yield of the different products, as referred to the yield in Mo^{99}, increases with increasing neutron energy when the yield of Ba^{140} is neglected. Comparative calculations showed that within experimental limits of error thermal neutrons and neutrons of the first resonance cause the same mass yields in the fission of Am^{241}. The effect is too weak to allow of estimates in the regions of the second and third resonances. There are 1 figure and 2 tables.

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KURCHATOV, B.V.; LAVRENCHIK, V.N.; SHUEKO, V.M.

Radioactive tungsten in the atmosphere. Atom.energ. 13 no.6: 576-580 D '62. (MIRA 15:12)
(Tungsten—Isotopes)

"The Mechanism of Immunity Against Virus; Communication I: The Role of the Leucocytes in Immunity to Viruses Infectious Herpes and Herpes-Encephalitis," ZHMEI, XVIII, 4, 517, 1937

SHUBLADZE, A. K. SOLITERMAN, P. L.; SHTERNGOLD, Ye. Ya.;

Central Inst. Epidemiology and Microbiology of NKZDRAVA (People's Commissariate Public Health), (-1944-).

Uzbek Inst. Epidemiology and Microbiology, (-1944-).

"The sera against typhus exanthematicus."

Zhur. Mikrobiol., Epidemiol., i Immunobiol., No. 1-2, 1944.

SHUBLADZE, A.K. and KALABUKHOV, N.I.

On the Problem of the Focal Character of Spring-and summer (Tick(Encephalitis. Med. Parazitologiya Vol. 15, (1946), 2, 68-75.

SO: Translation-2524467, 30 Apr 1954.

SHUBLADZE, A. K.

SHUBLADZE, A. K., MARGULIS, M. S., and GAYDAMOVICH, S. Ya. "Experimental acute disseminated encephalitis in monkeys, caused by the virus of primary acute encephalitis of humans", Voprosy med. virusologii, Issue 1, 1948, p. 284-301.

SO: U-3042, 11 March 53, (Letopis 'nykh Statey, No. 10, 1949).

SHUBLADZE, A. K.

A short course in practical vireolog. Moskva, Medgiz, 1949. 271 p.
At head of title: A. K. Shubladze i S. IA. Gaidamovich.

SHUBLADZE, A. K.

"Results of the specific vaccinotherapy of patients with acute disseminated encephalomyelitis and multiple sclerosis", authors: M. S. MARGULIS, A. K. SHUBLADZE, V. D. SOLOV'YEV, and S. Ya. GAYDAMOVICH, Voprosy med. virusologii, Issue 2, 1949, p. 75-88, - Bibliog: 7 items.

SO: U-3042, 11 March 53, (Letopis 'nykh Statey, No. 10, 1949).

SHUBLADZE, A. K. and SELIKOV, . A.

"On the Virus of Epidemic Parotitis", (Abstract of a Paper Delivered at the Second Scientific Session of the Institute of Virusology, Academy of Medical Sciences USSR), Zhur Mikrobiol, Epidemiol i Immunobiol, No11, pp 37-45, 1950.

USSR/Medicine - Virus Diseases Mar/Apr 51

"Pathomorphological Analysis and Pathogenesis of Experimental Chronic Encephalomyelitis," Prof M. S. Margulis (Deceased), A. K. Shubladze, O. G. Andzhaparidze, Clinic Nervous Diseases, State Cen Inst for Advanced Trng of Physicians, and Hosp imeni S. P. Botkin.

"Nevropatol i Psikhiat" Vol XX, No 2, pp 47-54

Found that disease of young chickens produced by intracerebral injection of virus of acute human encephalomyelitis resembles human disease and is typical for virus in question. Observed typical

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changes in the peripheral nervous system (demyelinization, fragmentation, degeneration, and falling out of nerve fibers); productive proliferation of walls of blood vessels in brain, heart, and lungs; demyelinization of nerve fibers of the spine and occasionally of the brain. Describes in detail other changes produced by the disease and discusses its pathogenesis.

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SHUBLADZE, A. K.

SHUBLADZE, A. K.; GRIBANOVICH, S. Ia.;

"A Short Course in Practical Virusology."Part I. Methods of Virusological Research. Part II. Brief Data on Specific Virusology.

U-1618 (9 Jan 52)

SHUBLADZE, A. K.

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USSR/Medicine - Virus Diseases Jan 53

"Some Properties of the Virus of Epidemic Parotitis," A. K. Shubladze, M. A. Selimov, Inst of Virology imeni D. I. Ivanovskiy

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"Zhur Mikrobiol, Epidemiol, i Immunobiol" No 1, pp 48-52

The reactions of complement fixation and inhibition of hemagglutination are useful aids in the diagnosis of epidemic parotitis, particularly when no symptoms are exhibited. Mice can be infected with the disease but show no symptoms. In regard to hemagglutination, epidemic parotitis virus from guinea pigs (I) is

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[illegible] virus A (II). The erythrocytes of horses, ponies, rams, bulls, and cats are readily agglutinated at 22° by I, but not by II. The method of adsorption of the virus of epidemic parotitis on erythrocytes followed by elution is suitable for purification and concn of the virus. Bull erythrocytes are best for this purpose.

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