"APPROVED FOR RELEASE: 07/19/2001 CIA-RDP86-00513R001137020014-2

KOLYADKO, T.M.; NIKITINA, N.S.

Bibliography on the protection of pulse crops. Zashch.rast.ot vred.i bol. 7 no.6:60-61 Je '62. (MIRA 15:12)
(Bibliography—Legumes—Diseases and pests)

APPROVED FOR RELEASE: 07/19/2001 CIA-RDP86-00513R001137020014-2"

"APPROVED FOR RELEASE: 07/19/2001 CIA-RDP86-00513R001137020014-2

KOLYADKO, T.M.; NIKITINA, M.S.

Literature on the protection of pulse crops (to be continued). Zashch. rast. ot vred. i bol. 7 no.10:62 O '62. (MIRA 16:6)

(Bibliography—Legumes—Diseases and pests)

APPROVED FOR RELEASE: 07/19/2001 CIA-RDP86-00513R001137020014-2"

"APPROVED FOR RELEASE: 07/19/2001 CIA-RDP86-00513R001137020014-2

KOLYADKO, T.M.; NIKITINA, N.S.

Literature on the protection of legumes. Zashch. rast. ot vred. i bol. 7 no.9:63 S '62. (MIRA 16:8)

(Bibliography--Peas--Diseases and pests)

APPROVED FOR RELEASE: 07/19/2001 CIA-RDP86-00513R001137020014-2"

"APPROVED FOR RELEASE: 07/19/2001 CIA-RDP86-00513R001137020014-2

FRO[illegible]V, A.F., [illegible]VIKOVA, M.M., USTAVSHCHIKOV, B.F., NIKITINA, N.S.

[illegible]-liquid equilibrium in the system methyl methacrylate - methyl alcohol - water. Izv vys.ucheb.zav.; khim.i khim.tekh. 8 no.4:570-573 '65. (MIRA 18:11)

1. Yaroslavskiy tekhnologicheskiy institut, kafedra tekhnologii [illegible]nogo organicheskogo sinteza i sinteticheskogo kauchuka.

APPROVED FOR RELEASE: 07/19/2001 CIA-RDP86-00513R001137020014-2"

"APPROVED FOR RELEASE: 07/19/2001 CIA-RDP86-00513R001137020014-2

NIKITINA, N.V.

LAZAREVA, L.Ye.; NIKITINA, N.V.

Photofission. Atom.energ.supplement no.1:189-214 '57. (MIRA 10:10)
(Nuclear fission)

APPROVED FOR RELEASE: 07/19/2001 CIA-RDP86-00513R001137020014-2"

"APPROVED FOR RELEASE: 07/19/2001 CIA-RDP86-00513R001137020014-2

21(0) PHASE I BOOK EXPLOITATION SOV/2021

International Conference on the Peaceful Uses of Atomic Energy, 2d., Geneva, 1958

Doklady sovetskikh ukhenykh; yadernaya fizika (Reports of Soviet Scientists; Nuclear Physics) Moscow, Atomizdat, 1959. 552 p. (Series: Its: Trudy, Vol. 1) 8,000 copies printed.

Eds. (Title page): A.I. Alikhanov, Academician; V.I. Veksler, Academician; and E.A. Vlasov, Candidate of Physical and Mathematical Sciences; Ed. of this volume: S.I. Brunov and B.P. Zaretskiy, Candidates of Physical and Mathematical Sciences; Ed. (Inside book): G.L. Shulyak; Tech. Ed.: Ye.I. Khaal'.

PURPOSE: This collection of articles is intended for scientific research workers and other persons interested in nuclear physics. The volume contains 43 papers presented by Soviet Scientists at the Second Conference on Peaceful Uses of Atomic Energy, held in Geneva in September 1958.

COVERAGE: It is divided into two parts. Part I contains 17 papers dealing with plasma physics and controlled thermonuclear reactions, and Part II contains 26 papers on nuclear physics, including problems of particle acceleration and of cosmic ray physics. The first paper by L.A. Artsimovich presents a review of Soviet work on controlled thermonuclear reactions. The remaining papers in Part I deal with particular problems in this field.

The papers in Part II deal in detail with various problems in nuclear physics, such as the fission of heavy atoms and their isotopes, and with the study of cosmic radiation by means of artificial earth satellites and rockets, described in a paper by S.N. Vernov. The Russian-language edition of the proceedings of the conference is published in 16 volumes. The first 6 volumes contain all the papers presented by Soviet scientists as follows: Volume (1), Yadernaya fizika (Nuclear Physics); Volume (2), Yadernyye reaktory i yadernaya energetika (Nuclear Reactor and Nuclear Power); Volume (3), Yadernye goryuchiye metally (Nuclear Fuel and Reactor Metals), Volume (4), Khimiya radioelementov i radiatsionnykh prevrashcheniy (Chemistry of Radioelements and of Radiation Transformations); Volume 5, Radiobiologiya i radiatsionnaya meditsina (Radiobiology and Radiation Medicine); Volume (6) Poluchaniye i primeneniye izotopov (Production and Use of Isotopes). The other 10 volumes contain selected papers presented at the Conference by non-Soviet scientists. In the present volume discrepancies between the English and Russian language edition of the proceedings have been noted in three articles: where the texts are not identical; viz; Andrienov, et al, "High Current Pulsed Discharge"; Akhiyezer, et al, "High Frequency Plasma Oscillation"; and Bogolyubov, "Investigations of the Many-body Problem". The serial numbers of reports 2302 and 2304 are reversed in the English edition. Report 2211, by Zimelnikov, et al, is numbered 2536 in the English edition.

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Zhuravlev, B.V., L.P. Marchuk, I.A. Tvistiy, V.I. Shrishak, A.N. Korolev, Ye.V. Gaffman, G.N. Lovchikova, Ye.A. Koltypin, and G.P. Ya'kov, Fast Neutron Scattering and Capture by Atomic Nuclei (Report 2050) 330

Gryllikova, E.T. On the Asymmetry of Nuclear Fission (Report 2474) 346
Personalities mentioned include E.T. Belyaev, A.B. Migdal, and Z.V. Novikova.

Gryllikova, E.T. Ionization Energy of Fragments in Nuclear Fission (Report 2473) 354
Personalities mentioned include V.N. Galitskiy and V.N. Shrutinskiy.

Ena', A.I., E.N. Kaliberda, L.Ye. Lazarenko, E.V. Kiritina, and V.A. Petrzhak, Angular Distribution of Fission Fragments in the Photofission of Uranium-238 (Report 2057) 360

Ena', A.I., Ye.A. Smorodinskiy. Photofission Cross Section Near the Threshold of Reaction (Report 2472) 369

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APPROVED FOR RELEASE: 07/19/2001 CIA-RDP86-00513R001137020014-2"

"APPROVED FOR RELEASE: 07/19/2001 CIA-RDP86-00513R001137020014-2

VASIN, L.V., inzh.; AKHUN, B.N., inzh.; IVANCHENKO, N.N., kand. tekhn. nauk; KOLLEROV, L.K., kand. tekhn.nauk; NIKITINA, N.V., inzh.; SOKOLOV, S.S., kand. tekhn. nauk; FODIN, A.A., red.; YURKEVICH, M.P., red. izd-va; PETERSON, M.M., tekhn. red.; SPERANSKAYA, O.V., tekhn. red.

[Diesel and gas engines; catalog-handbook] Dizeli i gazovye dvigateli; katalog-spravochnik. Pod red. A.A.Fadina. Moskva, Mashgiz, 1961. 279 p. (MIRA 14:12)

1. Leningrad. TSentral'nyy nauchno-issledovatel'skiy dizel'nyy institut.

(Gas and oil engines)

APPROVED FOR RELEASE: 07/19/2001 CIA-RDP86-00513R001137020014-2"

"APPROVED FOR RELEASE: 07/19/2001 CIA-RDP86-00513R001137020014-2

NIKITINA, N.V., Cand Vet Sci —(diss) "A Study of the acaricid effect of chlorten, polychlorinen, and polychlorophen on ticks Ixodes ricinus—carriers of babesiosis of cattle." Leningrad, 1958. 19 pp, (Len Vet Inst of the Ministry of Agriculture USSR). 150 copies. (KL, 37-58, 137).

APPROVED FOR RELEASE: 07/19/2001 CIA-RDP86-00513R001137020014-2"

"APPROVED FOR RELEASE: 07/19/2001 CIA-RDP86-00513R001137020014-2

NIKITINA, N.V.; STUDNITSIN, A.A.; SHURIN, V.P.

Problems in leprosy control in the U.S.S.R. Vest.derm. i ven. 34 no.11:3-6 N '60. (MIRA 13:12)
(LEPROSY prev. & control)

APPROVED FOR RELEASE: 07/19/2001 CIA-RDP86-00513R001137020014-2"

"APPROVED FOR RELEASE: 07/19/2001 CIA-RDP86-00513R001137020014-2

L 57001-65 EWP(e)/EWT(m)/T/EWP(t)/EWP(k)/EWP(z)/EWP(b) Pf-4 JD

ACCESSION NR: AR5014253 UR/0276/65/000/005/B040/B041

621.762.5.001.5:621.81

AUTHOR: Nikitina, N.V.

TITLE: Some problems in the application of high-frequency induction heating for the sintering of powder-metal products

SOURCE: Ref. zh. Tekhnologiya mashinostroyeniya. Svodnyy tom, Abs. 5B383

CITED SOURCE: Tr. N.-i. in-ta tekhnol. avtomob. prom-sti, vyp. 13, 1964, 41-45

TOPIC TAGS: induction heating, powder metal sintering, powder metallurgy

ABSTRACT: Conditions were studied for the application of high-frequency induction heating for sintering powder-metal products for the purpose of speeding-up this process and for increasing its productivity. The methods of study are described. Electric parameters and sintering media were determined. Comparative tests were carried out. Rings made from the same batch, but sintered in electric resistance furnaces, were used as a standard. Tests showed that powder-metal piston rings sintered by high-frequency currents decreased the wear of the ring-cylinder set, as compared with rings sintered by the usual heating. The sintering

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L 57001-65

ACCESSION NR: AR5014253

of rings with high-frequency currents is carried out in a pilot shop for powder-metal piston rings at the Michurin Factory im. Lenin. Orig. art. has: 6 figures, and 2 tables.

ENCL: 00 SUB CODE: MM

Card 2/2

APPROVED FOR RELEASE: 07/19/2001 CIA-RDP86-00513R001137020014-2"

"APPROVED FOR RELEASE: 07/19/2001 CIA-RDP86-00513R001137020014-2

S/081/62/000/001/041/067
B168/B101

N.3700

AUTHORS: Khigerovich, M. I., Myshalov, Ye. G., Nikitina, N. V.

TITLE: Investigation into the processes of cement hardening by the electrical conductivity method

PERIODICAL: Referativnyy zhurnal. Khimiya, no. 1, 1962, 360, abstract 1K281 (Sb. Mosk. inzh.-stroit. in-t, no. 18, 1960, 55-63)

TEXT: The processes of setting and initial hardening of cement with a hydrophobic plasticizing additive, oxidized petrolatum, have been under investigation. The electrical resistance of 1:3 and 1:5 cement mortars was measured by means of a Wheatstone bridge with brass (instead of platinum) electrodes and containers of organic glass. At first the electrical conductivity of the solutions increased, but after 4-10 hours it began to decrease owing to the increase in the concentration of ions in the water during the initial hardening period and to the subsequent gradual binding of the liquid phase. Active fresh cements show the highest absolute values for specific electrical conductivity. The electrical conductivity of old cements is approximately 1/2 as high. The

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"APPROVED FOR RELEASE: 07/19/2001 CIA-RDP86-00513R001137020014-2

NIKITINA, N. V.

Cand Tech Sci - (diss) "Study of water-proofing of carbonate plastifier in construction solutions." Moscow, 1961. 12 pp; (Academy of Construction and Architecture USSR, All-Union Scientific Research Inst of New Building Materials); number of copies not given;price not given; (KL, 7-61 sup, 242)

APPROVED FOR RELEASE: 07/19/2001 CIA-RDP86-00513R001137020014-2"

"APPROVED FOR RELEASE: 07/19/2001 CIA-RDP86-00513R001137020014-2

NIKITINA, N.V., inzh.

Improving the properties of concrete. Bet. i zhel.-bet. no.5:237-239 My '62. (MIRA 15:6)

(Concrete)

APPROVED FOR RELEASE: 07/19/2001 CIA-RDP86-00513R001137020014-2"

"APPROVED FOR RELEASE: 07/19/2001 CIA-RDP86-00513R001137020014-2

DRABKIN, A.Ye.; ZHUKOVA, N.N. [deceased]; Prinimali uchastiy
GOLUBINSKAYA, M.A.; NIKITINA, N.V.

Removing hydrogen sulfide from gas with arsenite-arsenate solutions. Trudy VNIIT no.12:189-197 '63. (MIRA 18:11)

APPROVED FOR RELEASE: 07/19/2001 CIA-RDP86-00513R001137020014-2"

"APPROVED FOR RELEASE: 07/19/2001 CIA-RDP86-00513R001137020014-2

NIKITINA, N.V.; VOLOGDIN, V.V.

Cintering metal-ceramic articles with high-frequency currents. Avt. prom. 29 no.2:39-41 F '63. (MIRA 16:2)

1. Nauchno-issledovatel'skiy institut avtomobil'noy promyshlennosti i Nauchno-issledovatel'skiy institut tokov vysokoy chastoty.
(Ceramic metals)

APPROVED FOR RELEASE: 07/19/2001 CIA-RDP86-00513R001137020014-2"

"APPROVED FOR RELEASE: 07/19/2001 CIA-RDP86-00513R001137020014-2

NIKITINA, N.V.

Cermet piston rings. Avt. prom. 30 no.11:39-40 N '64 (MIRA 18:2)

1. Nauchno-issledovatel'skiy institut tekhnologii avtomobil'noy promyshlennosti.

APPROVED FOR RELEASE: 07/19/2001 CIA-RDP86-00513R001137020014-2"

"APPROVED FOR RELEASE: 07/19/2001 CIA-RDP86-00513R001137020014-2

[illegible]V, C.[illegible], kand. tekhn. nauk; [illegible]KI[illegible]A, N.V., inzh.

Manufacturing cermet piston rings. Vest. mashinostr. 44 no.[illegible] My '64. (MIRA 1[illegible])

APPROVED FOR RELEASE: 07/19/2001 CIA-RDP86-00513R001137020014-2"

"APPROVED FOR RELEASE: 07/19/2001 CIA-RDP86-00513R001137020014-2

DUDAREV, Ye.F.; PANIN, V.Ye.; NIKITINA, N.V.

Temperature dependence of impurity concentration in Suzuki atmospheres in a number of solid solutions. Fiz. met. i metalloved. 17 no.6:924-930 Je '64. (MIRA 17:8)

1. Sibirskiy fiziko-tekhnicheskiy institut.

APPROVED FOR RELEASE: 07/19/2001 CIA-RDP86-00513R001137020014-2"

"APPROVED FOR RELEASE: 07/19/2001 CIA-RDP86-00513R001137020014-2

SINELIN[illegible], [illegible].S.; [illegible], N.N. [deceased]; NIKITIN[illegible], [illegible].

[illegible]rning the reactivity of peat charcoal. Trudy [illegible] no.13: 138-143 '64. (MIRA 18:2)

APPROVED FOR RELEASE: 07/19/2001 CIA-RDP86-00513R001137020014-2"

"APPROVED FOR RELEASE: 07/19/2001 CIA-RDP86-00513R001137020014-2

PAVLOV, S.T.; STUDNITSIN, A.A.; TURANOV, N.M.; NIKITINA, N.V.

Current tasks of dermatovenerological scientific societies and institutions. Vest. derm. i ven. 38 no.3:3-9 Mr '64.

(MIRA 18:4)

APPROVED FOR RELEASE: 07/19/2001 CIA-RDP86-00513R001137020014-2"

"APPROVED FOR RELEASE: 07/19/2001 CIA-RDP86-00513R001137020014-2

NIKITINA, O.A.

NIKITINA, O.A.; VOLKOVA, V.P.

Operation of a "Sharpant'e" type carbonizing plant. Tekst.prom. 17 no.12:43-46 '57. (MIRA 11:1)

1.Zaveduyushchiy laboratoriyey Krasnodarskogo kombinata (for Nikitina). 2.Master kresheniya volokna i karbonizatsii Krasnodarskogo kombinata (for Volkova)
(Woolen and worsted manufacture)

APPROVED FOR RELEASE: 07/19/2001 CIA-RDP86-00513R001137020014-2"

"APPROVED FOR RELEASE: 07/19/2001 CIA-RDP86-00513R001137020014-2

NIKITINA, O.A.

New "Progress" detergent. Tekst. prom. 21 no.1:65-66 Ja '61. (MIRA 14:3)

1. Zaveduyushchiy laboratoriyey Krasnodarskogo kamvol'no-sukonnogo kombinata.
(Cleaning compounds)

APPROVED FOR RELEASE: 07/19/2001 CIA-RDP86-00513R001137020014-2"

"APPROVED FOR RELEASE: 07/19/2001 CIA-RDP86-00513R001137020014-2

NIKITINA, O.A.

Effect of soaking on the shrinkage of worsted fabrics. Tekst. prom. 21 no.2:54-55 Ja '61. (MIRA 14:3)

1. Zaveduyushchiy laboratoriyey Krasnodarskogo kamvol'no-sukonnogo kombinata.

(Woolen and worsted manufacture)

APPROVED FOR RELEASE: 07/19/2001 CIA-RDP86-00513R001137020014-2"

"APPROVED FOR RELEASE: 07/19/2001 CIA-RDP86-00513R001137020014-2

NIKITINA, Oktyabrina Andreyevna; MIKHEYEV, N.I., red.; YASHEN'KINA, Ye.A., tekhn. red.

[Protection of nonferrous metals from corrosion] Zashchita tsvetnykh metallov ot korrozii. Kuibyshev, Kuibyshevskoe knizhnoe izd-vo, 1960. 76 p. (MIRA 14:6)
(Nonferrous metals—Corrosion) (Protective coatings)

APPROVED FOR RELEASE: 07/19/2001 CIA-RDP86-00513R001137020014-2"

"APPROVED FOR RELEASE: 07/19/2001 CIA-RDP86-00513R001137020014-2

SEMAL'GAUZEN, Ivan Ivanovich, akademik; NIKITINA, O.G., ved. red.

[Origin of terrestrial vertebrates. Proiskhozhdenie nazemnykh pozvonochnykh. Moskva, Nauka, 1964. 270 p. (MIRA 17:9)

APPROVED FOR RELEASE: 07/19/2001 CIA-RDP86-00513R001137020014-2"

"APPROVED FOR RELEASE: 07/19/2001 CIA-RDP86-00513R001137020014-2

YEGOROV, Oleg Vasil'yevich; TAVROVSKIY, V.A., otv. red.;
NIKITINA, O.G., red.

[Wild ungulates of Yakutia] Dikie kopytnye Iakutii.
Moskva, Nauka, 1965. 257 p. (MIRA 19:1)

APPROVED FOR RELEASE: 07/19/2001 CIA-RDP86-00513R001137020014-2"

"APPROVED FOR RELEASE: 07/19/2001 CIA-RDP86-00513R001137020014-2

15

*249. **Spectrographic Determination of the Content of Arsenic in Steel.** (In Russian.) O. I. Nikitina. *Factory Laboratory* (U.S.S.R.), v. 13, July 1947, p. 885.

Gives details of the method used including typical results and a chart for determining the As concentration from the spectral measurements.

METALLURGICAL LITERATURE CLASSIFICATION

APPROVED FOR RELEASE: 07/19/2001 CIA-RDP86-00513R001137020014-2"

"APPROVED FOR RELEASE: 07/19/2001 CIA-RDP86-00513R001137020014-2

USSR/Metals Jul 49
Slags
Spectral Analysis

"Concerning the Problem of Spectral Analysis of Principal Open-Hearth Slags," O. I. Nikitina, Ukrainian Sci Res Inst of Metals, 2½ pp

"Zavod Lab" No 7

In method described, determined relative intensity of spectral lines by photographic method with unbiased photometric evaluation. Selected spectral lines in 2,700-3,200 Å [redacted] where factor of contrast remains practically [redacted]

62/49T89

USSR/Metals (Contd) Jul 49

constant. Details method of analysis. Checked accuracy by taking 11 photographs of one test. Mean error varied from + 3.6% for CaO (3159 Å) to + 1.9% for FeO. Duration of test was 22-28 min depending on number of compounds to be determined. Table shows comparative results of chemical and spectrographic analysis.

[redacted]

62/49T89

APPROVED FOR RELEASE: 07/19/2001 CIA-RDP86-00513R001137020014-2"

"APPROVED FOR RELEASE: 07/19/2001 CIA-RDP86-00513R001137020014-2

15

Spectroscopic Analysis of Basic Openhearth Slags. (In Russian.) O. I. Nikitina. *Zavodskaya Laboratoriya* (Factory Laboratory) v. 15, July 1949, p. 855-857.

Describes method for the above. Lines in the 2700-3200 A region were used. Specific conditions for determination of CaO, SiO, MnO, and FeO are indicated.

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION

APPROVED FOR RELEASE: 07/19/2001 CIA-RDP86-00513R001137020014-2"

"APPROVED FOR RELEASE: 07/19/2001 CIA-RDP86-00513R001137020014-2

Results of the work of the Ukrainian Institute of Metals regarding technical and methodical help to spectral laboratories of the southern plants. O. I. Nikitina. *Izvest Akad. Nauk S.S.S.R., Ser. Fiz.* 14, 606-10(1950). (1) Low alloyed steels were analyzed for Si, Mn, Cr, Ni in an arc, arc discharge, in a high-voltage spark, in a high-voltage spark with increased capacitance and in a spark superposed on an arc. Working curves are given, and the av. errors indicated. (2) Cast Fe has been analyzed for C, Si, Mn (av. quantities C 3.3, Mn 0.84, Si 2.2%). Working curves and errors are indicated for a spark discharge. (3) It is shown that Cr (4.08-25.79%), V (0.06-1.86%), W (2.71-18.56%) do not mutually influence one another in the examn. of highly alloyed steels. S. Pakswer

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"APPROVED FOR RELEASE: 07/19/2001 CIA-RDP86-00513R001137020014-2

NIKITINA, O. I.

USSR/Chemistry - Spectral analysis

Card 1/1 Pub. 43 - 69/97

Authors : Nikitina, O. I.

Title : Spectral analysis of slag

Periodical : Izv. AN SSSR. Ser. fiz. 18/2, 285-286, Mar-Apr 1954

Abstract : A method was developed for spectrographic determination of the components of open-hearth slag according to one single spectrogram. In order to eliminate the effect of third elements the method calls for the use of diluted solutions or diluted finely dispersed solid mixtures. Some results obtained are described.

Institution : The Ukrainian Scientific Research Institute of Metals

Submitted : .....

APPROVED FOR RELEASE: 07/19/2001 CIA-RDP86-00513R001137020014-2"

"APPROVED FOR RELEASE: 07/19/2001 CIA-RDP86-00513R001137020014-2

NIKITINA, O. I.

USSR.

18390* Spectrochemical Methods for the Analysis of Open-Hearth Slags for All Basic Components. Spektrokhimicheskie metody analiza martenovskikh shlakov na vse osnovnye komponenty. (Russian.) O. I. Nikitina. *Izvestiia Akademii Nauk SSSR, Seriia Fizicheskaia*, v. 19, no. 1, Jan.-Feb. 1955, p. 94-96.

Analysis of solid and dissolved slags. Tables.

APPROVED FOR RELEASE: 07/19/2001 CIA-RDP86-00513R001137020014-2"

"APPROVED FOR RELEASE: 07/19/2001 CIA-RDP86-00513R001137020014-2

NIKITINA, O. I.

K-7

Category : USSR/Optics - Optical methods of analysis. Instruments

Abs Jour : Ref Zhur - Fizika, No 1, 1957 No 2521

Author : Nikitina, O.I.
Inst : Ukrainian Scientific Research Inst.of Metals, USSR
Title : Use of Spectral Method to Determine the Character of the Distribution of Arsenic in Steel.

Orig Pub : Izv. AN SSSR, ser. fiz., 1955, 19, No 2, 188-190

Abstract : Two versions of a spectral method were worked out for the determination of As in steel, suitable for the investigation of the distribution of As in small volumes. The work was performed with the ISP-22 spectrograph. In the first version, the spectrum is excited with an a-c arc produced by a PS-39 generator with attachment, the current being 1 amp. The analytic lines used are As 2288.12 A and Fe 2289.03 A. In the second version the spectrum is excited by a spark from an IG-2 generator (0.005 micromicrofarad, 0.55 millihenry; primary transformer current 0.8 -- 0.1 amp). The analytic lines were As 2288.12 A and Fe 2287.63 A.

The proposed method was applied to the investigation of the liquation of As in cast and hot-deformed steel.

Card : 1/2
Card : 2/2

APPROVED FOR RELEASE: 07/19/2001 CIA-RDP86-00513R001137020014-2"

"APPROVED FOR RELEASE: 07/19/2001 CIA-RDP86-00513R001137020014-2

NIKITINA, O.I.

USSR/Crystals. B-5

Abs Jour : Referat Zhur - Khimiya, No 6, 1957, 18299

Author : O.I. Nikitina, M.G. Sklyar, I.E. Yushkevich.
Inst : Ukrainian Scientific Research Institute of Metals.
Title : Study of Diffusion of Carbon and Arsenic in Technically Pure Iron and Steel by Spectral Method.

Orig Pub : Tr. Ukr. n.-i. in-ta metallov, 1956, vyp. 2, 318-332.

Abstract : No abstract.

Card 1/1 - 66 -

APPROVED FOR RELEASE: 07/19/2001 CIA-RDP86-00513R001137020014-2"

"APPROVED FOR RELEASE: 07/19/2001 CIA-RDP86-00513R001137020014-2

24(7) PHASE I BOOK EXPLOITATION SOV/1700

Lvov. Universitet

Materialy X Vsesoyuznogo soveshchaniya po spektroskopii, 1956. t. II: Atomnaya spektroskopiya (Materials of the 10th All-Union Conference on Spectroscopy, 1956. Vol 2: Atomic Spectroscopy) /Lvov/ Izd-vo L'vovskogo univ., 1958. 568 p. (Series: Its: Fizicheskiy sbornik, vyp.4(9)) 3,000 copies printed.

Additional Sponsoring Agency: Akademiya nauk SSSR. Komissiya po spektroskopii.

Editorial Board: G.S. Landsberg, Academician, (Resp. Ed.); B.S. Neporent, Doctor of Physical and Mathematical Sciences; I.L. Fabelinskiy, Doctor of Physical and Mathematical Sciences; V.A. Fabrikant, Doctor of Physical and Mathematical Sciences; V.G. Koritskiy, Candidate of Technical Sciences; S.M. Raynskiy, Candidate of Physical and Technical Sciences; L.K. Klimovskaya, Candidate of Physical and Mathematical Sciences; V.S. Miliyanchuk (Deceased), Doctor of Physical and Mathematical Sciences; A.Ye. Glauberman, Doctor of Physical and Mathematical Sciences; Ed.: S.L. Gazer; Tech. Ed.: T.V. Saranyuk.

PURPOSE: This book is intended for scientists and researchers in the field of spectroscopy, as well as for technical personnel using spectrum analysis in various industries.

COVERAGE: This volume contains 177 scientific and technical studies of atomic spectrography presented at the 10th All-Union Conference on Spectroscopy in 1956. The studies were carried out by members of scientific and technical institutes and include extensive bibliographies of Soviet and other sources. The studies cover many phases of spectroscopy: spectra of rare earths, electromagnetic radiation, physicochemical methods for controlling uranium production, physics and technology of gas discharge, optics and spectroscopy, abnormal dispersion in metal vapors, spectroscopy and the combustion theory, spectrum analysis of ores and minerals, photographic methods for quantitative spectrum analysis of metals and alloys, spectral determination of the hydrogen content of metals by means of isotopes, tables and atlases of spectral lines, spark spectrographic analysis, statistical study of variation in the parameters of calibration curves, determination of traces of metals, spectrum analysis in metallurgy, thermochemistry in metallurgy, and principles and practice of spectrochemical analysis.

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Materials of the 10th All-Union Conference (Cont.) SOV/1700

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APPROVED FOR RELEASE: 07/19/2001 CIA-RDP86-00513R001137020014-2"

"APPROVED FOR RELEASE: 07/19/2001 CIA-RDP86-00513R001137020014-2

NIKITINA, O.I., kand. khim. nauk; SKLYAR, M.G., inzh.; MIROSHNICHENKO, Z.N., inzh.

Spectrographic determination of small concentrations of constituent elements in steel. Trudy Ukr. nauch.-issl. inst. met. no.4:261-271 '58. (MIRA 12:3)

(Steel--Spectra)

APPROVED FOR RELEASE: 07/19/2001 CIA-RDP86-00513R001137020014-2"

"APPROVED FOR RELEASE: 07/19/2001 CIA-RDP86-00513R001137020014-2

NIKITINA, O.I., kand.khim.nauk; SKLYAR, M.G., inzh.; GOREVAYA, A.Ye., inzh.; IVANOVA, N.K.

Relation between the composition of the solid and gaseous phases in the spectrum analysis of iron-base alloys. Trudy Ukr.nauch.-issl.inst.met. no.5:273-286 '59. (MIRA 13:1)

(Iron alloys--Spectra) (Phase rule and equillibrium)

APPROVED FOR RELEASE: 07/19/2001 CIA-RDP86-00513R001137020014-2"

"APPROVED FOR RELEASE: 07/19/2001 CIA-RDP86-00513R001137020014-2

SOV/48-23-9-51/57

24(7)

AUTHOR: Nikitina, O. I.

TITLE: Results of Work on the Elaboration of Spectroscopic Methods for the Analysis of Blast-furnace Slag and Fluxing Agglomerates

PERIODICAL: Izvestiya Akademii nauk SSSR. Seriya fizicheskaya, 1959, Vol 23, Nr 9, pp 1159 - 1162 (USSR)

ABSTRACT: In recent years work concerning the investigation of working conditions in the analysis of open-hearth slags was carried out at the Ukrainskiy nauchno-issledovatel'skiy institut metallov (Ukrainian Scientific Research Institute for Metals) in collaboration with a number of metallurgical plants. It was the aim of this work to develop a method of spectroscopic analysis which is suited for the control of technological processes. The analysis methods for solutions, briquettes, and powders were investigated in the following two directions: 1) Attenuation of reciprocal influence of the components and reabsorption . 2) Selection of working conditions permitting the evaluation of the reciprocal influence exercised by components. 35 samples of blast-furnace slags and 25 samples of fluxing agglomerates were analyzed in the chemical laboratories of metallurgical plants and of the Institute, on which occasion

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Results of Work on the Elaboration of Spectroscopic Methods for the Analysis of Blast-furnace Slag and Fluxing Agglomerates SOV/48-23-9-51/57

the low degree of accuracy of chemical analysis manifested itself in the individual laboratories in connection with the determination of Al_2O_3, MgO, and MnO. 22 analytical line-pairs were investigated with respect to the interrelation of the difference of the line intensities ΔS and the inductivity and the spark gap. Sufficiently homologous line-pairs were found for the determination of Ca, Mg, and Mn and less homologous line-pairs were found for the determination of silicon and aluminum (Table 1). Next, the parameters of the spark-light source are given. An investigation of solubility shows that some slags and agglomerates are not completely dissolved in acids. A method is then given by means of which a complete dissolution of slag- and agglomerate powder was obtained. Comparative investigations carried out with arc- or spark-light sources with these solutions showed a considerably improved usefulness of the spark-light source (Table 3). The spectroscopic analysis of pulverized slags showed a separation of the curves for the slags from individual plants, whereas, in this case for agglomerates, a higher degree of

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Results of Work on the Elaboration of Spectroscopic Methods for the Analysis of Blast-furnace Slag and Fluxing Agglomerates SOV/48-23-9-51/57

dispersion of individual points was found in the diagram. Analyses carried out with briquettes on Cu- and graphite base shows an approach of results to such analyses as were carried out with solutions. The following persons took part in this work under the supervision of the author: L. L.,Gudyrina, L. R. Berdnikova, N. K. Ivanova, all of the Ukrainskiy institut metallov (Ukrainian Institute of Metals), A. I. Masurova, V. M. Dashchenko, N. N. Tsvetkova, Ye. I. Panasenko, all of the zavod im. Petrovskogo (Factory imeni Petrovskiy), I. K. Mayberoda, of the "Zaporozhstal'" Plant, M. N.Shtutman, Ye. V. Zvereva, Milyavskaya and Agafonova of the Magnitogorskiy metallurgicheskiy kombinat (Magnitogorsk Metallurgical Kombinat), A. V. Lukanin, A. I. Butova, K. T. Bil'skaya of the zavod imeni Kirova (Factory imeni Kirov), Z. I. Brailovskaya of the zavod im.Voroshilova (Factory imeni Voroshilov), L. I. Topalov of the Zaporozhskiy zavod ferroplavov (Zaporozh'ye Plant for Iron Alloys) and A. P. Atamanov, L. I. Kocherygova, A. S. Vitis, Ye. I. Bykova of the "Azovstal'" Works. There are 3 tables and 5 references, 4 of which are Soviet.

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"APPROVED FOR RELEASE: 07/19/2001 CIA-RDP86-00513R001137020014-2

24(7) SOV/4[illegible]-23-9-8/27

AUTHORS: Nikitina, O. I., Sklyar, M. G., Gorevaya, A. Ye., Ivanova, N. K.

TITLE: The Dependence Between the Composition of the Solid and Vaporous Phases in the Spectral Analysis of Alloys on an Iron Basis

PERIODICAL: Izvestiya Akademii nauk SSSR. Seriya fizicheskaya, 1959, Vol 23, Nr 9, pp 1069-1072 (USSR)

ABSTRACT: In the present paper the binary alloys Fe-Cr, Fe-Mn, Fe-Si, Fe-W, and Fe-C, as well as the ternary alloy Fe-Cr-C are investigated. The spectra were photographed by means of the ISP-22 spectrograph, and at the same time the products of evaporation were collected in a glass chamber. This glass chamber normally contained air, and only in the case of the alloy Fe-C pure oxygen was used. Investigations were carried out of arc- and spark-discharges. In both cases the time of exposure of the photos was the same. Until a sufficient quantity of products of evaporation had accumulated in the chamber for an analysis ten spectra were recorded, and after each recording the electrodes were newly sharpened. The experiments in the arc and in the spark were repeated three times for each alloy and the accumulated products of evaporation were

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The Dependence Between the Composition of the Solid and Vaporous Phases in the Spectral Analysis of Alloys on an Iron Basis

subjected to a thorough analysis. Figure 2 shows the results obtained according to the spark spectrum for the binary alloys. The dependence of the absolute light intensities of the alloy elements on the quantity of substance in the solid and in the vaporous phase is shown. In both cases this dependence is linear, and it was found that the substance quantity in the arc is greater by approximately one order of magnitude than in the spark. Further, the entry velocity of the substances into the gas cloud is investigated depending upon their concentration in the solid phase. The products condensing in the glass chamber were analyzed on this occasion. The entry mechanism of the elements entering the spark was found to be qualitatively equal for the systems Fe-Mn, Fe-W, Fe-Cr, Fe-Cr-C and Fe-Si. The entry velocity of iron has a maximum. It follows from the experiments that for the systems Fe-Cr, Fe-Cr-C, Fe-Mn and Fe-Si the concentration of atoms in the vaporous and in the solid phase are equal in the spark, and that for the system Fe-Cr this is the case also in the arc. The deviation of the linear dependence of the system Fe-Mn with 12% Mn in the arc is briefly discussed, and it is found

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The Dependence Between the Composition of the Solid and Vaporous Phases in the Spectral Analysis of Alloys on an Iron Basis

that for most alloys the relative concentrations of atoms in the solid and in the gaseous phases are equal, whereas the entry velocities of the sample depend on its chemical composition. The dependence of thermal conductivity and of the electric resistance on the composition of the alloy in these alloys shows a maximum of the former and a minimum of the latter, and agrees with a maximum of the substance escape from the solid alloy. The authors thank V. K. Prokof'yev for his interest in this work and for his advice. There are 3 figures.

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NIKITINA, O.I.; Prinimali uchastiye: BERDNIKOVA, L.R., laborant; IVANOVA, N.K., laborant

Spectrum analysis of blast furnace slags and fluxed sinter. Trudy Ukr. nauch.-issl. inst. met. no.6:283-299 '60. (MIRA 14:3)
(Slag--Spectra)(Sintering)

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"APPROVED FOR RELEASE: 07/19/2001 CIA-RDP86-00513R001137020014-2

S/137/62/000/001/219/237
A154/A101

AUTHORS: Nikitina, O. I., Gorevaya, A. Ye., Sklyar, M. G., Gudyrina, L. L., Invanova, N. K., Miroshnichenko, Z. N.

TITLE: On the ratio of the elements in the solid and vaporous phases upon spectral analysis of iron alloys in various gaseous media

PERIODICAL: Referativnyy zhurnal, Metallurgiya, no. 1, 1962, 5, abstract 1K32 ("Sb. tr. Ukr. n.-i. in-t metallov", 1961, no. 7, 301 - 321)

TEXT: An investigation was made into the effect of the oxidizing ability of a medium on the ratio of the elements of an alloy in a vaporous phase as compared with the solid phase by spectral analysis in a spark and an arc of the ternary Fe alloys: Fe-Cr-Mn, Fe-Cr-Al, Fe-Cr-Ni and Fe-Cr-W. It was found that the results of determination of the elements in a spark discharge scarcely depend on the oxidizing ability of the medium. In all gaseous media the graduation curves are common and rectilinear over the entire range of selected concentrations. Analysis of the alloys in a spark in an oxidizing medium revealed that the relative concentration of the elements in the vaporous phase does not differ from that in the solid phase of the alloy. The supply speed of the elements in

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On the ratio of the....

the discharge zone in spark analysis depends on the oxidizing ability of the medium, in the given gaseous medium; it is governed by the physicochemical properties of the solid alloy phases and does not depend on the volatility of their oxides. Upon analysis in an arc discharge in various gaseous media shifts of the graduation curves occur, which is explained by the role of the oxidizing processes under the effect of the spark discharge.

L. Vorob'yeva

[Abstracter's note: Complete translation]

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"APPROVED FOR RELEASE: 07/19/2001 CIA-RDP86-00513R001137020014-2

S/137/61/000/011/114/123
A060/A101

AUTHORS: Nikitina, O. I., Kutovaya, I. P.

TITLE: Use of the CT -7 (ST-7) stylometer for analyzing alloy steel and crude iron in the course of smelting

PERIODICAL: Referativnyy zhurnal. Metallurgiya, no. 11, 1961, 6, abstract 11K32 ("Sb. tr. Ukr. n.-i. in-t metallov", 1961, no. 7, 322 - 326)

TEXT: Using a ST-7 stylometer with gap width 0.07 mm, one controls the composition of steel and crude iron in the course of smelting and of final assays with respect to the following elements: heat-resistant steel - Ni, Cr, Mn, Si; stainless steel 18X9H (18Kh9N) - Cr, Mn, Si, Ni; stainless steel ЭЖ4 (EZh4) - Cr, Mn, Si; medium alloy steel - Mo, Ni, Cr; heat-resistant crude iron - Cr, Mn, Si; cast iron - Mn, Si; irons with Mg - Mn, Si. The range of the concentrations of the elements determinable (in %) is: in heat-resistant steel - Mn 0.76-1.42, Cr 21.5-30.9, Si 1.88-2.74, Ni 17.2-21.4; in heat-resistant crude iron - Mn 0.61-0.74, Cr 0.80-0.92, Si 1.72-1.79; in medium alloy steels - Cr 0.21-0.45, Mo 0.41-0.70, Ni 2.93-3.70. The time of the analysis of one assay for 4 elements (Mn, Cr, Si, Ni) constitutes 20 - 25 min, for Mn, Cr, Si 15 - 20

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"APPROVED FOR RELEASE: 07/19/2001 CIA-RDP86-00513R001137020014-2

NIKITINA O. I.

Shestakov, Ya. A.

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PHASE I BOOK EXPLOITATION SOV/6181

Ural'skoye soveshchaniye po spektroskopii. 3d, Sverdlovsk, 1960. Materialy (Materials of the Third Ural Conference on Spectroscopy) 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 Publishing 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 scientific research organizations, as well as for students of related disciplines and for technologists utilizing analytical results.

COVERAGE: The collection presents theoretical and practical problems of the application of atomic and molecular spectral analysis in controlling the chemical composition of various materials in ferrous and nonferrous metallurgy, geology, chemical industry, 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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"APPROVED FOR RELEASE: 07/19/2001 CIA-RDP86-00513R001137020014-2

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Zolotukhin, G. Ye., and T. F. Zykova. Investigation of thermal processes on surfaces of oxidizing metal electrodes 28

Topalov, L. I. Experience in quantitative evaluation of the effect of "third components" 31

Buravlev, Yu. M. Basic features of "third" elements in spectral analysis of steels 39

Kozlova, A. V. Effect of thermal stability of compounds during spectral analysis of ferroalloys 42

Nikitina, O. I., A. Ye. Gorevaya, and M. G. Sklyar. Effect of electrode oxidation on the composition of the vapor phase during spectral analysis of ternary iron-base alloys 44

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"APPROVED FOR RELEASE: 07/19/2001 CIA-RDP86-00513R001137020014-2

S/185/62/007/005/006/013
D407/D301

AUTHOR: Nikitina, O.I.

TITLE: Study of vapor-phase composition in the spectral analysis of high-iron alloys

PERIODICAL: Ukrayins'kyy fizychnyy zhurnal, v. 7, no. 5, 1962, 515 - 520

TEXT: The author investigated the conditions under which iron-alloy elements enter the discharge zones of arcs and sparks. Thereby the amount of alloy which enters the vapor phase per unit time (the rate of entry) was determined, as well as the concentration ratio of alloying element to iron, in the vapor phase. The composition of the vapor phase of the following binary alloys was determined: Fe-Cr, Fe-Mn, Fe-W, Fe-Si, Fe-C; of the ternary alloys: Fe-Cr-C, Fe-Cr-Ni, Fe-Cr-W, Fe-Cr-Al, and of commercial iron alloys which underwent heat treatment (over 100 alloys in all). It was found that the rate of entry depends on the discharge source, on the surrounding gas medium and on the material of the supplementary electrode. The discharge source was either an a.c.-arc from the generators DC-39

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(PS-39) and [illegible]-1 (DG-1), with a current of 4-5 amp., or a condensed spark from the generators [illegible]-2 (IG-2) and [illegible]-3 (IG-3). The spectra were photographed by means of the spectrograph [illegible]-22 (ISP-22). The vapor-phase products were collected in a glass container and analyzed by the photocolorimetric method. With a spark discharge, the rate of entry of the alloying element increases in direct proportion with its concentration. In ternary alloys, it depends on the presence of the third element. The rate of entry of the iron is low if the concentration of the alloying element is low; but it increases rapidly with the concentration of the latter, reaches a maximum value and then decreases. The rate of entry of the elements in the arc discharge is by one order of magnitude higher than in the spark discharge. The total amount of alloying element and iron in binary and ternary alloys which enters the vapor phase during a spark discharge, depends on the physical and chemical properties of the alloy, in particular on the heat conductivity and electrical resistance. The rate of entry depends to a large degree on the surrounding medium (argon, air, oxygen); it is lowest in argon and highest in oxygen. The oxidation processes affect the rate of entry. If the supplementary electrode is of the same material as the alloy, then

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the rate of entry is higher than for a carbon or copper electrode. No selective entry of elements into the vapor phase is observed in the case of a spark discharge with self-electrodes in an air atmosphere. In the case of an arc discharge, the entry is selective, regardless of the type of gaseous medium. In a spark discharge in oxygen, the entry is selective; this is due to oxidation processes (the vapor phase is enriched by readily oxidizable elements). The concentration ratio of the elements in the vapor phase is mainly determined by the type of discharge source, its power, and the duration of its effect on the surface under investigation. It is more convenient to use, in the spectral analysis of the above alloys, a spark discharge in an air atmosphere with electrodes of the same material as the alloy. The graduation curves should be constructed on the basis of the relative concentrations of the alloying elements. In the case of an arc discharge, argon is more convenient, especially if the alloys under investigation are readily oxidizable. There are 5 figures, 1 table and 6 Soviet-bloc references.

ASSOCIATION: Ukrayins'kyy naukovo-doslidnyy instytut metaliv (Ukrainian Scientific Research Institute Of Metals) Kharkiv

SUBMITTED: January 4, 1962

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"APPROVED FOR RELEASE: 07/19/2001 CIA-RDP86-00513R001137020014-2

S/185/62/007/005/007/015
D407/D301

AUTHORS: Nikitina, O.I., Hudyrina, L.L., Horyeva, A.E., and Ivanova, N.K.

TITLE: Effect of supplementary-electrode material on the composition of the vapor phase in the spectral analysis of ferrous metals

PERIODICAL: Ukrayins'kyy fizychnyy zhurnal, v. 7, no. 5, 1962, 523 - 528

TEXT: The composition of iron alloys in the vapor phase and the intensity of the analytic lines were studied as a function of the material of the supplementary electrode. The investigation had 2 objects: a) Determination of the composition of the vapor phase by the colorimetric method of analysis of condensates. b) Determination of line intensity by the method of linear absorption. The ternary alloys Fe-Cr-Ni and Fe-Cr-W were investigated, as well as commercial alloys. The supplementary electrode was made of rods of the same material as the investigated alloy, or of copper, carbon and aluminum. It was established that the material of the supplementary electrode

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affects the rate of entry of the elements into the vapor phase and the discharge temperature, thereby affecting the absolute intensity of the spectral lines. The rate of entry increases if the supplementary electrodes are replaced in the following order: Carbon, copper, self-electrode. The curves Cr-line intensity versus concentration undergo a parallel shift on replacing the electrodes, whereas the corresponding curves for Ni and W are shifted at an angle. The rate of entry of the elements is related to the physical and chemical properties of the alloy and of the electrode. The temperature of the discharge cloud changes as follows (depending on the type of supplementary electrode): $T_{carbon} > T_{self} > T_{copper} > T_{alum.}$. The intensity of the spectral lines of Ni changes in a greater measure than that of Cr, if the electrodes are replaced. The ratio of the concentration of the alloying element to that of iron in the vapor phase, remains practically unchanged (as compared to the solid phase) if carbon and self-electrodes are used, and varies somewhat if copper electrodes are used. The graduation curves undergo a parallel shift if this ratio changes. In conclusion, In order to determine the concentration of elements in the investigated alloys, spark analysis

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"APPROVED FOR RELEASE: 07/19/2001 CIA-RDP86-00513R001137020014-2

NIKITINA, O.I.; IVANOVA, N.K.

Spectral analysis of [illegible] remaining elements. Zav. lab. 30 no. [illegible] [illegible]

1. Ukrainskiy nauchno-issledovatel'skiy institut [illegible].

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"APPROVED FOR RELEASE: 07/19/2001 CIA-RDP86-00513R001137020014-2

NIKITINA, O.I.; IVANOVA, N.K.

Spectral method of determining residual elements in steel and cast iron. Sbor. trud. UNIIM no.9:464-470 '64 (MIRA 18:1)

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"APPROVED FOR RELEASE: 07/19/2001 CIA-RDP86-00513R001137020014-2

NIKITINA, O.I.

Preparing samples of blast furnace and open-hearth slags, sinters and silicates for spectrum analysis. Sbor.trud. UNIIM no.11:395-397 '65.

(MIRA 18:11)

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"APPROVED FOR RELEASE: 07/19/2001 CIA-RDP86-00513R001137020014-2

L 40110-66 EWT(m)/EWP(t)/ETI IJP(c) JD/WW/JG

ACC NR: AR6020537 SOURCE CODE: UR/0081/66/000/003/G015/G015

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B

AUTHOR: Nikitina, O. I.; Ivanova, N. K.; Gorevaya, A. Ye.

TITLE: Spectral methods of determining rare elements in steel

SOURCE: Ref zh. Khim, Part I, Abs. 3G117

REF SOURCE: Sb. tr. Ukr. n.-i. in-t metallov, vyp. 11, 1965, 393-404

TOPIC TAGS: niobium, zirconium, spectrographic analysis, hafnium, tantalum, cerium

ABSTRACT: Nb (0.03-1%) is determined by spark excitation with a carbon electrode in the lines Nb 3094.1-Fe 3083.7 A. The standards are steel specimens in which the Nb content was established by means of auxiliary powdered synthetic standards obtained by dissolving steel and measuring out an Nb solution. The spectra of Zr and Hf for concentrations of 0.03-0.5% are excited in a condensed spark. The upper electrode for Zr is an iron electrode, and for Hf, a copper electrode. The analytical lines were: Zr 3391.9-Fe 3323.0, and Hf 2638.7-Fe 2635.8 A. The standards are prepared in the same manner as for Nb. Tantalum in concentrations of 0.03-0.3% is determined with arc excitation in the lines Ta 2653.2-Fe 2647.5. The standards are steel specimens which have undergone chemical analysis. The spectrum of cerium is excited in an arc discharge of alternating current with an upper Al electrode. The lines Ce 3201.7-Fe 3202.5 A are measured. The standards are specimens which had undergone chemical analysis. ISP-22 and ISP-28 spectrographs are employed. The mean error of the analysis is 10%. The

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ACC NR: AR6020537

determinations last from 40 to 65 min. G. Kibisov. [Translation of abstract].

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"APPROVED FOR RELEASE: 07/19/2001 CIA-RDP86-00513R001137020014-2

NIKITINA, O.I.; GOREVAYA, A.Ye.; GUDYRINA, L.I.

Spectrum analysis of ferrous metals on a DFS-10 quantometer with automatic recording. Sbor.trud. UNIIM no.11:465-468 '65. (MIRA 18:11)

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"APPROVED FOR RELEASE: 07/19/2001 CIA-RDP86-00513R001137020014-2

NIKITINA, O.I.; Prinimala uchastiye: GERASIMOVA, S.L.

Diffusion of elements in a specimen during the spectrum analysis of iron alloys. Sbor.trud. UNIIM no.11:409-416 '65.
(MIRA 18:11)

APPROVED FOR RELEASE: 07/19/2001 CIA-RDP86-00513R001137020014-2"

"APPROVED FOR RELEASE: 07/19/2001 CIA-RDP86-00513R001137020014-2

NIKITINA, O.I.; IVANOVA, N.K.; GOREVAYA, A.Ye.

Spectrographic determination of niobium, tantalum, zirconium, hafnium, and cerium in steel. Zav. lab. 31 no.11:1347-1348 '65. (MIRA 19:1)

1. Ukrainskiy nauchno-issledovatel'skiy institut metallov.

APPROVED FOR RELEASE: 07/19/2001 CIA-RDP86-00513R001137020014-2"

"APPROVED FOR RELEASE: 07/19/2001 CIA-RDP86-00513R001137020014-2

ACC NR: AP7000597 (N) SOURCE CODE: UR/0129/66/000/011/0055/0058

AUTHOR: Dabagyan, N. P.; Nikitina, O. I.; Ivanova, N. K.; Chub, V. M.

ORG: Ukrainian Scientific Research Institute of Metals (Ukrainskiy nauchno-issledovatel'skiy institut metallov)

TITLE: The influence of nickel-interlayer thickness on the structure and properties of clad steel

SOURCE: Metallovedeniya i termicheskaya obrabotka metallov, no. 11, 1966, 55-58

TOPIC TAGS: metal joining, bimetal, nickel plating, metal cladding, steel /Kh18N10T steel, Kh17N13M2T steel

ABSTRACT: The thickness of a nickel interlayer plays a major role in promoting or inhibiting diffusion processes at the boundaries of metal joints and affects the properties and structure of the boundary zone. To determine this effect with respect to the strength of the joint and the structure of the bimetal, investigations were carried out on specimens made from laboratory and industrial clad steel.

Card 1/2 UDC: 669.24:669.14.018:8'14

APPROVED FOR RELEASE: 07/19/2001 CIA-RDP86-00513R001137020014-2"

"APPROVED FOR RELEASE: 07/19/2001 CIA-RDP86-00513R001137020014-2

ACC NR: AP7000597

The laboratory test pieces were made of rolled packs of Kh18N10T and St. 3sp types of steel with and without nickel interlayer, the thickness of the interlayer being 10, 25, 40, 65, and 90 microns. The tests were conducted for shear and tensile strength, notch toughness, cohesion strength, metallographic investigations, and spectrum analysis. The industrial test pieces were made of 10—14-mm-thick clad-steel sheets with a cladding layer of Kh17N13M2T steel, and basic layer from 20K type steel wiithout ant with nickel plate of a thickness of 25—30, 40, 50, 65, and 90 microns. The cohesion strength of both layers is found to increase as the thickness of the nickel interlayer is increased. The latter also affects diffusion at the metal layer interface and as a result the hardness and microhardness, as well as changes in the concentration of alloying elements. The maximum carbon consentration is found to be inversely proportional to the thickness of the nickel interlayer. The same is observed with respect to carbon diffusion. In steel clad without interlayer, there occurs complete decarbonization of the boundary layer of the non-carbon steel. A nickel interlayer lowers decarbonization of the boundary layer of St. 3sp steel and hinders the enrichment of the cladding steel in carbon.

[KP]

SUB CODE: 11/SUBM DATE: none/

Card 2/2

APPROVED FOR RELEASE: 07/19/2001 CIA-RDP86-00513R001137020014-2"

"APPROVED FOR RELEASE: 07/19/2001 CIA-RDP86-00513R001137020014-2

elements and heating at 1100° C. The silica served as internal standard.

R. Lord

BM LFH

APPROVED FOR RELEASE: 07/19/2001 CIA-RDP86-00513R001137020014-2"

"APPROVED FOR RELEASE: 07/19/2001 CIA-RDP86-00513R001137020014-2

NIKITINA, O.N.

USSR/Chemistry - Spectral analysis

Card 1/1 Pub. 43 - 87/97

Authors : Zil'bershteyn, Kh. I., and Nikitina, O. N.

Title : Spectral determination of small Si and Al amounts in solutions

Periodical : Izv. AN SSSR. Ser. fiz. 18/2, page 295, Mar-Apr 1954

Abstract : A method for spectral determination of small amounts of aluminum and silicon in solutions is briefly described. Some results obtained with the aid of this method are listed.

Institution : Academy of Sciences USSR, Institute of Chemistry of Silicates

Submitted : .....

APPROVED FOR RELEASE: 07/19/2001 CIA-RDP86-00513R001137020014-2"

"APPROVED FOR RELEASE: 07/19/2001 CIA-RDP86-00513R001137020014-2

NIKITINA, O.N.

Spectral determination of some elements in quartz and in highly siliceous substances. Izv.AN SSSR.Ser.fiz.19 no.2:199-200 Mr-Ap '55. (MLRA 9:1)

1.Institut khimii silikatov Akademii nauk SSSR.
(Tartu--Spectrum analysis--Congresses)

APPROVED FOR RELEASE: 07/19/2001 CIA-RDP86-00513R001137020014-2"

"APPROVED FOR RELEASE: 07/19/2001 CIA-RDP86-00513R001137020014-2

NIKITINA, O.N.

Computing the superimposition of linear and band spectra in the analysis of silica. Opt. i spektr. 1 no.8:1013-1016 D '56. (MLRA 10:2)

1. Institut khimii silikatov Akademii nauk SSSR.
(Silica--Spectra)

APPROVED FOR RELEASE: 07/19/2001 CIA-RDP86-00513R001137020014-2"

"APPROVED FOR RELEASE: 07/19/2001 CIA-RDP86-00513R001137020014-2

NIKITINA, O. N.

CARD 1 / 2 PA - 1794

SUBJECT USSR / PHYSICS

AUTHOR EL'JAŠEVIČ, M.A., NIKITINA, O.N.

TITLE The Triplet-Quintet Transitions in the Spectrum of the Silicon Atom.

PERIODICAL Dokl.Akad.Nauk, 111, fasc.2, 325-327 (1956)

Issued: 1 / 1957

At first already known data are discussed in short. O.N.NIKITINA was able, when investigating the silicon spectrum excited in a parallel current carbon arc (on the occasion of the burning out of SiO_2 from the anode channel) to discover two heavy spectral lines (λ_1 = 3006,72 Å at ν_{1vac}=33249,16 cm^{-1} and λ_2 = = 3020,00 Å (ν_{2vac} = 33102,95 cm^{-1}). The fact that these lines belong to the silicon atom was carefully verified. These lines always occur on the occasion of the excitation of the spectrum of a sample that contains a considerable quantity of silicon. Furthermore, these two lines always occur together, and the ratio of their intensity remains constant within the limits of measuring errors. The difference of their wave numbers amounts to 146.21 cm^{-1} and is (within the limits of measuring errors) identical with the difference of the wave number of the levels $^3P_2$ and $^3P_1$ of the principal triplet term of Si (^3P). Thus, these lines can naturally be interpreted as being transitions from a higher odd level to the even levels $^3P_1$ and $^3P_2$. Because of the lack of a transition to the level $^3P_0$ the upper level has the quantum number J = 2, and because of the low intensity of the lines

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are probably intercombination transitions. The level is lower than all other known odd levels of the silicon atom, and by 33326,28 cm^{-1} higher than the normal level $3s^2 3p^2 p_1^o$ (excitation energy 4,13 eV). The level 33326,28 cm^{-1} can univocally be interpreted as the quintet level $^5S_2^o$. It is then possible to interpret the lines 3006,72 and 3020,00 Å as triplet-quintet transitions: 3006,72 Å : : $3s3p^3\ ^5S_2^o - 3s^2 3p^2\ ^3P_1^o$ and 3020,00 Å : $3s3p^3\ ^5S_2^o - 3s^2 3p^2\ ^3P_2$. This interpretation agrees fully with all experimental data and theoretical deliberations. A table contains the intensities of these lines at different conditions of excitation. The relative intensities I_{3020}/I_{2970} and I_{3006}/I_{2970} are more stable than I_{3020}/I_{2577} and I_{3006}/I_{2577}. Though the two lines found here (triplet-quintet transitions) are less intense than the lines 2970,35 Å and 2577,13 Å (singlet-triplet transitions), they are of the same order, as it ought to be. The greater intensity of the line 3020,00 Å (greater than the intensity of the line 3006,72 Å) corresponds qualitatively to the greater statistical weight of the level $^3P_2$ as against the level $^3P_1$. The theoretical ratio of intensities is 5:3=1,67. A quantitative agreement can in such cases not be expected.

INSTITUTION: Institute for Physics and Mathematics of the Academy of Science in the White-Russian SSR.
Institute for the Chemistry of Silicates of the Academy of Science in the USSR

APPROVED FOR RELEASE: 07/19/2001 CIA-RDP86-00513R001137020014-2"

"APPROVED FOR RELEASE: 07/19/2001 CIA-RDP86-00513R001137020014-2

NIKITINA, O.N.

Obtaining pure silicon dioxide. Zhur. prikl. khim. 30 no.11:1690-1691 N '57. (MIRA 11:2)

1. Institut khimii silikatov AN SSSR.
(Silica)

APPROVED FOR RELEASE: 07/19/2001 CIA-RDP86-00513R001137020014-2"

"APPROVED FOR RELEASE: 07/19/2001 CIA-RDP86-00513R001137020014-2

NIKITINA, O.N.

Spectrum lines 3006.72 and 3020.00 Å. Fiz.sbor. no.4:463-464 '58. (MIRA 12:5)

1. Institut khimii silikatov AN SSSR.
(Spectrum analysis)

APPROVED FOR RELEASE: 07/19/2001 CIA-RDP86-00513R001137020014-2"

"APPROVED FOR RELEASE: 07/19/2001 CIA-RDP86-00513R001137020014-2

NIKITINA, O. N., PIRYUTKO, M. M., ZILBERSHTEYN, Kh. I., and SOMOV, M. P.

"Spectroscopic analysis of highly pure silicon after preconcentration"

report to be submitted for the Intl. Symposium on Pure Substances in Science and Technology, East German Chemical Soc., Dresden, East Germany
30 November -2 December 1961

APPROVED FOR RELEASE: 07/19/2001 CIA-RDP86-00513R001137020014-2"

"APPROVED FOR RELEASE: 07/19/2001 CIA-RDP86-00513R001137020014-2

S/054/62/000/004/013/017
B101/B186

AUTHORS: Morachevskiy. Yu. V. (Deceased), Zil'bershteyn, Kh. I., Piryutko, M. M., Nikitina, O. N.

TITLE: The process of chemical concentration used for the spectroscopic analysis of impurities in high-purity silicon

PERIODICAL: Leningrad. Universitet. Vestnik. Seriya fiziki i khimii, no. 4, 1962, 140-145

TEXT: The authors developed a method of analyzing high-purity silicon, based on a treatment of Si with HF and HNO_3 vapor and spectroscopic analysis of the concentrate (ZhAKh, 17, no. 5, 614, 1962). In the present work it was checked whether (a) the silicon sample is contaminated by impurities contained in the acids; (b) the impurities contained in the silicon pass completely into the concentrate; (c) the quantitative spectroscopic analysis of the impurities is affected by what type of compound is present as impurities in the concentrate. Results: (1) HF and HNO_3 were contaminated by Tl^{204}, Zn^{65}, As^{76}, Ni^{63}, Sb^{124}, P^{32}, In^{114}, Ag^{110}, Ga^{72}, Fe^{59}, Ca^{40}, Cu^{64}, Sn^{122}, and evaporated at 105-110°C. The residue was dissolved in

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"APPROVED FOR RELEASE: 07/19/2001 CIA-RDP86-00513R001137020014-2

in HNO_3 and the activity of the solution measured. It was found that the impurities contained in HF and HNO_3 did not pass into the vapor and did not contaminate the silicon. (2) When Si is dissolved in liquid acids, all impurities contained in the acid pass into the concentrate and the determination becomes much less sensitive. (3) Using radioisotopes for chemical and spectrum analyses it was found that the impurities contained in Si passed completely into the concentrate (except for the volatilizing As, Sb, and P) if Si was dissolved by acid vapor, regardless of the form taken by the impurities in Si (as metal, silicide, etc.). (4) After dissolution of Si most of the impurities form fluorides, but some of them (Cu, Ni) form nitrates or mixtures of nitrates and fluorides. (5) A precise quantitative spectroscopic analysis of the end concentrate of impurities is possible with the aid of aqueous standard solutions of nitrates of the elements to be determined. There are 3 tables.

SUBMITTED: June 10, 1961

APPROVED FOR RELEASE: 07/19/2001 CIA-RDP86-00513R001137020014-2"

"APPROVED FOR RELEASE: 07/19/2001 CIA-RDP86-00513R001137020014-2

MORAČHEVSKIY, Yu.V. [deceased]; ZIL'BERSHTEYN, Kh.I.; PIRYUTKO, M.M.; NIKITINA, O.N.

Spectral determination of impurities in semiconductor silicon after a preliminary chemical concentration. Zhur.anal.khim. 17 no.5: 614-620 Ag '62. (MIRA 16:3)

1. Institute of Silicate Chemistry, Academy of Sciences, U.S.S.R., Leningrad.
(Silicon) (Semiconductors—Spectra)

APPROVED FOR RELEASE: 07/19/2001 CIA-RDP86-00513R001137020014-2"

"APPROVED FOR RELEASE: 07/19/2001 CIA-RDP86-00513R001137020014-2

MORACHEVSKIY, Yu.V. [deceased]; ZIL'BERSHTEYN, Kh.I.; PIRYUTKO, M.M.; NIKITINA, O.N.

Processes of chemical concentration used for the spectral determination of impurities in an extrapure silicon. Vest. LGU 17 no.22:140-145 '62. (MIRA 15:12)
(Silicon—Analysis) (Spectrochemistry)

APPROVED FOR RELEASE: 07/19/2001 CIA-RDP86-00513R001137020014-2"

"APPROVED FOR RELEASE: 07/19/2001 CIA-RDP86-00513R001137020014-2

S/032/62/028/006/011/025
B101/B138

AUTHORS: Zil'bershteyn, Kh. I., Piryutko, M. M., Nikitina, O. N., and Fedorov, Yu. F.

TITLE: Techniques of the spectrochemical analysis of semiconductor silicon

PERIODICAL: Zavodskaya laboratoriya, v. 28, no. 6, 1962, 680 - 682

TEXT: The spectrochemical analysis of semiconductor silicon already described (Zavodskaya laboratoriya, v. 25, no. 12, 1474 (1959)) is supplemented by some data. (1) The prevention of contamination of the samples during pulverization was investigated. Comparison of silicon monocrystal plates, agate, piezoquartz and leucosapphire as pulverizers showed that contamination by Cu, Ca, Al, Mg, Fe and Ni is prevented only with silicon monocrystals. (2) Initial crushing of the sample occurred by crushing the crystal wrapped in a ftoroplast-4 (fluoroethylene) film between ftoroplast plates in a hydraulic press. (3) The solutions of the nitrates of the elements to be investigated, used as standards, were found to remain unchanged after storage for seven months in polyethylene bottles.

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"APPROVED FOR RELEASE: 07/19/2001 CIA-RDP86-00513R001137020014-2

ZIL'BERSHTEYN, Kh.I.; NIKITINA, O.N.

Effect of nitric acid on the results of the spectral analysis of solutions. Zav.lab. 29 no.11:1323 '63. (MIRA 16:12)

1. Institut khimii silikatov AN SSSR.

APPROVED FOR RELEASE: 07/19/2001 CIA-RDP86-00513R001137020014-2"

"APPROVED FOR RELEASE: 07/19/2001 CIA-RDP86-00513R001137020014-2

NIKITINA, O. N.

The Second All-Union Conference on the Preparation and Analysis of High-Purity Elements, held on 24-28 December 1963 at Gorky State University im. N. I. Lobachevskiy, was sponsored by the Institute of Chemistry of the Gorky State University, the Physicochemical and Technological Department for Inorganic Materials of the Academy of Sciences USSR, and the Gorky Section of the All-Union Chemical Society im. D. I. Mendeleyev. The opening address was made by Academician N. M. Zhavoronkov. Some 90 papers were presented, among them the following:

Kh. I. Zil'bershteyn, O. N. Nikitina, and M. P. Semov. Spectrochemical determination of some impurities in silicon dioxide, with a sensitivity of 3×10^{-7} to 3×10^{-6}% for most of them.

(Zhur. Anal. Khim, 19 No.6, 1964 p.777-74)

APPROVED FOR RELEASE: 07/19/2001 CIA-RDP86-00513R001137020014-2"

"APPROVED FOR RELEASE: 07/19/2001 CIA-RDP86-00513R001137020014-2

ZIL'BERSHTEYN, Kh.I.; PIRYUTKO, M.M.; NIKITINA, O.N.; FEDOROV, Yu.F.; NENAROKOV, A.V.

Rapid chemical concentration of silicon in the preparation of samples for spectral analysis. Zav. lab. 29 no.10:1266-1267 '63. (MIRA 16:12)

1. Institut khimii silikatov AN SSSR.

APPROVED FOR RELEASE: 07/19/2001 CIA-RDP86-00513R001137020014-2"

"APPROVED FOR RELEASE: 07/19/2001 CIA-RDP86-00513R001137020014-2

L 14522-65 EWT(m)/EWP(t)/EWP(b) IJP(c)/RAEM(1)/ESD(t) JD

ACCESSION NR: AP5001427 S/0075/64/019/008/0975/0979

AUTHOR: Zil'bershteyn, Kh. I.; Nikitina, O. N.; Nenarokov, A. V.; Panteleyev, Ye. S.

B

TITLE: Determination of impurities in especially pure silicon dioxide by a spectrographic method after preliminary concentration

SOURCE: Zhurnal analiticheskoy khimii, v. 19, no. 8, 1964, 975-979

TOPIC TAGS: spectrochemical method, quartz, silicon dioxide, spectrographic analysis

Abstract: Two variations of a spectrochemical method of determining impurities in quartz and silicon dioxide were developed. Chemical concentration of the impurities was accomplished by decomposing the test sample with hydrogen fluoride vapors in a special chamber made of fluoroplastic. In the first variation of the method, the sample was placed on a thin film of fluoroplastic, and the concentrate of impurities subjected to spectrographic analysis together with the film in an alternating-current carbon arc. In

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"APPROVED FOR RELEASE: 07/19/2001 CIA-RDP86-00513R001137020014-2

L 14522-65

ACCESSION NR: AP5001427

the second variation of the method, the sample was placed in a fluoroplastic cup, moistened with small amounts of solutions of sulfuric acid and an internal standard (cobalt); the liquid sulfuric acid concentrate obtained after decomposition of the sample was applied on carbon electrodes, coated with polystyrene, and the dry residue analyzed in an alternating-current arc. Solutions of the elements to be determined were used as reference standards. The sensitivity of the method for 1-gram samples of silicon dioxide ranged from $3 \cdot 10^{-7}$ to $3 \cdot 10^{-6}$%: $(2-3) \cdot 10^{-7}$% Mn, Ag; $(3-5) \cdot 10^{-7}$% Ga, Cu; $(1-2) \cdot 10^{-6}$% Al, Mg, Pb, Ti; $(2-4) \cdot 10^{-6}$% Fe, Ni, Sn; $(1-3) \cdot 10^{-5}$% Ca, Zn. Orig. art. has: 1 figure, 1 graph, and 3 tables.

ASSOCIATION: Institut khimii silikatov AN SSSR, Leningrad (Institute of Silicate Chemistry, AN SSSR)

SUBMITTED: 27Jul63 ENCL: 00 SUB CODE: GC, OP

NO REF SOV: 002 OTHER: 000 JPRS

Card 2/2

APPROVED FOR RELEASE: 07/19/2001 CIA-RDP86-00513R001137020014-2"

"APPROVED FOR RELEASE: 07/19/2001 CIA-RDP86-00513R001137020014-2

ZIL'BERSHTEYN, Kh.I.; NIKITINA, O.N.; NENAROKOV, A.V.; PANTELEYEV, Ye.S.

Determination of impurities in high-purity silicon dioxide by the spectral method after concentration. Zhur. anal. khim. 19 no.8: 975-979 '64. (MIRA 17:11)

1. Institut khimii silikatov AN SSSR, Leningrad.

APPROVED FOR RELEASE: 07/19/2001 CIA-RDP86-00513R001137020014-2"

"APPROVED FOR RELEASE: 07/19/2001 CIA-RDP86-00513R001137020014-2

ZILBERSHTEYN, Ch. I.; GERBATSCH, R.; NIKITINA, O. N.; SEMOV, M. [illegible]; ARTUS, [illegible].

"Zur empfindlichen Losungsspektralanalyse mit [illegible] ruckstandes auf Spektralkohleelektroden."

report submitted for 2nd Intl Symp on Hyperpure Materials in [illegible] and Technology, Dresden, GDR, 2[illegible] Sep-2 Oct [illegible].

Inst Chemistry of Silicates im Grebenshchikov, Leningrad, except Gerbatsch & Artus -- Institut fer angewandte Physik der Reinststoffe Dresden.

APPROVED FOR RELEASE: 07/19/2001 CIA-RDP86-00513R001137020014-2"

"APPROVED FOR RELEASE: 07/19/2001 CIA-RDP86-00513R001137020014-2

NIKITINA, O. P.

25-2-39/43

AUTHOR: Nikitina, O.P., Surgeon at the Institute of Surgery imeni A.V. Vishnevskiy AMN USSR

TITLE: Kidney Stones (Pochechnokamennaya bolezn')

PERIODICAL: Nauka i Zhizn', 1958, # 2, pp 78 - 79 (USSR)

ABSTRACT: The author describes the formation of kidney stones, explains their causes and recommends cures.

ASSOCIATION: Institute of Surgery imeni A.V. Vishnevskiy AMN USSR (Institut khirurgii imeni A.V. Vishnevskogo AMN SSR)

AVAILABLE: Library of Congress

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APPROVED FOR RELEASE: 07/19/2001 CIA-RDP86-00513R001137020014-2"

"APPROVED FOR RELEASE: 07/19/2001 CIA-RDP86-00513R001137020014-2

PEREVERZEVA, R.A., kand.med.nauk; NIKITINA, O.P.

Case of surgical treatment of adrenal pheochromocytoma using hormone therapy. Khirurgiia no.10:145-146 '64. (MIRA 18:8)

1. 3-ya khirurgicheskoye otdeleniye (zav. - prof. G.D.Vilyavin) Instituta khirurgii imeni Vishnevskogo, Moskva.

APPROVED FOR RELEASE: 07/19/2001 CIA-RDP86-00513R001137020014-2"

"APPROVED FOR RELEASE: 07/19/2001 CIA-RDP86-00513R001137020014-2

NIKITINA, O.P.

Renal changes in experimental burn shock under the influence of novocaine. Eksper. khir. i anest. 9 no.5:45-49 S-O '64. (MIRA 18:11)

1. Ozhogovoye otdeleniye (zav. - prof. M.I.Shrayber), patologomorfologicheskiy otdel (zav. - prof. D.S.Sarkisov) Instituta khirurgii imeni A.V.Vishnevskogo (direktor - deystvitel'nyy chlen AMN SSSR prof. A.A.Vishnevskiy) AMN SSSR, Moskva.

APPROVED FOR RELEASE: 07/19/2001 CIA-RDP86-00513R001137020014-2"

"APPROVED FOR RELEASE: 07/19/2001 CIA-RDP86-00513R001137020014-2

NIKITINA, O.P.

Effect of the intravenous administration of novocaine on some functions of the kidneys in a period of burn shock. Eksper. khir. i anest. 9 no.6:78-83 N-D '64. (MIRA 18:7)

1. Ozhogovoye otdeleniye (zav. - prof. M.I.Shrayber) Instituta khirurgii imeni A.V.Vishnevskogo (direktor - deystvitel'nyy chlen AMN SSSR prof. A.A.Vishnevskiy) AMN SSSR, Moskva.

APPROVED FOR RELEASE: 07/19/2001 CIA-RDP86-00513R001137020014-2"

"APPROVED FOR RELEASE: 07/19/2001 CIA-RDP86-00513R001137020014-2

L 13715-63 EWP(q)/BDS/EWT(1)/EWT(m)/EEC(b)-2 AFFTC/ASD/ESD-3
Pi-4 IJP(C)/GG/JD

ACCESSION NR: AP3003559 S/0020/63/151/002/0369/0372

AUTHORS: Kazanskiy, V. B.; Nikitina, O. V.; Pariyskiy, G. B.; Kiselev, V. F. 69

TITLE: Electron paramagnetic study of radical form of molecular oxygen adsorption on reduced titanium dioxide

SOURCE: AN SSSR. Doklady, v. 151, no. 2, 1963, 369-372

TOPIC TAGS: EPR, titanium dioxide, oxygen, anatase

ABSTRACT: A complex electron paramagnetic resonance was observed after the admission of oxygen into an ampule containing a test specimen of anatase. The form of this signal depends on the pressure of the oxygen, during which the adsorption process, the pressure of oxygen is increased then the amplitude of the "narrow" or initial signal falls, and after 20 mm the signal cannot be observed. Influences of the oxygen on the signal are invertible. The paper was presented by Academician V. N. Kondrat'yev on 3 April 1963. Orig. art. has: 2 figures and 1 table.

Inst. of Chemical Physics

Card 1/2

APPROVED FOR RELEASE: 07/19/2001 CIA-RDP86-00513R001137020014-2"

"APPROVED FOR RELEASE: 07/19/2001 CIA-RDP86-00513R001137020014-2

ACC NR: AP7012437

SOURCE CODE: UR/0020/66/171 002 0374/0377

AUTHOR: Kiselev, V. F.; Nikitina, O. V.

ORG: Moscow State University im. M. V. Lomonosov (Moskovskiy gosudarstvennyy universitet); Scientific Research Institute of the Tire Industry (Nauchno-issledovatel'skiy institut shinnoy promyshlennosti)

TITLE: Valency state of peripheral carbon atoms on the surface of a fresh graphite fracture

SOURCE: AN SSSR. Doklady, v. 171, no. 2, 1966, 374-377

TOPIC TAGS: adsorption, graphite, electron paramagnetic resonance, chemical valence

SUB CODE: 07

ABSTRACT: The adsorption properties and the electronic paramagnetic resonance spectra of graphite powders vibropulverized under different conditions were studied. The specific surfaces of the specimens determined (after completion of adsorption measurements) from low-temperature adsorption of nitrogen varied from 180 to 230 meters^2/gram, corresponding to particle size of about 200 AU. Plotting of micromoles/meter^2 versus torrs of pressure gave a variable of irreversible adsorption of 0.65 micromole/meter^2. Considering that oxygen is

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UDC: 541.515 + 541.183.26+541.18.053

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"APPROVED FOR RELEASE: 07/19/2001 CIA-RDP86-00513R001137020014-2

ACC NR: AP7012437

adsorbed in the atomic form, this is equivalent to a concentration of active sites of about 10^{14} sites/cm^2. However, this value characterizes the mean concentration of sites over the entire particle surface. Only the prismatic facets are reactive. Recalculation of the concentration of active sites on the surface of the prismatic facets leads to a value of about 10^{15} sites/cm^2, which is close to the concentration of carbon atoms on the surface of these facets. Orig. art. has: 2 figures and 1 formula. [JPRS: 40,422]

2/2

APPROVED FOR RELEASE: 07/19/2001 CIA-RDP86-00513R001137020014-2"

"APPROVED FOR RELEASE: 07/19/2001 CIA-RDP86-00513R001137020014-2

NIKITINA, O.Yu.

Some characteristics of carbohydrate metabolism in the skeletal muscles of the chick embryo. Ukr. biokhim. zhur. 35 no.2:188-194 '63. (MIRA 17:9)

1. Ukrainian Research Institute for Poultry Breeding, Borki, Kharkov Region.

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NIKITINA, P.A.

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TITLE: Investigation on Paraffinic Hydrocarbons in Kerosene Fractions of the Ukhtashkaya Petroleum From Romashkinskoye Oil Field (Issledovaniye parafinovykh uglevodorodov kerosinovoy fraktsii ukhtashkoy nefti Romashkinskogo mestorozhdeniya)

PERIODICAL: Doklady Akademii nauk SSSR, 1958, Vol 122, Nr 4, pp 621 - 624 (USSR)

ABSTRACT: There are great experimental difficulties confronting the investigation of the individual composition and properties of the aliphatic hydrocarbons of the high-boiling petroleum fractions. A survey of publications follows (refs 1 - 3, 10). The present paper was carried out in order to obtain a qualitative and quantitative characteristic of the n-paraffin-hydrocarbons (fraction 175 - 300°) of the petroleum mentioned in the title. The oil is from the Devonian sediments of the Nikhaylevskiy horizon D_0 from a depth of

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1583 - 1583,8 m. After gasoline and resin had been extracted the petroleum fraction (17,2 percentages by weight) was fractionated. After aromatic and sulfurous compounds had been removed by adsorption of silica gel, the product (now 10,4 kg) was treated with urea (Ref 4). 2,5 kg of the hydrocarbons which react with urea were isolated. The isomers were removed by means of sulfuric acid of 100% on a boiling water bath (3 hours). After 10% of the isocompounds had been removed, the solidification point of the product rose from -2 to -0,5°. After an intensive (chetkaya) rectification in a vacuum column, all main fractions each contained only individual n-paraffin-hydrocarbons without isostructures. These latter were concentrated in the intermediate fractions which had a solidification temperature of -90°, all mixed together. Table 1 and figure 1 show the results of the rectification and the yields, table 2 the properties and the purity of the individual hydrocarbons when they were isolated from the Ukhtashkaya petroleum. The quantitative estimation of the purity of these compounds was carried out

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on the strength of a thermodynamic analysis of the curves: time - melting temperature (Refs 6, 7). The melting point of the sample and the amount of the temperature depression which was caused by an admixture were determined. It was proved that among the hydrocarbons isolated by urea at least 75 - 80% fall to normal paraffins. The main fractions consist of pure individual paraffins with a straight chain. Finally these paraffins are enumerated in percentages by weight with their empirical formulas. There are 1 figure, 2 tables, and 10 references, which are Soviet.

ASSOCIATION: Institut nefti Akademii nauk SSSR (Institute of Petroleum, AS USSR)

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NIKITINA, P.P.; REVYAKIN, A.A.; TAYCHER, M.M.; DVORIN, S.S., redaktor; ZINGER, S.L., redaktor izdatel'stva; BERLOV, A.P., tekhnicheskiy redaktor

[Manual on coke, coke oven gas, chemical and other products of the coke industry] Spravochnik po koksu, koksovomu gazu, khimicheskim i drugim produktam koksokhimicheskoi promyshlennosti. Moskva, Gos. nauchno-tekhn. izd-vo lit-ry po chernoi i tsvetnoi metallurgii, 1956. 61 p. (MLRA 9:10)

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Mihail IAkovlevich Moroz; obituary. Koks i khim.no.3:64 '56. (MLRA 9:8)
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KURITS, Aleksandr Ariyevich; VODOLAZHCHENKO, Vitaliy Vasil'yevich; GRINSBERG, Filipp Grigor'yevich; ROZENBLIT, Gennadiy Borisovich; SIMSON, Al'fred Eduardovich; NAYDENKO, G.A., kand. tekhn. nauk, retsenzent; RABOVSKIY, V.V., inzh., retsenzent; VOLKOVICH, G.F., retsenzent; ZAKHARENKO, B.A., kand. tekhn. nauk, nauchn. red.; NIKITINA, R.D., red.; SHISHKOVA, L.M., tekhn. red.

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SHCHEGOLEV, Aleksandr Pavlovich; ALEKSANDROV, A.V., kand. tekhn. nauk, retsenzent; KARELIN, V.F., nauchn. red.; NIKITINA, K.D., red.

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