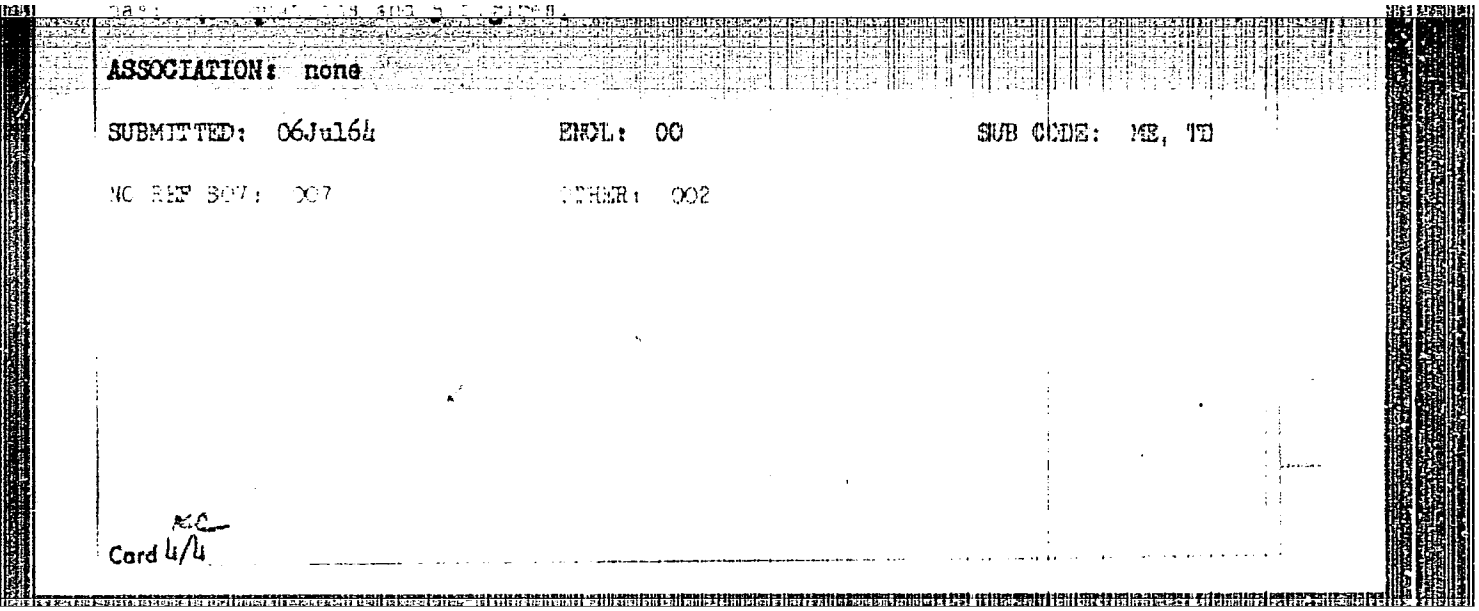

ASSOCIATION: none

SUBMITTED: 06Jul64 ENCL: 00 SUB CODE: MS, TD

NO REF SOV: 007 OTHER: 002

Card 4/4

V. A.; CROMOV, K. Ya.; DZHELEPOV, B. S.; ZHELEV, Zh. T.; KALINNIKOV, B. G.; ...TSEVA, A. V.

"Investigations of the Positron Spectra of Lu^{167}, Lu^{169}, and Lu^{170}."

report submitted for All-Union Conf on Nuclear Spectroscopy, Tbilisi, 14-22 Feb 64.

OIYaI, LGU (Joint Inst Nuclear Res; Leningrad State Univ)

[illegible]. Ya.; DZHELEPOV B. S.; ZHELEV, Zh. T.; KALINNIKOV, B. S.; [illegible], M. A.

"Positrons from the Decay of Ho^{160}."

"Concerning the Decay of Er^{161}."

reports submitted for All-Union Conf on Nuclear Spectroscopy, Tbilisi, 14-22 Feb 64.

OIYaI, LGU (Joint Inst Nuclear Res; Leningrad State Univ)

KALINNIKOV, B. K.

From the Experience With Medical Service to the Flying Personnel While Retraining the Men to Fly Helicopters

VOYENNO-MEDITSINSKIY ZHURNAL,
No. 1, January, 1956 pp 57

KALINNIKOV, I.

Improving urban transportation. NTO 2 no.7:37 Jl '60.
(MIRA 13:7)

1. Zamestitel' predsedatelya Moskovskogo oblastnogo upravleniya Nauchno-tekhnicheskogo obshchestva gorodskogo khozyaystva i avtomobil'nogo transporta.
(Moscow--Transportation)

KALINNIKOV, I.V., inzh.; KRIMSKIY, D.M., inzh.

Mechanized heat treatment of compressor valve plates. Mashinostroenie no.1:68-70 Ja-F '65. (MIRA 18:4)

KALINNIKOV, N.

KALINNIKOV, N., kand. tekhn. nauk.

New pneumatic suspension of passenger automobiles. Avt. transp. 36 no.1:38 Ja '58. (MIRA 11:1)
(Automobiles--Shock absorbers)

KALINNIKOV, S.

How misuses were uncovered. Fin. SSSR 38 no.1:75-76 Ja '64.
(MIRA 17:2)

1. Starshiy kontroler-revizor Kontrol'no-revizionnogo upravleniya Ministerstva finansov RSFSR po Kalininskoy oblasti.

GROMOV, K.Ya.; DZHELEPOV, B.S.; ZVOL'SKA, V.; ZVOL'SKIY, I.; KALINNIKOV, V.G.

Decay of Tu^{163}. Izv.AN SSSR.Ser.fiz. 27 no.2:182-194 F '63. (MIRA 16:2)

(Thulium isotopes--Decay)

G. . Ya.; DZHELEPOV, B. S.; YENCHEV, D. A.; ZHELEV, Zh. T.; KALINNIKOV, . . G.; . EVA, A. V.

'Investigations of Spectra of Conversion Electrons and Spectra of Positrons of the Europium Fraction."

report submitted for All-Union Conf on Nuclear Spectroscopy, Tbilisi, 14-22 Feb 64.

OIYaI, LGU (Joint Inst Nuclear Res; Leningrad State Univ)

TOPIC TAGS: terbium isotope, conversion electrical spectrum, coincidence spectrum, positron spectrum, level scheme

ABSTRACT: The authors continue earlier investigations of the conversion electron spectrum and of the positron spectrum of Tb^{152} (Programma i tezisy dokladov XIII Ezhegodnogo soveshchaniya po yadernoy spektroskopii [Program and theses of the 13th Annual Conference on Nuclear Spectroscopy], Leningrad, Izd. AN SSSR, 1963) since their results, as well as those of others, show that the [illegible] is made difficult by the near-equality of the [illegible] Part of the experimental results was already reported at [illegible]

APPROVED FOR RELEASE: 08/10/2001 CIA-RDP86-00513R000620110019-1"

L 51469-65

ACCESSION NR: AP5013108

by chromatographic separation of the rare-earths from tantalum irradiated by 660-
MeV protons. The [illegible]

L 26694-66 EWT(m) DIAAP JD/JG

ACC NR: AP6016896 SOURCE CODE: UR/0367/65/002/005/0783/0793

AUTHOR: Gromov, K. Ya.; Zhelev, Zh. T.; Zvol'ska, V.; Zvolska, V.; Kalinnikov, V. G.

ORG: Joint Institute of Nuclear Research (Ob"yedinennyy institut yadernykh issledovaniy); Zvol'ska/ Prague Institute of Nuclear Research (Prazhskiy institut yadernykh issledovaniy)

TITLE: Decay of Er sup 161

SOURCE: Yadernaya fizika, v. 2, no. 5, 1965, 783-793

TOPIC TAGS: radioactive decay, positron, erbium, holmium, spectrometer, electron spectrum

ABSTRACT: Positron radiation of Er^{161} (E_0 = 820 ± 40 keV) was observed with a triple-focusing magnetic spectrometer. Data are presented for the conversion electron spectrum and the multipolarity of certain transitions in the Ho^{161} nucleus. The $Er^{161} \longrightarrow Ho^{161}$ decay-scheme is determined and presented. The 1897 and 1943 keV levels are interpreted as three-quasi-particle states. The authors express deep thanks to A. V. Kudryavtsevaya for the help on the work and to N. I. Pyatov and V. N. Mikhaylov for checking the decay-scheme. Orig. art. has: 5 figures and 2 tables. /JPRS/

SUB CODE: 20 / SUBM DATE: 09Apr65 / ORIG REF: 011 / OTH REF: 010

SOV REF: 012

Card 1/1 BLG

L 23256-66 EWT(m) DIAAP

ACC NR: AP6009155 SOURCE CODE: UR/0367/65/002/005/0956/0957

AUTHOR: Zhelev, Zh. T.; Kalinnikov, V. G.; Kudryavtsevm, A. V.; Lebedev, N. A.; Makarov, S. P.; Muziol', G.; Kherrmann, E.

ORG: Joint Institute of Nuclear Research (Ob"yedinennyy institut yadernykh issledovaniy)

TITLE: New isotopes Er^{157}, Ho^{157}, and Er^{156}

30
B

SOURCE: Yadernaya fizika, v. 2, no. 5, 1965, 956-957

TOPIC TAGS: erbium, holmium, isotope, half life

ABSTRACT: The search for new erbium and holmium isotopes was made with the aid of a magnetic β spectrometer with three successive foci and with a scintillation γ spectrometer. The compounds for the investigation were separated chromatographically from a tantalum target bombarded with 660-Mev protons in the OIYaI synchrocyclotron. The chemical separation of the rare earths started approximately ten minutes after the end of the irradiation, and that of the erbium and holmium fractions after two hours. The genealogical connections were investigated in the following proposed chains of decay reaction:

Card 1/2

L 23256-66

ACC NR: AP6009155

$$Er^{157} \xrightarrow{?} Ho^{157} \xrightarrow{?} Dy^{157} \xrightarrow{8.2\ hr} Tb^{157},$$

$$Er^{156} \xrightarrow{?} Ho^{156} \xrightarrow{57\ min} Dy^{156}\ (stable).$$

The half lives of Er^{157} and Ho^{157} were found to be 24^{+2}_{-4} and 18^{+2}_{-4} minutes, respectively. While the existence of Er^{157} and Ho^{157} was previously predicted in the literature, no data on the existence of Er^{156} have ever been published. The half life of Er^{156} could not be reliably identified, but an upper limit of 10--12 minutes was estimated for it. It is pointed out in the conclusion that observation of the same isotopes was subsequently reported by A. Gizon et al. (Phys. Nucl. Ann. 1964, Inst. du Rad., Paris, April, 1965) with somewhat different values of the half lives. Orig. art. has: 1 formula.

SUB CODE: 20/ SUBM DATE: 04Jun65/ ORIG REF: 001/ OTH REF: 001

Card 2/2 BLG

L 26659-66 EWT(m) DIAAP JD/JG

ACC NR: AP6017114 SOURCE CODE: UR/0048/65/029/012/2235/2238

AUTHOR: Gromov, K. Ya.; Zhelev, Zh. T.; Kalinnikov, V. G.; Kuznetsov, V. V.; Kun, Syan-tszin'; Muziol', G.; Han', Shu-zhun'; Khalkin, V. A.

65
B

ORG: none

TITLE: Positrons in Gd sup 147 decay [This paper was presented at the 15th Annual Conference on Nuclear Spectroscopy and the Structure of the Atomic Nucleus, held in Minsk from 25 January to 2 February 1965]

SOURCE: AN SSSR. Izvestiya. Seriya fizicheskaya, v. 29, no. 12, 1965, 2235-2238

TOPIC TAGS: positron, gadolinium, spectrometer, scintillation spectrometer, tantalum, europium, gamma spectrum, isotope, radioactive decay

ABSTRACT: The positron emission of Gd^{147} is studied with a scintillation spectrometer and a triple-focussing beta spectrometer. The gadolinium sample was extracted from a tantalum target that had been irradiated for 2 hours at 660 Mev. The purpose of this work was to determine the Eu^{147} levels that are populated by positron decay of Gd^{147}. This is done by studying the triple coincidence of the 511-511 kev gamma quanta and the quanta of the entire gamma spectrum. The equipment used is diagrammed in the following paper (in the same journal).

Triple coincidence spectra are plotted for two geometries of the detectors. The lone peak at 230 kev leads the authors to assume that a

Card 1/2

L 26659-66

ACC NR: AP6017114

large fraction of the positrons populates the 229 kev level. The remainder is shown to go to ground state. The schematic diagram of Gd^{147} Eu^{147} is shown. Orig. art. has: 4 figures and 1 formula. [JPRS]

SUB CODE: 20 / SUBM DATE: none / ORIG REF: 012 / OTH REF: 003

Card 2/2 BLG

KALINNIKOV, V.K., podpolkovnik meditsinskoy sluzhby

Medical services in retraining helicopter flight crews. Voen-med. zhur. no.1:57-59 Ja '56 (MLRA 10:5)
(MEDICINE, AVIATION,
med. serv. in retraining of flying personnel on helicopters) (Rus)

KALINNIKOV, V.M., starshiy tekhnik; ZARUBIN, N.Ye., inzh.

Instrument for measuring soil temperatures under field conditions. Transp.stroi. 9 no.1:58-59 Ja '59. (MIRA 12:2)
(Measuring instruments) (Soil temperature)

KALINNIKOV, V.T.; SHTEYNBERG, A.N.

Quantitative spectrum analysis of pure titanium by the evaporation method. Titan i ego splavy no.8:260-265 '62. (MIRA 16:1)
(Titanium--Spectra)

ZELENTSOV, V.V.; KALINNIKOV, V.T.; VOLKOV, M.N.

Vanadyl alkanoates having anomalous magnetic properties. Zhur. strukt. khim. 6 no. 4:647-649 Jl-Ag '65 (MIRA 19:1)

1. Moskovskiy fiziko-tekhnicheskiy institut. Submitted October 7, 1964.

ACCESSION NR: AP4013301 S/0032/64/030/002/0178/0180

AUTHORS: Kalinnikov, V. T.; Shteynberg, A. N.

TITLE: Spectral analysis of titanium dioxide and silicon carbide by the evaporation method

SOURCE: Zavodskaya laboratoriya, v. 30, no. 2, 1964, 178-180

TOPIC TAGS: spectral analysis, titanium dioxide, silicon carbide, carborundum, evaporation method, evaporator, impurity, impurity removal, purification, spectrograph, kinetics of vaporization, titanium, graphite

ABSTRACT: The authors used the vaporization method to distill the impurities from samples of metallic titanium and silicon carbide (carborundum), followed by determination using an ISP-28 spectrograph in an electric arc. The vaporizer was an electric furnace with a 16 x 17 x 20 cm chamber, where 50 mg of the specimens were placed in graphite beakers, then heated to the desired temperature. Since metallic titanium was difficult to grind, these samples were converted to titanium dioxide by heating in air at 800-900C, and then were mixed with one third their weight of graphite powder to prevent spattering in the vaporizer. It was found that

Card 1/2

ACCESSION NR: AP4013301

at 1500C the vaporization of Bi, Pb, and Sn occurred, followed by that of Fe, Mn, Si, and Cu at 2000C. Mg, Al, and Cr began to evaporate at 2200C. It took 120 seconds to vaporize the elements of the first group, another 120 seconds for the second, and an additional 150 seconds to vaporize the metals of the third group. The samples of silicon carbide in the form of 2-4-mm crystals, were analyzed by a similar technique, because of the failure to get results by Morrisson and Rupp's method ("Silicon Carbide, a high temperature semiconductor", Pergamon Press, 1960). It was found that at 1850C nearly all the Fe, Cu, Mn, Pb, P, and Sb were distilled out within 3 minutes. The average quadratic relative error of a single determination of the impurities was 20-25%. L. M. Ivantsov and B. I. Kostin participated in the construction of the evaporator. Orig. art. has: 3 charts

ASSOCIATION: Institut metallurgii im. A. A. Baykova (Institute of Metallurgy)

SUBMITTED: 00 DATE ACQ: 26Feb64 ENCL: 00

SUB CODE: ML NO REF SOV: 004 OTHER: 002

Card 2/2

ZELENTSOV, V. V.; KALINNIKOV, V. T.

Magnetic susceptibility of vanadyl compounds with carboxylic acids. Dokl. AN SSSR 155 no. 2:395-397 Mr '64. (MIRA 17:5)

1. Moskovskiy fiziko-tekhnicheskiy institut. Predstavleno akademikom V. I. Spitsynym.

KALINNIKOV, V.T.; ZELENTSOV, V.V.; VOLKOV, M.N.; SHOSTAKOVSKIY, S.M.

Certain features of the infrared absorption spectra of vanadyl compounds with carboxylic acids. Dokl. AN SSSR 159 no.4:882-884 D '64 (MIRA 18:1)

1. Moskovskiy fiziko-tekhnicheskiy institut. Predstavlena akademikom V.I. Spitsynym.

ZELENTSOV, V.V.; KALINNIKOV, V.T.; VOLKOV, M.N.

Magnetochemistry of vanadyl salts with dicarboxylic acids.
Zhur. neorg. khim. 10 no.6:1506-1507 Je '65.
(MIRA 18:6)

KALINNIKOV, Ye.I., dots.; zasluzhennyy vrach RSFSR (Saratov)

Conservative steps in induced abortion. Kaz.med. zhur. 4:36-38 Jl-Ag'63 (MIRA 17:2)

KALINNIKOV, Ye. S.:

KALINNIKOV, Ye. S.: "The effect of refractory materials in the linings of ladles and sluiceways on the contamination of ballbearing steel with nonmetallic inclusions". Moscow, 1955. Min Higher Education USSR. Moscow Order of Labor Red Banner Inst of Steel imeni I.V. Stalin, Chair of Electrometallurgy of Steel and Ferroalloys. (Dissertations for the Degree of Candidate of Technical Sciences).

SO: Knizhnaya letopis' No. 44 29 October 1955. Moscow.

KALINNIKOV, Ye. S.

7752

INFLUENCE OF THE REFRACTORY MATERIALS OF STEEL-POURING DEVICES ON THE CONTAMINATION OF STEEL WITH NON-METALLIC INCLUSIONS. E. S. Kalinnikov and A. M. Samarin. p 3-29 in Meetings of the Division of Technical Sciences. Session of the Academy of Sciences of the U.S.S.R. on the Peaceful Use of Atomic Energy. July 1-3, 1955. Moscow. Publishing House of the Academy of Sciences of the U.S.S.R., 1955. 339p. (In Russian)

In search of a refractory which would be stable against the action of steel and slag, and suitable as a lining material for steel-pouring devices, the influence of ladle and launder linings made of chamotte, kaolin and high alumina brick was studied. In preparing these linings the radioactive isotope Ca^{45} was introduced into the composition of all three types of fireclay brick, taking care to distribute it evenly throughout both the chamotte grains and the binder. The ball-bearing steel used was smelted in 20-ton basically lined furnaces and was bottom poured. The influence of the refractories of the ladle and launder linings on the contamination of the steel with non-metallic inclusions was determined from the results of measuring the activity of the non-metallic inclusions after isolating them by electrolytic dissolution. Besides this, the usual methods of investigation were also used.

It was found that the amount of exogenic inclusions in relation to the total non-metallic inclusion content depends on the composition of the refractory material the ladle lining is made of. A chamotte lining accounts for an average of 4.1% of the total content of non-metallic inclusions in the steel, a kaolin lining—for 2.7%, and a high alumina—for 1.6%. There exists a direct connection between the content of exogenic inclusions due to the destruction of the ladle lining, the average oxide inclusions number, and the amount of specimens with an oxide number over 3.0. The stability of chamotte brick to slagging is five times as low as that of high-alumina brick and twice as low as that of kaolin brick. High-alumina brick may be considered the best of the refractories studied for lining ladles. The launder lining has little influence on the contamination of the steel. (auth)

KALINNIKOV, E. S. (Engr.); SAMARIN, A. M.;

"The Effect of Ladle and Groove Lining upon the Clogging of Ball Bearing Steel by Impurities," in the book The Application of Radioisotopes in Metallurgy, Symposium XXXIV; Moscow; State Publishing House for Literature on Ferrous and Nonferrous Metallurgy, 1955.

A. M. SAMARIN, Member, Acad. of Sci. USSR; E. C. Kalinnikov, Engr./Chair of Electro-Metallurgy, Moscow Inst. of Steel im I. V. Stalin.

KALINNIKOV, Ye., referent.

Vacuum degassing of steel in the production of large forgings. (From "Stahl und Eisen", no.2, 1956). Stal' 16 no.9:854-858 S '56. (MLRA 9:11)
(Germany, West--Steel--Metallurgy)

KALINNIKOV, Ye.S., kandidat tekhnicheskikh nauk; SAMARIN, A.M.

Effect of temperature and the technology of smelting roller-bearing steel on the content of nonmetallic inclusions. Sbor. Inst. stali no.35:290-297 '56. (MLRA 10:8)

1. Kafedra elektrometallurgii. 2. Chlen-korrespondent AN SSSR (for Kalinnikov).

(Bearing metals) (Steel--Defects)

Kalinnikov, Ye. S.

133-10-7/26

AUTHOR: Smolyakov, V. F., Kalinnikov, Ye. S. and Potapov, V. D.

TITLE: Contamination of Ball Bearing Steel by Refining Slag. (Zagryazneniye Sharikopodshipnikovoy Stali Rafinirovochnym Shlakom).

PERIODICAL: Stal', 1957, No.10, pp. 893-898 (USSR).

ABSTRACT: Using the method of tagged atoms an attempt was made to establish the intensity of contamination of steel ШХ15 by refining slag and to determine the influence of exogennic inclusions formed by the emulsification of slag in metal on the metal quality. Steel ШХ15 was produced in basic arc furnaces operating with solid charge of 55-57 tons. During the oxidation period from 0.26 to 0.52% of carbon was usually removed with a velocity of 0.35%/hr. The metal was deoxidised with coke and then with ground 75% ferrosilicon. Before deoxidation slag contained not less than 2% of calcium carbide. 2.-3 min before tapping aluminium was added (0.4 kg/ton). The metal was tapped with slag containing not more than 0.8% of calcium carbide. After retention in the ladle, steel was bottom poured into 2.8 ton ingots. Teeming conditions are given in Table 1. Radioactive Ca^{45} in the form of CaO was introduced into

Card 1/4

Contamination of Ball Bearing Steel by Refining Slag.

slag 30-65 min before tapping. The consumption of Ca^{45} was 355-537 m.curie per heat. The uniformity of the distribution of Ca^{45} in slag was tested and found to be satisfactory (Table 2). Before tapping slag samples were taken for chemical analysis (Table 3) and determination of viscosity using a Nekhedzi-Samarin viscosimeter (depth of penetration of slag into a narrow channel). To check on the possibility of purification of steel during bottom pouring, samples of pouring refractories from some heats were taken for radiometric measurements. During teeming of metal of some heats samples from the rising surface of the metal in mould were frozen on to a steel rod. After rolling of the metal from experimental heats in to 120mm rounds or 140 x 140mm squares, templets were cut out corresponding to 80, 60, 40 and 2% of the ingot height (counting from the bottom). Templets were forged to squares 90 x 90mm from which specimens were cut out (as shown in Figure 1) for metallographic investigation, electrolytic separation of non-metallic inclusions and determination of the content of oxygen. Experimental results assembled in tables 4-6 and figures 2,3, indicated that the method used for the determination of the content of exogennic inclusions (emulsification

Contamination of Ball Bearing Steel by Refining Slag.

of refining slag during tapping) confirmed the possibility of contamination of steel by slag during tapping from an electric furnace. The content of slag inclusions in the rolled product reached in the individual cases 0.001% or about 10% of the total content of stable inclusions in steel ШХ15. A direct relationship between the content of exogennic inclusions and the total content of oxide inclusions was established. On tapping with a basic slag of increased viscosity the contamination of steel by non-metallic inclusions is lower than with a fluid slag of similar composition. A part of slag inclusions is removed during teeming in casting refractories and during the filling of ingot moulds. No differences were found in the content of oxide inclusions in steel either from different mould seats or on different levels of the ingot height. The following participated in the work: V.V. Kurganov, V. A. Kamardin, A. N. Porada, E. P. Moskalenko, L. B. Kissina, L. I. Khristoforova and V. I. Kirsanova. There are 6 tables, 3 figures and 6 references, 4 of which are Slavic.

133-10-7/26

Contamination of Ball Bearing Steel by Refining Slag.

ASSOCIATION: Dneprospetstal' Works and the Institute of Metallurgy of the Academy of Sciences of the USSR. (Zavod Dneprospetsstal' i Institut Metallurgii AN SSSR).

AVAILABLE: Library of Congress

Card 4/4

KALINNIKOV Ye. S.

24(8) PHASE I BOOK EXPLOITATION SOV/2117

Soveshchaniye po eksperimental'noy tekhnike i metodam vysokotemperaturnykh issledovaniy, 1956

Eksperimental'naya tekhnika i metody issledovaniy pri vysokikh temperaturakh; trudy soveshchaniya (Experimental Techniques and Methods of Investigation at High Temperatures; Transactions of the Conference on Experimental Techniques and Methods of Investigation at High Temperatures) Moscow, AN SSSR, 1959. 789 p. (Series: Akademiya nauk SSSR. Institut metallurgii. Komissiya po fiziko-khimicheskim osnovam proizvodstva stali) 2,200 copies printed.

Resp. Ed.: A.M. Samarin, Corresponding Member, USSR Academy of Sciences; Ed. of Publishing House: A.L. Bankvitser.

PURPOSE: This book is intended for metallurgists and metallurgical engineers.

COVERAGE: This collection of scientific papers is divided into six parts: 1) thermodynamic activity and kinetics of high-temperature processes 2) constitution diagram studies 3) physical properties of liquid metals and slags 4) new analytical methods and production of pure metals 5) pyrometry, and 6) general questions. For more specific coverage, see Table of Contents.

Experimental Techniques and Methods (Cont.) SOV/2117

The largest number of samples showing radioactivity consisted of those ingots with the shortest holding time after teeming. The smallest number of such samples were those which were held for a period of 1-11/4 hours after teeming. In cases of identical holding time, the greatest radioactivity was observed in those ingots which had been heated with hot-topping additions of carbon black and chamotte, and the least in those for which the addition was "lyunkerit", a thermit-type mixture. Thus it was shown that the depth of penetration depends on the holding time after teeming and on the type of hot-topping addition.

Card 29/32

4

ДЕГАЗАЦИЯ СТАЛИ И СПЛАВОВ

М.А.Шумилов, П.В.Гельд, Ф.А.Сидоренко	Некоторые особенности процесса рассыпания ферросилиция.
Р.А.Рябов, П.В.Гельд	Влияние углерода на водородопроницаемость [illegible]
Г.Н.Окороков, А.Ю.Поляков, А.М.Самарин	Особенности раскисления стали при дуговом вакуумном переплаве.
А.М.Самарин, М.П.Кузнецов, Д.П.Ульянов, Л.М.Новик, А.И.Лузутин	Повышение качества шарикоподшипниковых сталей методом вакуумной обработки в ковше.
Г.Н.Ойкс, И.Н.Ахмедов, Г.А.Семенов, В.Н.Даниляк, В.З.Ксенонов	Новая технология производства шарикоподшипниковой стали с применением вакуума.
П.Я.Агеев, В.Г.Чернов	Влияние легирующих на поведение кислорода и азота при плавке его в вакууме.
И.В.Палью, Э.И.Серафимский	Влияние технологических факторов вакуумной дуговой плавки на содержание газов и неметаллических включений в [illegible] стали.
Т.М.Воробьева, Н.П.Бабакова, Е. С.Калинников	Влияние вакуумирования при разливке на форму и вид включений стали ШХГСН.

17

report submitted for the 5th Physical Chemical Conference on Steel Production, Moscow-- 30 Jun 1959.

APPROVED FOR RELEASE: 08/10/2001 CIA-RDP86-00513R000620110019-1"

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[illegible]
[illegible]-10-14/[illegible]

AUTHORS: Vorob'yeva, T. M., Zabaluyev, I. P., Kalinnikov, Ye. S., Trogubenko, A. F.

TITLE: Effects of Vacuuming on the Quality of 30KhGSNA and ShKh15-Type Steels

PERIODICAL: Stal', 1959, Nr 10, pp 904-907 (USSR)

ABSTRACT: At "Dneprospetsstal'" Plant (zavod "Dneprospetsstal'") experimental vacuuming was conducted by Bobkov, T. M., Shamil', Yu. P., Parkhomenko, G. P., Shabli, N. M., and Men', A. N., according to the following methods: (1) 10 melts, at normal rimming with a minimum oxidation of 0.50% C and ladle pouring, placed in a vacuum chamber; (2) 10 melts, at maximum oxidation of 0.31% C during rimming, otherwise treated as above; and (3) 8 melts poured without vacuuming. The authors draw the following conclusions based on experimental data: (1) Vacuum treatment of molten metal at 4 to 5 t/min speed of entering vacuum chamber lowers hydrogen content. In 30KhGSNA-steel specimens molten within a limited rimming period

Card 1/2

Effects of Vacuuming on the Quality of 30KhGSNA and ShKh15-Type Steels

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SOV/133-59-10-14/39

and poured at 28 mm mercury column the hydrogen content dropped by an average 16%; in melting with normal rimming and pouring at 26 mm mercury column it dropped 18%. In steel-ShKh15 specimens poured at 20 mm mercury column a 24% decrease of hydrogen was observed. (2) The quality of 30KhGSNA steel, especially in respect to impact toughness, improved in pouring under vacuum at a residual pressure of 26 to 28 mm mercury column. (3) In pouring at residual pressure of about 20 mm mercury column the quality of ShKh15 steel shows no improvement in regard to nonmetallic inclusions. (4) Decreased oxidizing period in melting 30KhGSNA steel by a reduction of the quantity of oxidizing carbon from 0.50 — 0.70 to 0.20 — 0.30% does not increase gas saturation or impair quality, and even promotes impact characteristics. There are 4 tables; and 3 Soviet references.

Card 2/2

18.3200

7994
SOV/133-59-10-15/39

AUTHOR: Kalinnikov, Ye.

TITLE: Development of Vacuum Treatment in Mass Production of Steel

PERIODICAL: Stal', 1959, Nr 10, pp 908-910 (USSR)

ABSTRACT: Review of developments in West Germany in the above field. There are 8 figures; 1 table; and 4 references, 3 German, 1 U.S. The U.S. reference is: Journal of Iron and Steel Institute, Vol 191, 1959, p 3, pp 260-265.

Card 1/1

S/148/61/000/002/003/011
A161/A133

AUTHORS: Kalinnikov, Ye. S., Zabaluyev, I. P.

TITLE: The problem of hydrogen content in alloyed electric steel

PERIODICAL: Izvestiya vysshikh uchebnykh zavedeniy, Chernaya metallurgiya, no. 2, 1961, 45 - 50

TEXT: The results of previous work [Ref. 1: Trudy NTO ChM(NTO ChM works), vol. XVIII, Metallurgizdat, 1957, 572 - 575; Ref. 2: T. M. Vorob'yeva, I. P. Zabaluyev, Ye. S. Kalinnikov, A. F. Tregubenko, "Stal'", 1959, no. 10, 904 - 907] are brought into a system in this article. The subject investigation consisted in melting several machinery and bearing steel grades in 25 - ton electric furnaces with basic lining and treating in a vacuum in two different ways. From a total of 100 melts one third was poured as usual at the plant, and the remainder was vacuum treated: 1) By placing the ladle with the liquid steel and the ordinary slag quantity into a vacuum chamber, closing the chamber and evacuating; holding in the vacuum for 12 min; 2) Pouring the steel from one ladle into the other in a vacuum chamber at a rate of 4 - 5 ton/min. In the second method aluminum was added not as usual in the furnace, but after degassing the metal. It was consider-

Card 1/3

The problem of hydrogen content in alloyed electric steel

ed that a variation of the chemical composition of steel has practically no effect on the hydrogen solubility, therefore all melts may be considered as iron melts containing hydrogen that dissolves following the square root law. The hydrogen absorption by a steel bath under slag on the surface was calculated using the H. Epstein et al. formula [Ref. 5: H. Epstein, J. Chipman, N. Grant. J. Metals, 9, 1957]. It was stated that a direct relation really exists between the hydrogen content in the steel and the air humidity. The considerable scattering of these data is explained by different factors including the different humidity of ore and lime that absorbed humidity from ambient air. Only 9% hydrogen liberated in vacuum from one steel grade in ladle, and 24% from another grade repoured from ladle to ladle, but it was not possible to compare the effect in figures, for hydrogen liberation depends not on the pressure and degassing conditions only but on the equilibrium state of metal as well. A direct interdependence was revealed between the hydrogen quantity liberated in the vacuum from a ladle at a given temperature and time, and the initial hydrogen content and residual pressure in the vacuum chamber. It is expressed by the empirical formula

$$\Delta H_{real} = 0.44\,\Delta H_{theor} - 0.33 \qquad (4)$$

The analogous correlation stated at repouring in vacuum was

The problem of hydrogen content in alloyed electric steel

$$\Delta H_{real} = 0.99\ \Delta H_{theor} - 0.57 \qquad (5)$$

Both these formulas are not accurate but reflect well the relative effect of different vacuum treatment. Conclusions: 1) The effect of vacuum treatment with repouring on hydrogen liberation from well-deoxidized alloyed electric steel is more than double comparing with vacuum treatment in the ladle. The effect of vacuum treatment in the ladle can be improved by radically changing the deoxidization practice. 2) The hydrogen content in electric steel before tapping from the furnace depends directly on the humidity of ambient air. 3) The hydrogen content in electric steel practically does not change during pouring from the furnace into the ladle. There are 3 figures and 9 references: 5 Soviet-bloc and 4 non-Soviet-bloc. Two references to English-language publications read as follows: H. Epstein, J. Chipman, N. Grant, J. Metals, 9, 1957; R. T. Turkdogan, L. S. Davis, L. E. Lenke, L. G. Stevens. J. Iron Steel Inst., 1955, 181, 123 - 128).

ASSOCIATION: Tsentral'nyy nauchno-issledovatel'skiy institut chernoy metallurgii (Central Scientific Research Institute of Ferrous Metallurgy)

SUBMITTED: December 16, 1959

Card 3/3

VOINOV, Semen Georgiyevich; SHALIMOV, Anatoliy Georgiyevich; KOSOY, Leonid Fineasovich; KALINNIKOV, Yevgeniy Sergeyevich; VENETSKIY, S.I., red. izd-va; MIKHAYLOVA, V.V., tekhn. red.

[Steel refining in the ladle by means of liquid synthetic slag] Rafinirovanie stali v kovshe zhidkim sinteticheskim shlakom. Moskva, Gos.nauchno-tekhn.izd-vo lit-ry po chernoi i tsvetnoi metallurgii, 1961. 110 p. (MIRA 15:1)
(Steel--Metallurgy)

PHASE I BOOK EXPLOITATION SOV/6038

Kalinnikov, Yevgeniy Sergeyevich

Vakuum v proizvodstve stali (Vacuum in Steel Making) Moscow, Metallurgizdat, 1962. 159 p. Errata slip inserted. 3750 copies printed.

Ed. of Publishing House: M. L. Borodavkin; Tech. Ed.: Ye. B. Vaynshteyn.

PURPOSE: This book is intended for engineering personnel of steel melting shops and plant laboratories. It may also be useful to scientific research workers and students specializing in metallurgy.

COVERAGE: The book reviews the methods of vacuum treatment of molten steel as applied on a large scale at Soviet and non-Soviet plants. Designs of vacuum units and principles of their operation are presented along with basic information on vacuum equipment and instruments for ensuring the control of operations. The effect of vacuum treatment on the quality of structural,

Card 1/4 3

transformer, ball-bearing, rail, rimmed, and other steels is discussed in detail. Scientific fundamentals of vacuum metallurgy are outlined in brief. No personalities are mentioned. There are 89 references: 59 Soviet, 23 German and 7 English.

TABLE OF CONTENTS:

Card 2/4 3

KALINNIKOV, Ye. S.

4

S/133/62/000/003/001/006
A054/A127

AUTHORS: Voinov, S. G., Kosoy, L. F., Shumov, M. M., Shalimov, A. G., Chekhomov, O. M., Andreyev, T. B., Afanas'yev, S. G., Kalinnikov, Ye. S.

TITLE: Refining converter steel with liquid synthetic slag in the ladle

PERIODICAL: Stal', no. 3, 1962, 226 - 232

TEXT: The good results obtained in refining electric steels with liquid lime-aluminous slag led to pilot-plant tests with converter steels, using the same method. 111 heats were smelted in a basic 8-ton converter; 46 of them were refined in the ladle with liquid synthetic slags of the following composition (in %):

Card 1/5

Refining converter steel with...

S/133/62/000/003/001/008
A054/A127

Steel grade	Number of heats	CaO	Al_2O_3	SiO_2	MgO	FeO	Cr_2O_3
ШХ15 (ShKh15)	6	55.26 / 53.04	42.73 / 41.47	1.90 / 3.85	0.79 / 0.80	0.83 / 0.90	0.30 / 0.17
12ХН3А, 08Н3 (12KhN3A), (08N3)	5	52.49 / 49.82	42.46 / 36.94	2.02 / 5.06	0.78 / 0.82	0.90 / 7.69	0.94 / 0.92
СГВ (SGV) (deep drawing steel)	7	53.10 / 51.37	44.22 / 38.34	2.19 / 4.52	0.75 / 0.93	0.65 / 4.05	0.23 / 0.23
И (I) (tool, carbon, cable, rail, axle steel)	14	53.58 / 52.51	44.08 / 40.92	2.06 / 3.61	0.69 / 0.72	0.70 / 1.75	0.15 / 0.13

(numerator: composition prior to metal treatment; denominator: composition after the treatment). The slag was melted in a 3-ton arc furnace, with hearth and banks of carbon blocks and carbon packing. The slags differed from those used for electric steels in that they contained more silica, ferrous oxides and

Card 2/5

chrome oxides. To maintain the fluidity and reactivity of the slag under the test conditions, its quantity was increased to 6.5% of the metal weight, the temperature of the liquid slag in the furnace was raised to 1,750 - 1,850°C and the interval between pouring the slag and tapping the metal was reduced (to 2 min. 5 sec. on the average). The ladle was preheated to 600 - 800°C prior to slag tapping. The basic slag forming additives were common open-hearth lime (with up to 0.2% S), bauxite and in some cases (for medium-carbon and high-carbon steel grades) fluorite. Lime was added in two batches; prior to pouring the cast iron and 4 - 5 minutes after blowing started; the other two components were added together with lime. The quantity of the latter used for alloy and high-grade steels was 8 - 9%, for rail and axle steel 6 - 7% of the charge weight. ShKh15, 12KhN3A, 06N3 grades, deep-drawing steel and carbon (tool) steels were cast with fluorite (0.3 - 0.8% of the charge weight; the slag was tapped twice.) To determine the optimum cast iron composition, cast irons with components varying greatly in amount were used (0.28 - 0.78% Si, 0.50 - 1.80% Mn, 0.025 - 0.095% S, 0.08% - 0.220P). The slags were very active already at the beginning of blowing. The basicity of slags ($CaO:(SiO_2+P_2O_5)$) increased progressively (5 - 5 1/2 minutes after blowing started it was 2.0, at the end of blowing: 3.0 - 4.0). The synthetic slag refining method in converters with oxygen top blast results in a

S/133/62/000/003/001/008
A054/A127

Refining converter steel with...

high degree of desulfuration. When cast irons are processed with a high (0.085 - 0.095%) sulfur content, this could be reduced to 0.030 - 0.042% during blowing and to 0.009 - 0.013% after slag treatment. Desulfuration is most effective in the У10- У13А (U10-U13A) grades (up to 72.8%), in axle steel (71.9%) and Sh2Ch15 steel grade (67.8%). The final phosphorus content of steel can also be reduced to 0.020 - 0.030% by slag treatment, even if made of cast iron containing 0.22% phosphorus. The synthetic slag method reduces the content of oxygen and non-metallic inclusions (sulfides, oxides) of the steel. Converter structural steel grades, refined by synthetic slag, have a greater ductility and notch toughness (mainly across the fibre), than conventional converter, open-hearth and electric steels. Most probably, the ductility is improved by the effect of the synthetic slag emulsion on the metal which reduces the sulfur content and non-metallic inclusions; a sub-microscopic silicium-oxygen phase may also have some effect. Slag-refined converter axle steels displayed a high ductility at -20°, -40° and -60°C, the new refining method imparts the 06N3 cold-resistant converter steel at 150 - 183°C the same degree of frost-resistance as found in electric steels. The tests were carried out with A. N. Korneyenkov, G. V. Gurskiy, Ya. N. Bokshitskiy, A. K. Petrov, Ye. D. Mokhir, R. I. Kolyasnikova, G. A. Khasin, V. P. Danilin,

Card 4/5

S/133/62/000/003/001/006
A054/A127

Refining converter steel with...

P. S. Plekhanov, A. I. Mazun, and A. A. Markin participating. There are 3 figures, 9 tables and 2 Soviet-bloc references.

Card 5/5

VOINOV, S.G.; KALINNIKOV, Yu.I.; TOPIL'SKIY, P.V.; BOBKOVA, O.S.; KUKLEV, V.G.; ZAYKO, V.P.; KOSOY, L.F.; SHALIMOV, A.G.; Prinimali uchastiye: IOFFE, V.N.; CHABOVENKO, N.I.; IVANCHENKO, [illegible]KOVA, N.A.

Developing a procedure for the making of limestone and alumina semifinished products for the preparation of synthetic slag. Stal' 22 no.2:128-132 F '62. (MIRA 15:2)

(Slag)
(Electric furnaces)

S/133/63/000/003/001/007
A054/A126

AUTHORS: Kalinnikov, Ye.S., Efros, D.I., Borodets, I.V.

TITLE: The application of synthetic slag to refining steel melted in 50--ton open-hearth furnaces

PERIODICAL: Stal', no. 3, 1963, 207 - 212

TEXT: The method was tested for Ос.Л (Os.L) axle steel, 40А (40A), 20Х2Н4А (20Kh2N4A), 20, 40Х (40Kh) and 20Х (20Kh) grades in a 50-ton basic open-hearth furnace. Besides the slag addition the conventional technology was modified in that the content of S and Mn was not controlled during melting; for reduction in the ladle 45-% ferrosilicon was used instead of the 75-% grade and less aluminum was added into the ladle for the Os.L, 40A and 20Kh2N4A grades, while for the remaining grades no aluminum was used at all. Ferrosilicon was fed on the ladle bottom, the ladle was then heated and synthetic slag amounting to 5% of the liquid metal with a temperature of at least 1,650°C was fed in. Pouring time 2 - 5 min, pouring height 3.5 - 1.0 m. These conditions ensure a thorough mixing of metal and slag in the ladle. The synthetic lime-aluminoferrous slag

Card 1/2

The application of synthetic slag to ....

was melted in a 5-ton arc furnace (at 2,800 kw transformer capacity). The composition of the synthetic slag and its changes during melting the above-mentioned grades are given in a table. Samples from the ladle contained 0.014% S as against 0.025 - 0.039% in the conventional process. The burning out of silicon was also reduced from 19.3 and 15.1 to 14.3 and 10.5% (for the Os.L and 40A grades, respectively). Synthetic slag refining promotes reduction: for the Os.L grade samples, usually containing in forged condition 0.002 - 0.006% O_2, the oxygen content was found to be between 0.002 and 0.004%. The macrostructure of the test steels proved flawless and their content of nonmetallic inclusions decreased. The new method does not deteriorate the mechanical characteristics of the test steel; it improves their notch toughness, the a_k-value in transverse specimens increases, for instance, for the Os.L grade from 3.4 to 4.4, for the 40A grade from 3.8 to 5.6 - 5.7 kg/cm^2 and the anisotropy of the structure as to notch toughness is diminished by 30 - 55%. The investigations for the new method were carried out in cooperation with S.G. Voinov, S.I. Yaburov, L.P. Kosoy, A.G. Shalimov, P.A. Serov, T.A. Izmanova, Ya.M. Bokshitskiy, S.I. Kazarin, V.G. Kuklev, A.M. Mamlin, A.I. Lyutov, B.Kh. Vishevnik, P.I. Yegorov, N.M. Tarasov, et al. There are 8 figures and 2 tables.

Card 2/2

KALINNIKOV, Ye.S.

Desulfuration of open-hearth steel by liquid synthetic slag.
Izv. vys. ucheb. zav.; chern. met. 6 no.7:65-69 '63. (MIRA 16:9)

1. TSentral'nyy nauchno-issledovatel'skiy institut chernoy metallurgii.
(Desulfuration) (Open-hearth process)

VOINOV, Semen Georgiyevich; SHALIMOV, Anatoliy Georgiyevich; KOSOY, Leonid Georgiyevich; KALINNIKOV, Yevgeniy Sergeyevich

[Refining metals with synthetic slags] Rafinirovanie metallov sinteticheskimi shlakami. Moskva, Metallurgiia, 1964. 279 p. (MIRA 17:12)

VOINOV, S.G.; KOSOV, L.F.; MOROZENSKIY, A.I.; SAVEL'YEV, D.F.; SHALIMOV, A.G.; KALINNIKOV, Ye.S.; SHATUNOV, S.F.; KIREYEV, B.A.; OKHAPKIN, S.I.; DAVYDOVA, L.N.; IZMANOVA, T.A.

Refining a 100-ton open-hearth heat with a liquid synthetic slag in the ladle. Stal' 24 no.7:599-604 Jl '64.

(MIRA 18:1)

L 42972-65 EWT(m)/EWA(d)/EWP(t)/EWP(z)/EWP(b) JD
ACCESSION NR: AP5008709 S/0133/65/000/003/0232/0235

AUTHOR: Lubenets, I. A.; Zhukov, D. G.; Voinov, S. G.; Shalimov, A. G.; Kogan, L. F.; Kalinnikov, Ye. S.; Chernyakov, V. A.; Yartsev, M. A.; Golikov, Ye. S.; Mysina, G. Ye

TITLE: Synthetic slag refining of steel from large-capacity arc ovens

SOURCE: Stal', no. 3, 1965, 232-235

TOPIC TAGS: steel refining, synthetic slag, ball bearing steel, chromium steel, low impurity steel, arc oven steel

ABSTRACT: During the second half of 1963, one of the electrical steel-smelting enterprises started introducing the refining of steel by means of synthetic lime-alumina slag into industrial use. The present article reports on the preliminary findings concerning the efficiency of this new process. Tests were carried out with a slag-melting OKB-284 oven having an interior diameter of 5350 mm and a 4500 kVA transformer. The wall and cover were made of chromomagnesite while the tank was lined with carbon blocks; the smelting chamber had a diameter of 3000 mm and was 800 mm deep. All pertinent construction and operational data are given

Card 1/2

L 42972-65
ACCESSION NR: AP5008709

in considerable detail. Specifically, 1) the oven produced 2.5 metric tons/hr. of slag; 2) during production of ball-bearing and construction chromium steel, the slag consumption amounted to 2.8-5.0% of the mass of processed metal; 3) the oven consumed about 1420 kWh per metric ton of slag produced; 4) the shortened refining operation decreased the consumption of electrical energy by 30-40 kWh per metric ton of metal, which compensated fully for the energy requirements for the production of slag; and 5) the productivity of the large-capacity electrical ovens was increased by 10-15%. The new method markedly reduced (as shown in several tables presenting the results of impurity determinations) the amount of nonmetallic impurities and improved the plastic properties of the finished product. The technological procedures described should be able, in the future, to improve the quality of the above-mentioned special steels even more and reduce the impurity content even further. "In this work, carried out in conjunction with TsNIIChM, N. V. Keys, V. G. Pegov, Ye. B. Men'shenin, M. A. Barnovalov, G. B. Shirer, M. I. Shatalov, A. A. Molchanova, M. Ye. Anisimova, and others also took part." Orig. art. has: 5 tables.

ASSOCIATION: None

SUBMITTED: 00 ENCL: 00 SUB CODE: MM

NO REF SOV: 001 OTHER: 000

Card 2/2

12

Mikhaylov, Yu.

ACCESSION NR: AP4041869 S/0133/64/000/007/0640/0642

AUTHOR: Gabuyev, G. Kh.; Yel'tsov, K. S.; Shul'te, Yu. A.; Mikhaylov, P. A.; Garevskikh, I. A.; Leybenson, S. A.; Tsivirko, E. I.; Medovar, B. I.; Latash, Yu. V.; Frantsov, V. F.; Pakhomov, A. I.; Kaganovskiy, G. P.; Voinov, S. G.; Shalimov, A. G.; Kalinnikov, Ye. S.; Smolyakov, V. P.; Kosoy, L. F.

TITLE: Improvement of the quality of electroslag-melted ball-bearing steel

SOURCE: Stal', no. 7, 1964, 640-642

TOPIC TAGS: ball bearing steel, electroslag melted steel, high purity steel, steel electroslag melting

ABSTRACT: Several variants of electroslag melting have been tested in an attempt to improve the quality of ball-bearing steel. The analysis of electroslag-melted steel showed that nitrides and carbonitrides constitute the greatest part (up to 75%) of the nonmetallic inclusions present in the steel. These nitrides derive from the initial material. The electroslag process eliminates large nitrides over 20μ in diameter, but does not eliminate the smaller ones.

Card 1/3

ACCESSION NR: AP4041869

Therefore, the nitrogen and titanium contents of the initial metal must be reduced to a minimum. This can be done, for example, by refining the metal in the ladle with synthetic slag. Electroslag melting of open-hearth steel refined with synthetic slag eliminated all the inclusions larger than 10μ and reduced the number of smaller inclusions by more than 50% and the nitrogen and oxygen contents to 0.0053 and 0.0020%, respectively. To produce ultra-high purity ball-bearing steel, the double electroslag melting was applied with a combination of various fluxes. The use of ANF-6-ANF-6 fluxes in double electroslag melting or of AN-29-ANF-6 fluxes produced best results. Ultra-high purity steel, fully satisfying requirements for critical ball bearings, was obtained. Orig. art. has: 2 figures.

ASSOCIATION: Dneprospetsstal' (Dneprospetsstal' plant); Zaporoshskiy mashinostroitel'nyy institut (Zaporosh Machine-Building Institute); Institut elektrosvarki im Ye. O. Patona (Electric Welding Institute); TsNIICHM

Card 2/3

KALINNIKOVA, M. N.

11F

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Content of riboflavin in the urine and the milk of lactating mothers. M. N. Kalinnikova. *Voprosy Pital.* (*Okhrany Materinstva i Detstva* 16, No. 5, 33-4(1948). Av. level of riboflavin in the milk was found to be 23.6 γ % (limits 10-46.6); av. daily urinary excretion 455.6 γ (variation from 94 to 930). Daily administration of 50 g. yeast (1.8 mg. B_1) over 10 days increased urinary excretion to 680 γ (from 101) and milk level to 48 γ % (from 28). G. M. Kosolapoff

A.S.M. S.L.A. METALLURGICAL LITERATURE CLASSIFICATION

APPROVED FOR RELEASE: 08/10/2001 CIA-RDP86-00513R000620110019-1"

MOROZENKO, M.A.; BARYSHEVA, A.E.; TIMOFEYEVA, G.A.; BYSTRYAKOVA, L.V.; KALINNIKOVA, O.N.

Diagnostic value of the complement fixation reaction in viral respiratory infections of infants. Acta virol. (Praha)[Eng] 7 no.6:534-541 '63.

1. Institute of Experimental Medicine, U.S.S.R. Academy of Medical Sciences, and The Leningrad Institute of Pediatrics, Leningrad U.S.S.R.

(COMPLEMENT FIXATION TESTS)
(RESPIRATORY TRACT INFECTIONS)
(INFLUENZA) (MYXOVIRUS INFECTIONS)
(ADENOVIRUS INFECTIONS) (ECHO VIRUSES)
(COXSACKIE VIRUS INFECTIONS)

KALINNIKOVA, T. A.

PALIMPSESTOV, S.A. (Chief Veterinarian, Samilov rayon, Saratov oblast) and KALINNIKOVA, T. A. (Director of the Rayon Veterinary Hospital). Use of kerosine in tympanites of cattle.

So: Veterinariya; 23; 7; July 1946; Uncl.
TABCON

KALINOV, Angel

Cell and its individual development. Priroda i zanie 15 no.10:6-7 D '62.

KALINOV, Angel G.

Philogenesis and onotgenesis of the cell. Priroda Bulg 13 no.6:31-35 N-D '64.

KALINOV, B.

Results from our experiments with preplanting treatment of cottonseed. p.29. House for cultivating plants. p.30. On the new road. p.31. (Kooperativno Zemedelie Vol. 10, no. 8, Aug. 1955, Sofiya)

SO: Monthly List of East European Accessions, (EEAL). LC, Vol. 4, No. 11, Nov. 1955, Uncl.

KALINOV, B.

BULGARIA/Cultivated Plants - Technical Oleaceae, Sugar Plants M-7

Abs Jour : Ref Zhur - Biol., No 1, 1958, No 1665

Author : V. Stankulova, B. Kalinov
Inst : Not Given
Title : The Width Between Rows During Sunflower Sowing.

Orig Pub : Kooperat. zemledeliye, 1957, No 3, 31 (Bulgaria)

Abstract : No abstract

Card : 1/1

L 41643-65 EWP(j)/EWT(m) Pc-4 RM

ACCESSION NR: AP5006661 S/0065/65/000/003/0060/0062

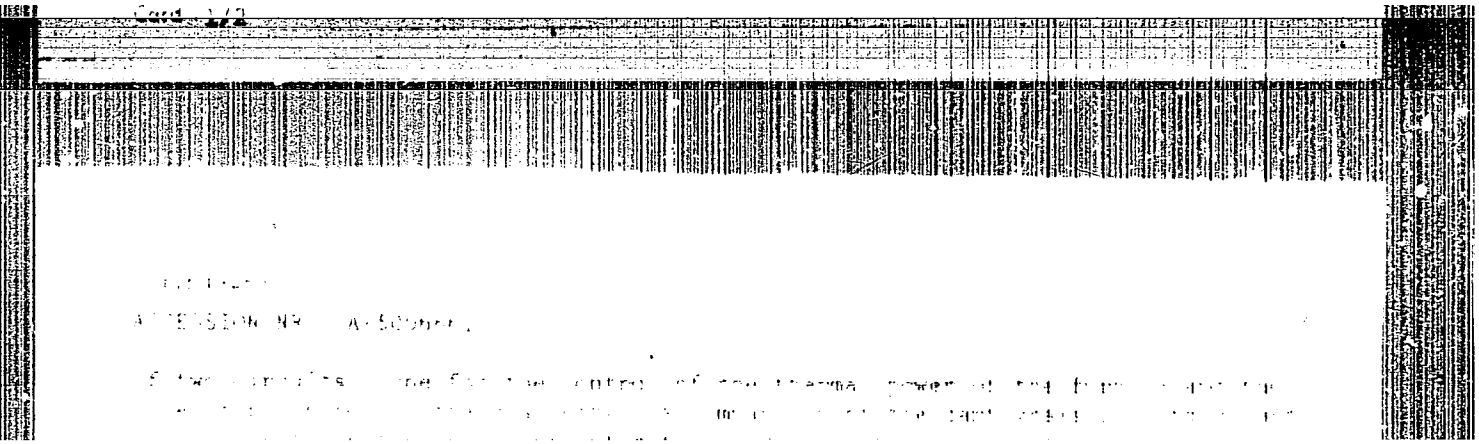
AUTHOR: Kozlov, M. V.; Pivovarov, A. T.; Kalinov, B. P.

TITLE: Automatic control of product viscosity

SOURCE: Khimiya i tekhnologiya topliv i masel no. 3, 1965, 59-62

TOPIC TAGS: viscosity, viscosimeter, automatic control, mathematical model

ABSTRACT: The Gronzny affiliate of NIPI "Neftekhimavtomat" has used the Gronzny



ASSOCIATION: Groznenskiy filial NIPI "Neftekhimavtomat" (Grozny Affiliate of NIPI "Neftekhimavtomat"

SUBMITTED: 00 ENCL 00 SUB CODE: IE, MM
NO REF SOV: 003 OTHER: 000

Card 2/2

KALINOV, I.R.

Oil in China. Azerb. neft. khoz. 40 no.1:47-48 Ja '61.
(MIRA 14:8)
(China--Petroleum industry)

KALINOV, K.

Metal Economy (from the experience of the "G. DIMITROV." Metallurgical State Plant (Metalworks) at RUSE. The Bulgarian Heavy Industry, 6:53:June 55

KALINOV, S.R.

Reducing the time of seasoning panel furniture parts. Der. prom. 6 no.2:26-27 F '57. (MLRA 10:4)

1. Fabrika "Krasnyy Oktyabr'".
(Furniture industry) (Lumber--Drying)

KALINOV, S.R.

Our practices for varnishing pianos. Der.i lesokhim.prom. 3 no.5:21-24 My '54. (MLRA 7:6)

1. Nachal'nik laboratorii fabriki "Krasnyy Oktyabr'".
(Piano) (Varnish and varnishing)

KALINOV T.

(22)

Sofia, Doklady Bolgarskoy Akademii Nauk, Vol 15, No 1, 1962 (cont)

11. "The Influence of Aluminum Sulfate on the Formation of Soot Carbon and the Extraction of Metallic Iron in the Reduction of Ferric Oxide and Iron Ores with Carbon Oxide," A. [illegible] of the Institute of General and Inorganic Chemistry of the Bulgarian Academy of Sciences; article in Russian; pp 45-48.

12. "The Reduction of Organic Compounds with Magnesium or Zinc in Liquid Ammonia," Kh. IVANOV and P. MARKOV of the Department of Organic Chemistry of the University of Sofia; article in German; pp 49-52.

13. "Concerning the Extraction of Needle-shaped Gamma-Ferric Oxide," P. PESHEV, S. [illegible], and I. [illegible] of the Scientific Research Institute for Roentgenography and Radio; article in German; pp 53-56.

14. "On the Absorption of Chlorine Ions on Silver Surfaces," G. [illegible] and T. LAZAROV; article in English; pp 57-60.

15. "The Semiconductor Properties of Certain Cobalt-Oxide Catalysts and the Catalytic Oxidation of Ammonia," S. [illegible], D. [illegible], and T. [illegible]; article in Russian with English summary; pp 61-64.

16. "Integrated Indicators on Dryness and Natural Water Supply in Various Irrigation Regions," G. MARKOV of the Institute of Water Economy and Construction, Bulgarian Academy of Sciences; article in English; pp 65-68.

17. "[illegible]--a New Genus of Valanginian Ammonites," T. [illegible]; article in English; pp 69-71.

18. "Certain Peculiarities of the Emulsion Structures in the Blende of the Madzharovo Poly-metal Deposits in the Eastern Rhodopes," A. ATANASOV; article in Russian with English summary; pp 73-76.

19. "The Influence of Temperature Changes and the Acidity of the Medium on the Thermal Stability of Certain Types of Bacteria in Canned Fruits and Vegetables," T. KALINOV; article in Russian; pp 77-80.

20. "On the Role of the Lymphocytes in Immunogenesis," V.L. MARKOV and V.Kh. VULCHANOV of the Department of Immunology, Institute of Microbiology, Bulgarian Academy of Sciences; article in English; pp 81-84.

KALINOV, T.

Effect of temperature changes and medium acidity on thermo-resistance of some types of bacteria found in preserved fruits and vegetables. Dokl. Bolg. akad. nauk 15 no.1:77-80 '62.

1. Predstavleno akad. I. Emanuilovym.
(FOOD PRESERVATION) (VEGETABLES microbiol)
(FRUITS microbiol)

MITCHKIN, A.V., KALINOV, V.I.

Performance of the jet and the intensity of controlled destruction of concrete. Vest. AN Kazakh. SSR 21 no.12. 37-43 D '65. (MIRA 18:12)

L 07986-67 EWT(m)

ACC NR: AP6015407 (A) SOURCE CODE: UR/0031/65/000/012/0037/0043

AUTHORS: Brichkin, A. V. (Corresponding member AN KazSSR); Kalinov, V. A. 59

ORG: none

TITLE: The operating range of a burner and the intensity of directed break-up of concretes 15

SOURCE: AN KazSSR. Vestnik, no. 12, 1965, 37-43

TOPIC TAGS: concrete, ferroconcrete, mineralogy, mining, combustion, gas dynamics, GEOLOGIC INSTRUMENT

ABSTRACT: The technology of concrete cutting and boring by means of a gas burner is discussed. Some general aspects of the process of torch cutting are considered first. The fusion strength of a material is a function of its chemical-mineralogical content and this strength falls sharply with increasing temperature. Previous studies in this field have determined that the rate of the process of boring or cutting is increased by an increase in the burner combustion chamber pressure. The chamber pressure increase is accompanied by increases in the temperature, velocity, and density of the gas stream, thus increasing the coefficient of heat transfer and the jet efficiency. Some of the important parameters to be analyzed in the design and sizing of a torch are discussed, and a schematic diagram of a test torch device having a variable-volume combustion chamber is presented. Tests performed with this device led to these conclusions: 1) the variation of the parameters of the gas flame of a rocket burner by

Card 1/2

L 07996-67
ACC NR: AP6015407

means of a variable-volume chamber permits the determination of the process intensity in various mineral substances; 2) the device facilitates the evaluation of the quality of work of the rocket burner; 3) it allows wide latitude in the study of the construction elements in the burner and various modes of operation, and allows the establishment of the factors for increasing the intensity of the process; 4) the burner with variable size combustion chamber is rationally designed for ore and rock, and for various mineralogical and petrographic substance. Orig. art. has: 3 figures and 11 equations.

SUB CODE: 08, 14/ SUBM DATE: none/ ORIG REF: 007/ OTH REF: 001

Card 2/2

ACC NR: AP6029869 (A, N) SOURCE CODE: UR/0413/66/000/015/0009/0009

INVENTORS: Brichkin, A. V.; Margorin, G. M.; Kalinov, V. A.

ORG: none

TITLE: A device for decrepitating by heat natural and artificial mineral media. Class 5, No. 184199

SOURCE: Izobret prom obraz tov zn, no. 15, 1966, 9

TOPIC TAGS: heat effect, combustion chamber, combustion gas dynamics

ABSTRACT: This Author Certificate presents a device for decrepitating by heat natural and artificial mineral media as described in Author Certificate No. 168220 (see Fig. 1). To produce a smooth regulation of the dynamic parameters of the gas stream, the motion-imparting mechanism is made in the form of a sylphon (with one end rigidly attached to the combustion chamber) and of a piston advancing under the

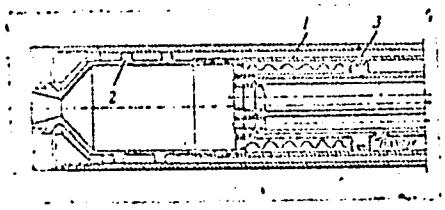


Fig. 1. 1 - sylphon; 2 - combustion chamber; 3 - piston

UDC: 622.243.94

L 09267-67

ACC NR: AP6029869

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pressure of compressed air. The piston is connected to the other end of the sylphon. Orig. art. has: 1 figure.

SUB CODE: 21/ 13/ SUBM DATE: 04Mar65

L 07986-67 EWT(m)

ACC NR: AP6015407 (A) SOURCE CODE: UR/0031/65/000/012/0037/0043

AUTHORS: Brichkin, A. V. (Corresponding member AN KazSSR); Kalinov, V. A. 59

ORG: none

TITLE: The operating range of a burner and the intensity of directed break-up of concretes

SOURCE: AN KazSSR. Vestnik, no. 12, 1965, 37-43

TOPIC TAGS: concrete, ferroconcrete, mineralogy, mining, combustion, gas dynamics, GEOLOGIC INSTRUMENT

ABSTRACT: The technology of concrete cutting and boring by means of a gas burner is discussed. Some general aspects of the process of torch cutting are considered first. The fusion strength of a material is a function of its chemical-mineralogical content and this strength falls sharply with increasing temperature. Previous studies in this field have determined that the rate of the process of boring or cutting is increased by an increase in the burner combustion chamber pressure. The chamber pressure increase is accompanied by increases in the temperature, velocity, and density of the gas stream, thus increasing the coefficient of heat transfer and the jet efficiency. Some of the important parameters to be analyzed in the design and sizing of a torch are discussed, and a schematic diagram of a test torch device having a variable-volume combustion chamber is presented. Tests performed with this device led to these conclusions: 1) the variation of the parameters of the gas flame of a rocket burner by

Card 1/2

L 07986-67
ACC NR: AP6015407

means of a variable-volume chamber permits the determination of the process intensity in various mineral substances; 2) the device facilitates the evaluation of the quality of work of the rocket burner; 3) it allows wide latitude in the study of the construction elements in the burner and various modes of operation, and allows the establishment of the factors for increasing the intensity of the process; 4) the burner with variable size combustion chamber is rationally designed for ore and rock, and for various mineralogical and petrographic substance. Orig. art. has: 3 figures and 11 equations.

SUB CODE: 08, 14/ SUBM DATE: none/ ORIG REF: 007/ OTH REF: 001

Card 2/2

Kalinov, Zh.

BULGARIA/Chemical Technology - Chemical Products and Their Application - Treatment of Natural Gases and Petroleum. Motor and Rocket Fuels. Lubricants. H-23

Abs Jour : Ref Zhur - Khimiya, No 3, 1958, 9271

Author : Dimitrov D., Kalinov Zh.

Inst : Chemical Technological Institute.

Title : Desulfurization of Gasoline Obtained from Tar of Low Temperature Carbonization of Coal with Natural Bulgarian Silicates.

Orig Pub : Godishnik khim.-tekhnol. in-ta, 1955 (1956), 2, No 1, 127-131

Abstract : Laboratory experiments were carried out on catalytic desulrization by means of natural Bulgarian silicates, of gasoline derived from tar obtained in a tunnel furnace on low temperature carbonization of coal of the "Chernoye more"

Card 1/2

7

USSR/Cultivated Plants - Fodder. M.

Abs Jour : Ref Zhur - Biol., No 4, 1958, 15660

Author : G.A. Zubkova, A.V. Kalinova, Z.I. Kartashova, T.I. Prikho'ko

Inst : Stavropol'skiy Agricultural Institute.

Title : The Calcium and Phosphorous Content in Perennial and Annual Grass Hay During the Harvest. (Soderzhaniye kal'tsiya i fosfora v sene mnogoletnikh i odnoletnikh trav po ukosam).

Orig Pub : Sb. nauchn.-issled. rabot stud. Stavropol'sk. s.-kh. in-t, 1956, vyp. 4, 86-88.

Abstract : The Stavropol'skiy Agricultural Institute studied the Ca and P content upon harvesting of alfalfa, sainfoin, wither rye and rye-grass hay. The richest in Ca of the bean bearing grass hay were alfalfa (15.9-20.0 grams

Card 1/2

KALINOVA E

CZECHOSLOVAKIA/Human and Animal Physiology - Metabolism. V-2

Abs Jour : Ref Zhur - Biol., No 4, 1958, 18012

Author : I., Vido, E., Sramekova and E., Kalinova
Inst : -
Title : New Data on the Metabolism of the Bile Pigments.

Orig Pub : Lekar. obzor, 1957, 6, No 6, 342-349

Abstract : A review of the theories of the formation of bilirubin from Hb and in particular of Baumgartel's new conception of the formation of urobilinoids and stercobilinoids, as well as the data of the first clinical experiments with the mesobiliviolin reaction occurring in certain hepatic disorders.

Card 1/1

LUKOMSKAYA, A.I.; ORLOVSKIY, P.N.; MEREZHANNYY, S.B.; STUKALOVA, A.F.; Prinimali uchastiye: SAMOKHODKINA, K.G.; KALINOVA, L.T.; GORINA, A.K.; STULOVA, V.T.

Effect of the surface-to-volume ratio of a test piece in the evaluation of the processing qualities of rubber blends. Kauch. i rez. 20 no. 4:36-42 Ap '61. (MIRA 14:5)

1. Nauchno-issledovatel'skiy institut shinnoy promyshlennosti (for Lukomskaya, Orlovskiy, Merezhannyy, Stukalova).
(Rubber, Testing)

REZNIKOVSKIY, M.M.; LUKOMSKAYA, A.I.; PANIN, G.F.; KALINOVA, L.T.

Practical variant of a method determining the characteristic energy of rubber stripping. Kauch. i rez. 24 no.11:26-29 '65.
(MIRA 19:1)

1. Nauchno-issledovatel'skiy institut shinnoy promyshlennosti.

GAYDAMAK, S., student; SMIRNYAKOVA, G., studentka; KUZ'MINA, E., studentka; LIPOVA, R., studentka; FOMINA, T., studentka; PAVLOVA, N., studentka; KALINOVA, M., studentka; SHCHELKO, A., student; SHCHERBAKOVA, L., studentka; GUDOCHKINA, L.M.

Effect of salinity on the results of determining the specific weight of soils. Sbor. nauch. trud. Kaz GMI no.19:197-198 '60. (MIRA 15:3)

(Soils--Analysis)

KALINOVA, R.S.

Hygienic problems in transporting radioactive isotopes.
Gig. i san. 23 no.10:41-45 O '58 (MIRA 11:11)
(ISOTOPES,
transport containers (Rus))

POSTNIKOV, Vladimir Ivanovich; LETENKO, Viktor Aleksandrovich; TATOCHENKO, L.K., kand.tekhn.nauk, retsenzent; KALINOVA, R.S., retsenzent; SHTAN', A.S., kand.khim.nauk, red.; SEMENOVA, M.M., red.izd-va; EL'KIND, V.D., tekhn.red.

[Efficiency of radiographic control in the manufacture of machinery; applicable to gamma-ray flaw detection] Effektivnost' radioaktivnogo kontrolia v mashinostroenii; primenitel'no k gamma-defektoskopii. Predisl. A.V.Topchieva. Moskva, Gos.nauchno-tekhn. izd-vo mashinostroit.lit-ry, 1960. 143 p. (MIRA 14:4)
(Radioisotopes--Industrial applications)

KLIMOVA, K.N., nauchnyy sotrudnik; KALINOVA, Ye.S.

Effect of withdrawal of various amounts of blood on hemopoiesis and some biochemical indexes of the blood of donors. Akt.vop.perel.krovi no.4:7-9 '55. (MIRA 13:1)

1. Donorskiy otdel Leningradskogo instituta perelivaniya krovi.
(BLOOD DONORS) (HEMOPOIETIC SYSTEM)

KIREYEVA, N.M.; KALINOVA, V.A.

Calculation of the tangential wind stress over the North Atlantic.
Okeanologii 4 no.6:1008-1012 '64. (MIRA 18:2)

1. Institut prikladnoy geofiziki AN SSSR.

KALINOVA, Z.I.; YAKOVLEV, I.I., professor, zaveduyushchiy; ZVEREV, A.F., professor, direktor; MALYSHEVA, R.A., direktor.

TSov'ianov method of conducting labor in breech presentations. Akush.i gin. no.4:37-41 Jl-Ag '53. (MLRA 6:9)

1. Akusherako-ginekologicheskaya kafedra Sverdlovskogo meditsinskogo instituta (for Yakovlev). 2. Sverdlovskiy nauchno-issledovatel'skiy institut okhrany materinstva i detstva (for Malysheva). 3. Sverdlovskiy meditsinskiy institut (for Zverev). (Labor (Obstetrics))

KALINOVICH, BORIS IUL'IANOVICH.

Estestvennye vnutrennie vodnye puti. [Natural inland waterways]. (Trudy Leningradskogo instituta inzhenerov vodnogo transporta, v. 6, 1935). DLC: TC1.L37

SO: Soviet Transportation and Communications, A Bibliography, Library of Congress, Reference department, Washington, 1952, Unclassified.

KALINOVICH, B. Yu.

"Sluices", published by State Publishers of River Transport Literature, Moscow, 1948

KALINOVICH, D.F.

USSR/Electricity - Conductors G-4

Abs Jour : Referat Zhur - Fizika, No 5, 1957, 12244

Author : Frantsevich, I.N., Kalinovich, D.F.
Inst : -
Title : Phenomenon of Electro-Transfer in Solid Metallic Solutions. Report I.

Orig Pub : Vopr. poroshkovoy metallurgii i prochnosti materialov. Vyp. 3, Kiev., AN USSR, 1956, 45-61

Abstract : An experimental study, with the aid of radioactive C^{14}, was made of the transfer of carbon in austenite under the influence of a direct electric current in the temperature range from 950 to 1150°. To separate the effect of electrolysis and thermal diffusion, the Guterman procedure was used, (Guterman, V., Izv. Sektora fiz. khim. analiza IONKH AN SSSR, 1949, 10 -- 11). Wire specimens of Armco iron (diameter 0.58 mm, length 60 mm) were coated with copper, with the exception of a 20 mm center section, which

Card 1/4

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USSR/Electricity - Conductors G-4

Abs Jour : Ref Zhur - Fizika, No 5, 1957, 12244

was subjected to carbonization (dementation); $BaCO_3$ containing C^{14} was invroduced into the carburizer.

For the measurements, the copper layer was removed, the specimens were placed in heating ampoules of molybdenum glass, filled with pure argon (pressure of 300 mm mercury). The ends of the specimens were welded to molybdenum conductors, fused into the ampoules. The electrolysis was carried out at a voltage of 1.5 -- 3.5 volts and a current from 5 to 8 amp. The thermal diffusion was investigated by heating the specimens to a suitable temperature with alternating current and holding them for the same length of time as in electrolysis.

During the electrolysis process, the front of the carbon shifts toward the cathode; the activity of the anode portion of the cemented portion falls to zero.

In the quantitative processing of the experimental data, account was taken of the thermal diffusion. the frontal

Card 2/4

USSR/Electricity - Conductors G-4

Abs Jour : Ref Zhur - Fizika, No 5, 1957, 12244

electrolysis is considered

SOV/137-58-8-18061

Translation from: Referativnyy zhurnal, Metallurgiya, 1958, Nr 8, p 265 (USSR)

AUTHORS: Frantsevich, I. N., Kalinovich, D. F.

TITLE: Investigation of Electric Transfer in Solid Metallic Solutions (Issledovaniye elektroperenosa v tverdykh metallicheskikh rastvorakh)

PERIODICAL: V sb.: Issled. po zharoprochn. splavam. Vol 2. Moscow, AN SSSR, 1957, pp 329-358

ABSTRACT: Ref. RZhMet, 1956, Nr 10, abstract 10898

1. Metals—Electron transfer

Card 1/1

KALINOVICH, D.F., Cand Tech Sci -- (diss)"Study of electric transmission in solid metallic solutions." Mos 1958, 18 pp. with graphs (State Plan USSR. Central Sci Res Inst of Ferrous Metallurgy) 150 copies (KL, 39-58, 109)