

OREKHOV, Anatoliy Dmitriyevich; MUSINOV, Lev Nikolayevich; KAUFMAN,
Vladimir Aleksandrovich; BORISOV, M.S., inzh., retsenzent;
YATSENKO, V.A., inzh., retsenzent; FAL'KO, O.S., inzh., red.;
GORDEYKVA, L.P., tekhn.red.

[New agricultural machinery; brief manual] Novye sel'sko-
khosiaistvennye mashiny; kratkii spravochnik. Moskva, Gos.
nauchno-tekhn.isd-vo mashinostroit.lit-ry, 1960. 254 p.
(Agricultural machinery) (MIRA 13:9)

YEREMEYEV, Iosif Dmitriyevich; PORTYANKO, A.I., inzh., retsenzent; TAT'YANKO, N.V., inzh., retsenzent; FAL'KO, O.S., inzh., red.; CHERNOVA, Z.I., tekhn. red.

[Theory of the construction of the working parts of beet harvesting combines] Elementy teorii postroeniia rabochikh organov sveklo-uborochnykh kombainov. Moskva, Gos. nauchno-tekhn. izd-vo mashino-stroit.lit-ry, 1961. 130 p. (MIRA 14:11)
(Sugar beets--Harvesting) (Combines (Agricultural machinery))

KORBUT, L.A.; STEPANOV, M.A., inzh., retsenzent; FAL'KO, O.S.,
inzh., red.; UVAROVA, A.F., tekhn. red.

[Mechanization of agriculture in Great Britain] Mekhaniza-
tsiia sel'skogo khoziaistva Velikobritanii. Moskva, Mashgiz,
1961. 185 p. (MIRA 15:10)
(Great Britain--Farm mechanization)

ZHITNEV, N.F., inzh., red.; KOLOTUSHKINA, A.P., kand. ekonom. nauk, red.;
GORYACHKIN, M.I., kand. ekon. nauk, retsenzent; FAL'KO, O.S.,
inzh., red.; TIKHANOV, A.Ya., tekhn. red.

[Economic effectiveness of the agricultural machinery] Ekonomicheskaia effektivnost' novykh sel'skokhoziaistvennykh mashin; metody i normativno-spravochnye materialy. Moskva, Gos. nauchno-tekhn. izd-vo mashinostroit. lit-r , 1961. 314 p. (MIRA 15:1)
(Agricultural machinery)

LOGOV, Leonid Maksimovich, kand. tekhn. nauk; KULIKOV, N.K., doktor
tekhn. nauk, retsenzent; FAL'KO, O.S., inzh., red.; EL'KIND,
V.D., tekhn. red.

[Hydraulic reversible multi cylinder engine] Gidravlicheski ob-
ratimyi mnogotsilindrovyyi dvigatel'. Moskva, Mashgiz, 1962. 66 p.
(MIRA 15:4)

(Hydraulic engines)

VISOTSKIY, Mikhail Stepanovich; DOERYKH, Leonid Ivanovich; SIROTKIN,
Zalya L'vovich; TROFIMOV, V.I., inzh., retsenzent; FAL'KO, O.S.,
inzh., red.; EL'KIND, V.D., tekhn. red.

[Automobile and tractor trailers] Avtomobil'nye i traktornye
pritsepy. Moskva, Mashgiz, 1962. 161 p. (MIRA 15:5)
(Truck trailers)

FATEYEV, Yefim Mikhaylovich, doktor tekhn. nauk, prof.; FAL'KO, O.S.,
inzh., red.; CHERNOVA, Z.I., tekhn. red.

[Windmills and their use in agriculture] Vetrodvigateli i ikh pri-
menenie v sel'skom khoziaistve. 1zd.3., dop. i perer. Moskva,
Mashgiz, 1962. 246 p. (MIRA 15:6)

1. Chlen-korrespondent Akademii sel'skokhozyaystvennykh nauk imeni
V.I.Lenina (for Fateyev).

(Windmills)

LOGOV, Igor' Leonidovich; GILINSKIY, I.A., kand. tekhn. nauk,
retsenzent; FAL'KO, O.S., inzh., red.; SMIRNOVA, G.V.,
tekhn. red.; VLADIMIROVA, L.A., tekhn. red.

[Pneumatic pumps]Pnevmaticheskie nasosy. Moskva, Mashgiz,
1962. 207 p. (MIRA 15:9)
(Pumping machinery)

KOMISARIK, S.F., kand. tekhn. nauk; IVANOVSKIY, N.A., kand. tekhn.
nauk; PROKOF'YEV, V.N., doktor tekhn. nauk, retsenzent;
FAL'KO, O.S., inzh., red.; GORDEYEVA, L.P., tekhn. red.

[Hydrostatic transmissions] Gidrawlicheskie ob'emnye tran-
smisii. Moskva, Mashgiz, 1963. 152 p. (MIRA 16:5)
(Oil hydraulic machinery)

LIKHACHEV, V.S., kand. tekhn. nauk; VEDENYAPIN, G.V., doktor
tekhn. nauk, retsenzent; FAL'KO, O.S., inzh., red.;
EL'KIND, V.D., tekhn. red.

[Testing tractors] Ispytaniia traktorov. Izd.2., perer.
Moskva, Mashgis, 1963. 278 p. (MIRA 17:2)

VOLKOV, G.I. [deceased]; KLETSKIN, M.I., inzh., retsenzent; FAL'KO, O.S.,
inzh., red.; EL'KIND, V.D., tekhn.red.

[Agricultural machinery in the U.S.A.; state and developmental
trends] Sel'skokhoziaistvennaia tekhnika v SShA; sostoianie
i tendentsii rasvitiia. Moskva, Mashgis, 1963. 313 p.

(MIRA 16:6)

(United States—Agricultural machinery)

6c

L 35565-65 EFF(o)/EFF(n)-2/EPR/EG(j)/EWT(d)/EWT(1)/EWT(n)/EWT(h)/EWT(e) Pr. 4/
 ACCESSION NR: AP5008153 Pa-h/Pu-h WH/WH/JW/ S/0286/63/000/005/0031/0051
 JW/JB

AUTHORS: Zinchenko, A. I.; Zarochonskiy, Ye. T.; Noshchenko, K. Ye.; Kanovskiy, L. S.; Sinayev, R. S.; Novlyanskiy, V. P.; Kaklyugin, B. S.; Fal'ko, V. I.; Koseynin, Ye. M.; Gonin, L. Sh.; Kralin, L. A.

TITLE: A graphite heat exchanger. ¹⁵ Class 17, No. 168734 ³⁰
B

SOURCE: Byulleten' izobreteniy i tovarnykh znakov, no. 5, 1965, 31

TOPIC TAGS: heat exchanger, graphite

ABSTRACT: This Author Certificate ²¹ presents a graphite heat exchanger made of blocks with channels for heat-exchanging media. It is equipped on the ends with caps and fittings for introducing and removing the indicated media. To improve the thermal efficiency and to reduce weight, the caps are equipped with adapter plates and horizontal baffles for multipass parallel countercurrents of the media.

ASSOCIATION: none

SUBMITTED: 20Feb63 ENCL: 00 SUB CODE: TD

NO REF SOV: 000 OTHER: 000

Card 1/1

ACCESSION NR: AP4031156

S/0056/64/046/004/1344/1351

AUTHORS: Kaner, E. A.; Fal'ko, V. L.

TITLE: Magnetoacoustic dimensional effect in a metal plate

SOURCE: Zh. eksper. i teor. fiz., v. 46, no. 4, 1964, 1344-1351

TOPIC TAGS: ultrasound, magnetoacoustic effect, dimensional effect, ultrasound propagation, Fermi surface

ABSTRACT: Continuing earlier investigations of high-frequency dimensional effects in a magnetic field (E. A. Kaner, DAN SSSR v. 119, 471, 1958) (V. F. Gantmakher and E. A. Kaner, ZhETF, v. 45, 1430, 1963), the authors study the dimensional effects that arise in the propagation of ultrasound through a metal plate in a magnetic field if the field is parallel to the sample surface, the oscillations associated with the geometric resonance should exhibit cutpff when the diameter of the electron orbit becomes larger than the sample

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ACCESSION NR: AP4031156

thickness. If the magnetic field makes an angle with the plate surface, the dimensional effect becomes oscillatory and a periodic function of the applied field. An investigation of the angular dependence of the period and amplitude of the oscillations makes it possible to determine the local values of the Gaussian curvature and the electron mean free path at the Fermi surface. The limiting case of relatively low acoustic frequencies and strong magnetic fields is considered. Inclination of the magnetic field relative to the plate gives rise to oscillations of the dimensional effect which are periodic in the applied field, by virtue of the electron drift from one surface to another. In the case of an infinite metal, the absorption and dispersion of the acoustic velocity exhibit resonance oscillations that are periodic in the reciprocal field. Smearing and reduction in the height of the resonance peaks is observed in thin plates of thickness small compared with the mean free path or along the normal to the surface. In the case of a thin plate the amplitude and width of the sound absorption resonance peaks are not

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ACCESSION NR: AP4031156

determined by the volume scattering but by the time of flight of the resonance electrons from one side of the plate to the other. All these conclusions are checked by calculation. Orig. art. has: 22 formulas.

ASSOCIATION: None

SUBMITTED: 20Sep63

DATE ACQ: 07May64

ENCL: 00

SUB CODE: GP

NR REF SOV: 010

OTHER: 000

Card 3/3

L 42986-65 EWT(1)/EEC(t) Pg-4/P1-4/P1-4 CG/LHB
ACCESSION NR: AP5006527

S/0056/65/048/002/0742/0747

AUTHOR: Blank, A. Y. ; Fal'ko, V. L.

TITLE: Propagation of electromagnetic waves in metals with regard to Fermi fluid interaction

SOURCE: Zhurnal eksperimental'noy i teoreticheskoy fiziki, v. 48, no. 2, 1965, 742-747

TOPIC TAGS: electromagnetic wave propagation, electromagnetic wave excitation, Fermi fluid interaction, Fermi fluid electron

ABSTRACT: The spectrum and damping of electromagnetic excitations in a metal placed in a strong magnetic field are considered with regard to Fermi fluid interaction. In some cases the correlation function for the Fermi fluid electrons in the metal can be found by studying weakly damped waves. For example, the spectrum of an electromagnetic wave polarized in the direction of the magnetic field, for the case of strong spatial dispersion in an anisotropic metal, may be written:

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ACCESSION NR: AP5006527

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$$\omega = (\hbar k^2 / 2M) |\sin 2\varphi|,$$

$$M = \hbar c^{-1} k_D \left[1 - \frac{4\pi c^2}{\hbar^2 k_D^2} \sum \int m dp_i \langle G \rangle \right]^{-1/2}.$$

Investigation of a wave with this spectrum yields correlation function G , since the density of states $dn/d\omega$ can be calculated indirectly, e.g. from measurements of specific heat. "The authors thank E. A. Kaner, under whose guidance the work was accomplished." Orig. art. has: 24 formulas.

ASSOCIATION: Institut radiofiziki i elektroniki Akademii nauk Ukrainiskoy SSR
(Institute of Radiophysics and Electronics, Ukrainian Academy of Sciences)

SUBMITTED: 03Sep64

ENCL: 00

SUB CODE: EM, NP

NO REF SOV: 008

OTHER: 000

Card 2/2 JC

I 18774-66 ET(1)/ET(m)/T/ETP(t) JJ/CG
Acc Nr: AP6002733 SOURCE CODE: UR/0056/65/049/006/1895/1903

46
43
B

AUTHORS: Kaner, E. A.; Fal'ko, V. L.

ORG: Institute of Radiophysics and Electronics, Academy of Sciences,
Ukrainian SSR (Institut radiofiziki i elektroniki Akademii nauk
Ukrainskoy SSR)

TITLE: Concerning the question of anomalous penetration of an
electromagnetic field in a metal

SOURCE: Zhurnal eksperimental'noy i teoreticheskoy fiziki, v. 49,
no. 6, 1965, 1895-1903

TOPIC TAGS: skin effect, electron distribution, electron interaction,
electromagnetic effect, alternating electromagnetic field

ABSTRACT: The authors propose a new mechanism to explain the anoma-
lous penetration of a high-frequency electromagnetic field into a
metal in the presence of a strong (constant and uniform) magnetic
field, which has recently been observed by several investigators, and
especially the appearance of high-frequency field and current peaks

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Card 1/2

L 18774-66
ACC NR: AP6002733

3

in the interior of the metal at large distances from the surface. According to this mechanism some of the electrons interact effectively with the electromagnetic field near the surface of the metal while others give rise to skin layers in the interior of the metal. Unlike in earlier investigations, this mechanism is highly effective at relatively large angles of inclination of the magnetic field with respect to the surface. It is shown that such separation of the electrons into different groups leads to the appearance of a periodic system of narrow and slowly decaying peaks. The effect should occur in pure single crystals of metals in a magnetic field which is inclined to the sample surface. A detailed theory is developed for this effect on the basis of a solution of the Maxwell equation for the field in the interior of the metal. Possible detection of this effect by observing the high-frequency size effect in a sample is discussed. Orig. art. has: 3 figures and 37 formulas.

SUBCODE: 20/ SUBM DATE: 06Jul65/ ORIG REF: 008/

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2/2 *M.S.*

1 05780-07 LW/10/FW/10/101 10101 1010

ACC NR: AP6031449 SOURCE CODE: UR/0056/66/051/002/0586/0600

AUTHOR: Kaner, E. A.; Fal'ko, V. L.

37
B

ORG: Institute of Radiophysics and Electronics, Academy of Sciences Ukrainian SSR (Institut radiofiziki i elektroniki Akademii nauk Ukrainiskoy SSR)

TITLE: Shape of the curve of radio-frequency dimensional effect in metals ✓

SOURCE: Zh eksper i teor fiz, v. 51, no. 2, 1966, 586-600

TOPIC TAGS: radio frequency effect, electromagnetic wave, wave attenuation, skin layer

ABSTRACT: A theory is developed for the shape of the curve of the radio-frequency dimensional effect due to the cut-off of extreme electron trajectories in a metal plate. It is shown that the shape of the curve is directly connected to the nature of the attenuation of the electromagnetic waves in the skin layer. The inverse problem is solved for determining the field in a metal from experimental data. The shape of the curve is calculated for the exponential law of radio-wave attenuation. The authors thank M. Ya. Azbel' for valuable comments. Orig. art. has: 3 figures and 64 formulas. [Based on authors' abstract]

Card ^{edge} 1/1 SUB CODE: 20/SUBM DATE: 05Mar66/ORIG REF: 014/

KUKHARENKO, Nina Ivanovna, kand.biol.nauk; MANORIK, A.V., kand.sel'skokhoz.
nauk, glavnyy red.; FAL'KO, Yu.G. [Fal'ko, IU.H.], red.

[Mineral fertilizers and their effective utilisation] Mineral'ni
dobryva ta ikh efektyvne zastosuvannia. Kyiv, 1960. 39 p. (To-
varystvo dlia poshyrennia politychnykh i naukovykh znan' Ukrain's'koi
RSR. Ser.6, no.24). (MIRA 14:1)
(Fertilizers and manures)

CHAPLITSKIY, Vladimir Konstantinovich [Chaplyts'kyl, V.K.]; SHAMIS, Emanuel Issakovich; TOLCHINSKIY, A.A. [Tolchyns'kyl, A.A.], glavnyy red.; FAL'KO, Yu.G. [Fal'ko, IU.H.], red.

[Lowering building costs on collective farms] Shliiskhy
snyshennia vartosti budivnytstva v kolhoospakh. Kyiv, 1960.
30 p. (Tovarystvo dlia poshyrennia politychnykh i naukovykh
znan' Ukrain's'koi RSR. Ser.6, no.23). (MIRA 14:2)
(Farm buildings--Costs)

PIKUS, Grigoriy Pimenovich [Pikus, H.P.]; SHMATKO, Yu.G. [Shmatko, I.U.H.], kand.sel'skokhoz.nauk, glavnyy red.; FAL'KO, Yu.G. [Fal'ko, I.U.H.], red.

[Practices of the collective farm in establishing a stable feed supply] Dovid kolhospu po stvorenniu mitsnoi kormovoi bazy. Kyiv, 1960. 30 p. (Tovarystvo dlia poshyrennia politychnykh i naukovykh snan' Ukrain's'koi RSR. Ser.6, no.16).

(MIRA 14:2)

(Odessa Province--Feeds)

SAVITSKIY, Konstantin Amosovich [Savyts'kyi, K.A.], kand.sel'skokhoz.nauk;
BUNTUSH, T.P., kand.sel'skokhoz.nauk, glavnyy red.; FAL'KO, Ya.G.
[Fal'ko, I.U.H.], red.

[Practices of winter wheat cultivation in the Ukraine] Dosvid
vyroshchuvannia ozymoi pshehytsi na Ukraini. Kyiv, 1960. 39 p.
(Tovarystvo dlia poshyrennia politychnykh i naukovykh znaniy
Ukrains'koi RSR. Ser.6, no.20)

(MIRA 14:2)

(Ukraine--Wheat)

USHAKOV, Aleksandr Fedorovich [Ushakov, O.F.], kand.sel'skokhoz.nauk;
KARPENKO, S.O., inzh., glavnyy red.; FAL'KO, Yu.G. [Fal'ko, IU.H.],
red.

[Mechanized cultivation and harvesting of sugar beets] Mekhani-
zatsiia vyroshchuvannia i sbyrannia tsukrovyykh buriakiv. Kyiv,
1960. 38 p. (Tovarystvo dlia poshyrennia politychnyykh i naukovykh
znan' Ukraini'koi RSR. Ser.6, no.17).

(MIRA 14:1)

(Sugar beets) (Agricultural machinery)

DEMIDENKO, I.G. [Demydenko, I.H.]; MINEVICH, S.M. [Minevych, S.M.], otv.
red.; FAL'KO, Yu.G. [Fal'ko, Yu.H.], red.; MATVIICHUK, O.A.,
tekhn. red.

[Recent developments in the production and use of fertilizers]
Noye u vyhotovlenii i zastosuvanni dobryv. Kyiv, 1961. (Tovarystvo
dlia poshyrennia politychnykh i naukovykh znan' Ukraini'koi RSR. Ser.5,
no.6) (MIRA 14:9)

(Fertilizers and manures)

KUZNETSOV, Aleksandr Ivanovich [Kuznetsov, O.I.]; FAL'KO, Yu.G. [Fal'ko, IU.H.], red.; MATVIICHUK, O.A., tekhn. red.

[Mechanized operation in drainage and irrigation] Mekhanizatsiia hidromeliorativnykh robit. Kyiv, 1961. 42 p. (Tovarystvo dlia poshyrennia politychnykh i naukovykh znan' Ukrain's'koi RSR. Ser.5, no.9) (MIRA 14:9)

(Drainage) (Irrigation)

SVECHIN, Kirill Borisovich [Sviechin, K.B.], prof.; BEREZOVYI, Anatoliy
Semenovich [Berezovyi, A.S.], zootekhnik; FAL'KO, Yu.G. [Fal'ko,
Yu.H.], red.; MATVIICHUK, O.A., tekhn. red.

[How to breed animals for meat] Vyrashchuvannia tvaryn na m'iaso.
Kyiv, 1961. 41 p. (Tovarystvo dlia poshyrennia politychnykh i
naukovykh znan' Ukrain's'koi RSR. Ser.5, no.11) (MIRA 14:10)
(Stock and stockbreeding)

FAVOROV, Aleksey Mikhaylovich [Favorov, O.M.]; KOLOTUKHA, Mikhail Sidorovich, agronom; MARTINYUK, D.M.[Martynyuk, D.M.], otv. red.; FAL'KO, Yu.G.[Fal'ko, IU.H.], red.; MATVIICHUK, O.A., tekhn. red.

[Practices of growing potatoes in the Ukraine] Dosvid vyroshchuvannia kartopli na Ukraini. Kyiv, 1961. 42 p. (Tovarystvo dlia poshyrennia politychnykh i naukovykh znan' Ukrain's'koi RSR. Ser.5, no.23) (MIRA 15:2)

1. Chlen-korrespondent Akademii nauk USSR (for Kolotukha). (Ukraine--Potatoes)

NAZAROV, Ivan Andreyevich; GNATUSH, A.M. [Hnatush, A.M.], otv. red.; FAL'KO, Yu.G.
[Fal'ko, I.U.H.], red.; ZELENKOVA, E.F. [Zelenkova, I.E.F.], tekhn. red.

[Organization of fish ponds in collective farms] Organizatsiia
stavkovoho hospodarstva v kolhospakh. Kyiv, 1961. 46 p. (To-
varystvo dlia poshyrennia politychnykh i naukovykh znan' Ukrain's'koi
RSR. Ser.5, no.18) (MIRA 14:12)

(Fish ponds)

ORLOVSKIY, Nikolay Ivanovich; FAL'KO, Yu.G., red.; CHEDEVATSKIY, S.A.,
tekhn. red.

[Fundamentals of the biology of sugar beets; with the elements
of cultivation practices and breeding] Osnovy biologii sakharnoi
svekly (s elementami agrotekhniki i selektsii). Kiev, Gos. izd-
vo sel'khoz. lit-ry USSR, 1961. 323 p. (MIRA 15:4)
(Sugar beets)

METELKIN, Boris Aleksandrovich, kand. tekhn. nauk; CHELOUNOV,
Leonid Aleksseyevich, inzh.; KORBUNOV, Vladimir Aleksandrovich,
inzh. Prinsipal uchastnye FIL'KOM, V.E., inzh.; AYBASHEVA, T.V.,
red.

[Increasing the economic efficiency of electric traction
systems with rectifier-type locomotives] Povyshen' effektiv-
nosti ustroystv elektricheskoi tiagi s vypriamitel'nymi elek-
trovozani. Moskva, Transport, 1965. 175 p. (MIRA 18:1)

1. Institut kompleksnykh transportnykh problem Gosplana SSSR
(for all except Aybasheva).

GOL'DENBERG, G.O.; FALKON, I.F.

Building the first line of rolling a mill of the "2500" series.
Prom. stroi. 39 no.4:11-16 '61. (MIRA 14:6)

1. Trest Magnitostroy (for Falcon).
(Magnitogorsk—Rolling mills)

FAL'KON, L. M., Cand Tech Sci -- (diss) "Research into the process of shattering mining rock with the teeth of cutting chisels." Moscow, 1960. 24 pp; (Ministry of Higher and Secondary Specialist Education RSFSR, Moscow Order of Labor Red Banner Inst of Petrochemical and Gas Industry im I. M. Gubkin); 250 copies; price not given; (KL, 22-60, 140)

ZHUKOVSKIY, S.R.; FAL'KON, M.; EYGELES, R.M.

Use of high speed motion-picture photography for the study of
rock breaking. Zhur. nauch. i prikl. fot.i kin. 6 no.1:50-52
Ja-F '61. (MIRA 14:3)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut burovoy tekhniki
i Moskovskiy gosudarstvennyy universitet, kafedra uchebnoy i
nauchnoy fotografii i kinematografii.

(Motion-picture photography—Scientific applications)
(Boring)

KONSTANTINOV, L.P., inzh.; FAL'KON, S.M., inzh.; EYGELES, R.M., kand.tekhn.nauk

Study of bit torsional moments. Trudy VNIIBT no.3:14-17 '61.
(MIRA 15:1)

(Turbodrills)

FAL'KOV, A.I., insh.

Effect of boron on solidification and character of ShKh15 steel
crystallisation in small castings, *Izv. vys. ucheb. zav.;* *chern.*
met. no.3;124-130 *Mr '58.* (MIRA 11:5)

1. Tomskiy politekhnicheskii institut,
(Boron steel--Metallography)
(Steel castings)

FLUKOV, A.I., Cand Tech Sci ~~—(disc)~~ "Effect of ~~solidification~~
by boron ^{when} of the crystallization, structure, and certain ~~properties~~
steel characteristics of ShKh15(Ph) steel." Tomsk, 1959. 14 pp
with graphs; 1 sheet of ill. (In of Higher Education USSR. Tomsk
Order of Labor Red Banner Polytech Inst. S.M. Kirov), 150 copies
(KL, 32-50, 104)

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S/137/60/000/007/005/013

A006/A001

Translation from: Referativnyy zhurnal, Metallurgiya, 1960, No. 7, pp.248-249
15886

AUTHOR: Fal'kov, A. I.

TITLE: On the Hardenability and Its Mechanism in Steels With Boron

PERIODICAL: Izv. Tomskogo politekhn. in-ta, 1959, Vol. 96, No. 1, pp. 45-49

TEXT: Literature data are compared and it is assumed that the enhanced stability of austenite in steels with addition of B may be explained by the fact that B reduces the bonding forces of the crystalline lattice and the energy of the potential barrier of atoms in the transition zone of austenite grains. As a result, the amount of liberating (at the rearrangement of atoms) free volume energy, required for the formation of interfaces of ferrite nuclei, is reduced. There are 14 references. ✓

T. F.

Translator's note: This is the full translation of the original Russian abstract.

Card 1/1

18(3)

SOV/148-59-1-13/19

AUTHOR: Fal'kov, A.I., Engineer

TITLE: The Effect of Modification With Boron on Some Properties of "ShKh15" Grade Cast Steel (Vliyaniye modifitsirovaniya borom na nekotoryye svoystva litoy stali ShKh15)

PERIODICAL: Izvestiya vysshikh uchebnykh zavedeniy - Chernaya metallurgiya, 1959, Nr 1, pp 113-120 (USSR)

ABSTRACT: Investigations were carried out for the purpose of determining the effect of modification by boron on the temperature range in hardening and on the mechanical properties of "ShKh15"-grade steel. Hardness tests were performed on specimens of cast steel and standard forged "ShKh15" steel, and proved that modification with boron changed the quantitative correlation of phases, caused the favorable re-distribution of alloying elements and lowered the temperature range of hardening. The lowered temperature range prevents formation of cracks in hardening and reduces residual stresses, particularly in complicated structures and large size work. The evaluation of the mechanical properties of steel in hardened condition was based on tests which were carried out according to a method

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SOV/148-59-1-13/19

The Effect of Modification With Boron on Some Properties of "ShKh15" Grade Cast Steel

developed by B.D. Grozin. The method consisted in a non-uniform pressing of the specimen and permitted to observe the strength and plasticity of the steel and the character of the course of deformation in all pressing stages up to the collapse of the specimen. The tests proved that hardened and tempered steel, modified with boron, had better mechanical properties than unmodified steel, the same plasticity and strength as standard forged steel, and was more resistant to softening by deformation in the hardened state. Best results were obtained with steel subjected to heat treatment (homogenization and tempering to granular perlite) prior to the hardening process. There are: 1 table, 4 graphs (Graphs 2a and 2b missing) and 9 Soviet references.

Card 2/~~3~~

ASSOCIATION: Tomskiy politekhnicheskiy institut (Tomsk Polytechnical Institute)

Submitted: September 29, 1958.

ACC NR: AR6035422

SOURCE CODE: UR/0137/66/000/009/E043/E043

AUTHOR: Krivov, V. V.; Fal'kov, A. I.; Manakov, A. I.

TITLE: Contact roller welding of thin sheets of the alloy AMG-6N using commercial type MShM-25M machines

SOURCE: Ref. zh. Metallurgiya, Abs. 9E296

REF. SOURCE: Tr. Kurganskogo mashinostroit. in-ta, vyp. 2, 1966, 74-80

TOPIC TAGS: pressure welding, automatic welding, sheet metal, ignitron/AMG-6N alloy

ABSTRACT: The possibility of roller welding thin-sheet structures of the AMG-6N alloy is disclosed, and some of its features are discussed. Sheets of this alloy, of 0.3 mm thickness, were successfully welded with an ordinary low-power roller machine (25 kva) using an ignitron timer; some individual units of the machine had to be slightly modified. Certain structures made of thin-sheet AMG-6N alloy by roller welding can operate at differential pressures up to 1.0 -- 1.5 atm. M. Frolova.

SUB CODE: 13, 11

Card 1/1

UDC: 621.791.763.3:669.715

FALKOV, B.P.

The ~~SEP-54~~ electric stroboscopic tachometer. Izv.tekh.no.6:56-57
N-D '56. (MIRA 10:1)
(Tachometer) (Stroboscopy)

FAL'KOV, I. A.

Fal'kov, I. A. and Benderskaya, R. I. "Cover plates of plaster of Paris and wood fibers," Sbornik rabot po mest. stroit. materialam (Upr. prom-sti stroyaterialov i stroydetaley Mosgorispolkoma, Nauch.-issled. i eksperim. stantsiya:, Issue 1, 1948, p. 40-42

SO: U-3264, 10 April 53 (Letopis 'Zhurnal 'nykh Statey, No. 4, 1949).

FAL'KOV, I. A.

27782. FAL'KOV, I. A. , BUTT, YU. M. i IVAKHNO, N. V. -- Vyazhushchiy material iz ochazhnykh ostatkov kol'tsevykh pechey. Mest. Stroit. Materialy, 1948 Vyp. 9, S. 21-26.

SO: Letopis' Zhurnal'nykh Statey, Vol. 37, 1949.

PALIKOV, I.A.

13

Effect of some technological factors on the properties of silicate brick. I. A. Pal'kov. *Sbornik Trudov Kazansk. Vuzovsk. Stroy. Fakul'teta*, 1953, No. 8, 61-74; *Referat. Zhur. Kazan.*, 1954, No. 13457. — The time of steaming of silicate brick was reduced by half by increasing the molding pressure by 30-50 kg./sq. cm. and by adding tripoli, clay, limestone, and ground sand. The brick obtained by this method is of the same strength as that steamed the usual time (8 hrs.). By these means, the output of the steaming shop is increased by 20-50%. By addn. to the body of 10% of clay (of the Moscow-region type), the strength of silicate brick is greatly increased. If the clay content of the body is increased to a point where it has the largest vol. wt., the strength of the brick is increased by 55%. Addn. of 80% tripoli to the body raises the strength by 75%. Addn. of ground sand and in some cases ground limestone increased the frost resistance. Tripoli does not improve the frost resistance. M. Bloch

FAL'KOV, I.

USSR/Chemical Technology. Chemical Products and Their Application - Silicates. Glass. Ceramics. Binders. I-9

Abs Jour : Referat Zhur - Khimiya, No 4, 1957, 12649

Author : Fal'kov I., Zil'berfarb P.

Title : Heat Treatment of Blocks Made from Raw Materials Comminuted in a Vibratory Mill

Orig Pub : Stroit. materialy, izdeliya i konstruktsii, 1956, No 7, 27-28

Abstract : Lime-sand, lime-clay-sand and lime-slag blocks (B), manufactured with the use of quicklime ground (same as clay) to a specific surface of 5000 - 6000 cm²/g, are molded immediately after preparation of the mix. Heat treatment of the B in molds consists in steaming, for 24-36 hours, at 80-90° and carried out after a preliminary aging for 2 days at 5-20° in a moist medium. After completion of steaming the B are dried for 4 hours. Activity of the mix must not exceed 6-8%.

Card 1/2

- 100 -

Chem Tech Sci

USSR/Chemical Technology, Chemical Products and Their
Application - Silicates. Glass. Ceramics. Binders.

I-9

Abs Jour : Referat Zhur - Khimiya, No 4, 1957, 12649

Clay content of lime-clay-sand mix is preferably
adjusted to 40% of the weight of the mix.

Card 2/2

- 101 -

FAL'KOV, I. H.

UMANSKIY, Naum L'vovich; ~~FAL'KOV, Isif Azraelevich [deceased]~~; SOKOLOV, Yu.B.,
nauchnyy redaktor; ~~SHPAYER, A.L., redaktor~~; PYATAKOVA, E.D., tekhnicheskiiy redaktor.

[Manufacture and use of tiles made of cement and sand] Proizvodstvo
i primeneniye tsementno-peschanoi cherepitsy. Moskva, Gos.izd-vo
lit-ry po stroit.materialam, 1957. 103 p. (MIRA 10:11)
(Tiles, Roofing)

USPENSKIY, V.V. [author]; FAL'KOV, I.I., kandidat tekhnicheskikh nauk [reviewer].

"Lowering the cost of prefabricated concrete." V.V.Uspenskii. Reviewed by
I.I.Fal'kov. Gor.khoz.Mosk. 27 no.10:33 0 '53. (MLRA 6:11)
(Precast concrete construction) (Uspenskii, V.V.)

ACC NR: AP6029953 (A, N) SOURCE CODE: UR/0413/66/000/015/0131/0132

INVENTORS: Mal'kov, L. G.; Rutakly, V. V.; Simkin, Yo. L.; Rubin, A. Ya.; Harinakiy, P. I.; Bogolyubov, S. A.; Shakhovnina, G. V.; Chalov, V. S.; Rabinov, A. I.; Pivkov, P. M.; Ivanov, K. V.

ORG: none

TITLE: Movable apparatus. Class 49, No. 184584

SOURCE: Izobret prom obraz tov zn, no. 15, 1966, 131-132

TOPIC TAGS: metalworking, gas welding, metal welding, welding equipment, welding technology, milling machine

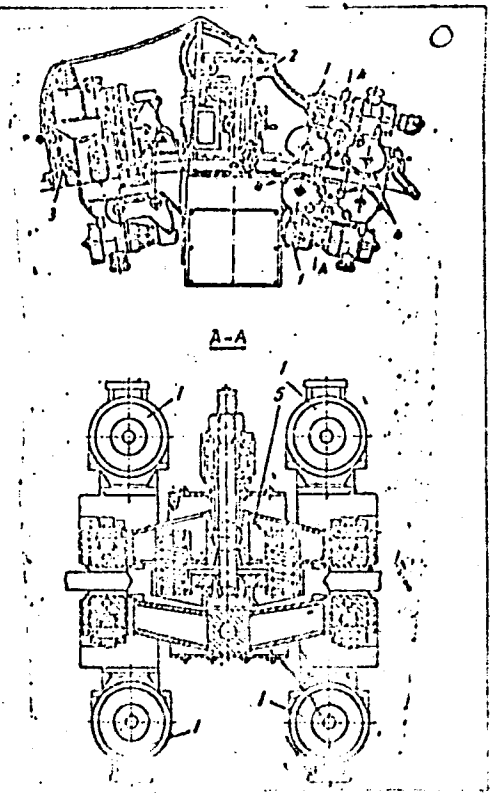
ABSTRACT: This Author Certificate presents a movable apparatus for machining the edges prior to welding two large objects. The apparatus contains a milling head mounted on self-propelled carriages. The head is fed axially along the outline of a detail by a pantographic copying mechanism. To increase the efficiency and the accuracy in milling the edges located on any plane upon an immovable structure, the self-propelled carriages are placed on the surfaces being machined (see Fig. 1). The apparatus itself is provided with an auxiliary milling head for machining the opposite edge facing the first one. The edges are separated by gas cutting torches placed in front of the moving apparatus.

Card 1/2

UDC: 621.914.37-182.3:621.791.945.021

I. 09257-57
ACC NR: AP6029953

Fig. 1. 1 - self-propelled
carriages; 2 - milling heads;
3 - gas cutting torches; 4 -
running rollers; 5 - coupling
device



Orig. art. has: 1 figure.

13/ SUBM DATE: 20May64

L 61120-65 EWT(d)/EPA/EWT(1)/EWT(m)/SWP(w)/EWP(f)/EWG(v)/EWP(c)/EWP(v)/T/
EWP(k)/EWP(1)/ETC(m) WW/EM

ACCESSION NR: AP5019067

UR/0286/65/000/012/0094/0094

AUTHORS: Vyhornov, B. I.; Vasil'yev, A. F.; Fal'kov, O. N.; Artyukhin, V. I. 51
B

TITLE: Apparatus for inspecting the blades of turbines and compressors with surface ultrasound waves. Class 42, No. 172102 23,44,55 23,44,55

SOURCE: Byulleten' izobreteniy i tovarnykh znakov, no. 12, 1965, 94

TOPIC TAGS: turbine blade, ²⁶compressor blade, inspection method, ^{44 55}ultrasound wave

ABSTRACT: This Author Certificate presents an apparatus for inspecting the blades of turbines and compressors with surface ultrasound waves, as described in Author Certificate No. 158439. To inspect the blades in the hard-to-reach places, the apparatus is provided with a hollow shaped handle (see Fig. 1 on the Enclosure). This handle serves as a reservoir and contains an outflow duct and a pressure valve. The latter allows the flow of the contacting liquid to the surface of the head. Orig. art. has: 1 figure.

ASSOCIATION: none
SUBMITTED: 05Sep61

ENCL: 01

SUB CODE: FR

NO REF SOV: 000

OTHER: 000

Card 1/2

L 61420-65

ACCESSION NR: AP5019067

ENCLOSURE: 01

0

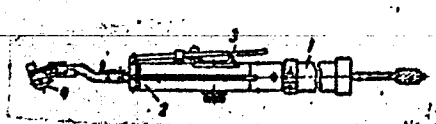


Fig. 1.

1- shaped handle; 2- reservoir with an outflow duct;
3- pressure valve; 4- head

dm
Card 2/2

GUTMAN, N.R.; GENDON, Yu.Z.; MENTKEVICH, L.M.; FAL'KOVA, I.I.

Mixed infection and interference of poliomyelitis and
Coxsackie viruses. Trudy Mosk. nauch.-issl. inst. virus.
prep. 2:153-157 '61. (MIRA 17:1)

FAL'KOVA, I.I.; GUTMAN, N.R.

Study of enteroviruses isolated from children. Vop.virus 7 no.4:64-
71 J1-Ag '62. (MIRA 15:8)

1. Kafedra virusologii Tsentral'nogo instituta usovershenstvovaniya
vrachey, Zaporozhskaya oblastnaya sanitarno-epidemiologicheskaya
stantsiya, Moskovskiy nauchno-issledovatel'skiy institut virusnykh
preparatov.

(VIRUSES) (INTESTINES--MICROBIOLOGY)

KOMPANTSEV, N.F.; GOLYUSOVA, Ye.V.; BITENBINDER, Ye.A.; GUDIMOVA, A.L.;
ROT, L.Ya.; ROZENSHTEYN, A.M.; MODOVSKAYA, F.Ya.; FAL'KOVA, I.I.

Epidemiological characteristics of neuroviral diseases of the
Coxsackie and ECHO types. Vrach. delo no. 3:104-107 Mr '61.
(MIRA 14:4)

(VIRUS DISEASES)

TORGOVITSKAYA, M.S.; BORISOVSKAYA, B.L.; FAL'KOVA, I.I.; YUZEFPOL'SKAYA, A.I.

Salmonellal diseases in Zaporozh'ye. Zhur.mikrobiol.epid. 1
immun. 30 no.5:135 My '59. (MIRA 12:9)

1. Iz Zaporozhskoy oblastnoy sanitarno-epidemiologicheskoy
stantsii.

(SALMONELLA INFECTIONS, epidemiol.
in Russia (Rus))

SOLOV'YEV, V.D.; GUTMAN, N.R.; FAL'KOVA, I.I.

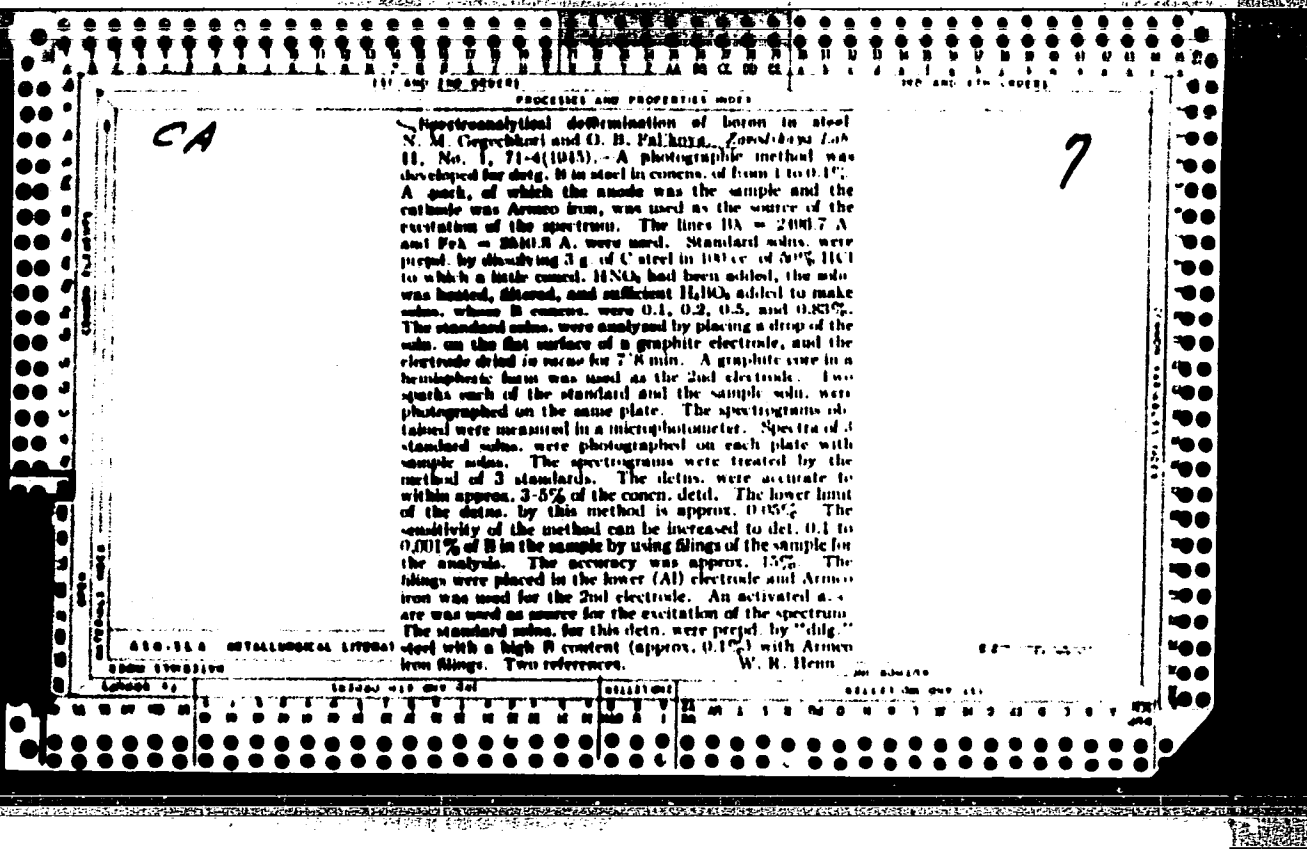
Virological study of an outbreak of aseptic meningitis in Zaporozh'ye. Vop.virus.7 no.5:539-544 S-O '62. (MIRA 15:11)

1. Moskovskiy nauchno-issledovatel'skiy institut virusnykh preparatov, Zaporozhskaya oblastnaya sanitarno-epidemiologicheskaya stantsiya i kafedra virusologii Tsentral'nogo instituta usovershenstvovaniya vrachey.

(ZAPOROZH'YE--MENINGITIS) (ECHO VIRUSES)

PAVLOVA, M.M.; OZERNOVA, Ye.G.

Neutralization of vegetable oils. Patent U.S.S.R. 77,359, Dec.31, 1949.
(CA 47 no.19:10254 '53)



PROCESSES AND PROPERTIES INDEX

7

CA

Spectrum analysis of metals by the powder method and the determination of small concentrations of boron in steels. O. B. Falbura (I. V. Stalin Moscow Inst. Steels). Comp. rend. acad. sci. U.R.S.S. 46, 170-81(1945). — A method is described for the analysis of very small concns. (thousandths of 1%) of B in steel. Filings, taken from several parts of the sample with a very fine file, are sifted through a very fine screen (0.3 mm. diam. of holes). Two hundred mg. of carefully mixed under size is placed in a shallow hole drilled in an Al block. An a.c. arc burning between the sample as one of the electrodes, and an Arsenic iron rod as the other, is used as the excitation source for the spectrum. The arc plays over the surface of the filings and burns them up rapidly. With a B concn. of 0.005%, an exposure of 20 sec. was found sufficient to bring out the $\lambda = 2486.7 \text{ \AA}$. line of B to a normal state of blackness. The const. spectrum background was practically absent. A comparison of spectra obtained from solid and powder samples shows that the B lines of the powder spectrum were 10 to 15 times brighter than those of the solid, exposure being equal in both cases. Expts. with low-concn. Bi and Mn also gave much lighter spectra for the powder sample. Frank Coniel

ASS-SLA METALLURGICAL LITERATURE CLASSIFICATION

1948-51

15

Increase of Stability of the Activated Alternating-Current Arc Under Spark Conditions for Spectro-analytical Purposes. (In Russian.) I. S. Abramson and O. B. Fal'kova. *Zhurnal Tekhnicheskoi Fiziki* (Journal of Technical Physics), v. 19, May 1949, p. 611-615. Describes three circuits for improving the above stability.

Phys. Inst.-im. Lebedev, AS USSR

METALLURGICAL LITERATURE CLASSIFICATION
 A53-55A
 SECTION SYMBOLS
 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 00

FAL'KOVA, O. B.

USSR/ Metals - Steel
Nitrogen, Determination

Apr 50

"Determination of Nitrogen in Steel by the Spectrum Method," S. L. Mandel'shtam,
O. B. Fal'kova, Moscow Inst of Steel imeni I. V. Stalin, 8 $\frac{1}{2}$ pp

"Zavod Lab" Vol XVI, No 4 -p. 430-38

Attempts to develop procedure of spectrum determination of nitrogen in steel by method of simultaneous extraction of gases and excitation of their glow with powerful electric discharge. Describes methods of preparing standards and plotting calibrating line, and discusses results of analyzing 30 specimens of various steels. Low-voltage excitation method proved most convenient. Accuracy based on reproducibility is about 15% of content under determination.

PA 160T71

FAL'KOVA, O.B.

Spectral technique for the determination of oxygen in steel. Izv.
AN SSSR.Ser.fiz. 19 no.2:149-150 Mr-Apr '55. (MLBA 9:1)

1.Moskovskiy institut stali imeni I.V.Stalina.
(Tartu--Spectrum analysis--Congresses)

PAL'KOVA, O.B., FRISHBERG, A.A.

**Investigation of the uniformity of characteristics of various
surface areas of photographic films. Zav.lab. 21 no.3:336-341
'55. (MLRA 8:6)
(Photographic emulsions)**

JA, O.B.

E
O
O

Spectrographic determination of oxygen in steel O. B.

Pal'kova (I. V. Stalin Steel Inst., Moscow), *Zavodskaya*
Lab. 21, 1083-7 (1955), *Ch. D.A.* 50, 5883. O in steel can
be detd. spectrographically in an atm. of H of 40 cm. Hg (an
atm. of He lowered the sensitivity of the O II 4041.8-A. line)
with a high-voltage intermittent spark and in an atm. of H
at 70 cm. Hg with a low-voltage intermittent spark. An
auxiliary C electrode (6.5 mm. diam.) ground to a trun-
cated cone with a surface of 3 mm. diam. was used. Auxil-
ary electrodes of Fe and W gave scattered results.

J. Bensowitz

PC
EPA

O. B. FAI'KOVA

80W/1700

PHASE I BOOK EXPLOITATION

24(7)

U.S.S.R. Academies of Sciences

Materialy i Vnesnyumopo sveshchaniya po spektroskopii, 1956. S. II. Atomsaya spektroskopiya (Materials of the 10th All-Union Conference on Spectroscopy, 1956. Vol. 2: Atomic Spectroscopy) (Moskva: Izdatel'stvo L'vovskogo univ., 1956. 568 p. (Series: Itogi nauki i tekhn. Seriya Khimicheskie nauki, 1956. 3,000 copies printed.)

Mitteilungen des Zentralen Ausschusses der Akademie der Wissenschaften der Ud.S.S.R. für die Physik und Mathematik.

Editorial Board: G.S. Landsberg, Academician, (Mosk. Univ.); S.S. Belyavskiy, Director of Physical and Mathematical Sciences; L.N. Babitskiy, Director of Physical and Mathematical Sciences; V.A. Bortnik, Academician, (Mosk. Univ.); S.M. Kayukh, Academician, (Mosk. Univ.); L.K. Kilmovskaya, Academician, (Mosk. Univ.); V.S. Kilyashchuk (Kilbasov), Director of Physical and Mathematical Sciences; A.Ye. Il'marskiy, Director of Physical and Mathematical Sciences; M.I. S.L. Gasser; Transl. Ed.: T.V. Sarayeva.

Annotation: 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.

CONTENTS: This volume contains 177 scientific and technical studies of atomic spectroscopy 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 and include studies covering many phases of spectroscopy: methods of rare earths, alkali metals, and transition elements; methods of gas discharge, emission spectroscopy, absorption spectroscopy, and methods of controlling spectra; methods of spectroscopy of metal vapors, spectra of alloys 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 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.

Card 2/31

80W/1700

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

Srenitskiy, N.S., I.A. Sukhenko, O.B. Fal'kova, P.F. Galonov, I.I. Tuzmov, and M.S. Alpatov. Spectrum Analysis of Titanium, Molybdenum, and Their Alloys for Nitrogen, Hydrogen, and Oxygen 225

Aleksandrova, A.S., Ye.I. Vorontsov, and S.S. Malyard. Work With Pulse Generators 231

Budilya, Ye.S. Some Aspects of the Entry of Simple Components Into the Discharge With Spark Excitation of Spectra 233

Budilya, Ye.S. Nature of the Structure Effect in Spectrum Analysis of Metal Alloys 242

Orskit, I.A. Mechanism of the Entry of the Simple Component Into the Analytic Gap and Methods for Eliminating Alloy Structure Effect on the Results of Spectrum Analysis 244

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Shcherbakova, T.K., and O.B. Fal'kova. Use of the Spectral Method for the Determination of Chlorine in Climatological Studies 349

Fal'kova, O. B.

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

Abst Journal: Referat Zhur - Khimiya, No 1, 1957, 1264

Author: Sventitskiy, N. S., Sukhenko, K. A., Galonov, P. P., ~~Fal'kova, O. B.,~~
Alpatov, M. S., and Taganov, K. I.

Institution: None

Title: Spectral Determination of Nitrogen, Hydrogen, and Oxygen in Titanium
and Its Alloys

Original

Periodical: Zavod. laboratoriya, 1956, Vol 22, No 6, 668-673

Abstract: The determination of N, O, and H in Ti alloys and of H in Ti powder is described. The determinations were made with a type ISP-51 spectrograph (with a camera of $f = 270$ mm for N and O and a type UF 85 camera of $f = 1,300$ mm for H); type III spectroscopic plates were used for N and O and type 250 Government Standard panchromatic film was used for H. Several methods of excitation were tested, including low-voltage condenser sparks and single-pulse high- and low-voltage condenser discharges. The first method gave the best results with N,

Card 1/2

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

Abst Journal: Referat Zhur - Khimiya, No 1, 1957, 1264

Abstract: while the last method was found most effective for O and H. N and O were determined in an atmosphere of helium (700 and 500 mm Hg, respectively), while H was determined in air. For standards cast samples of Ti were used the N content of which had been determined chemically, and the O and H content -- by hot extraction. The following slit widths were used: 0.015 mm for N, 0.02 mm for O, and 0.07 mm for H. An exposure of one second was used for N with the following pairs: NII 3994, 995 A and TII 3889, 954 A and TII 3998, 640 A. In analysis for O the relative intensity of the lines OII 4705, 32 and OII 4596, 13 A and of the background was determined. In the case of H the darkening of the line H 6563 A was measured. The error in the determination of N is $\pm 25\%$; of O, $\pm 20-40\%$ (as the energy of the discharge is increased, the intensity of the O-lines at first increases and then begins to drop off); and for H, $\pm 8.8\%$ for heat treated samples and $\pm 15.5\%$ for samples which have not been heat treated. For the determination of H in powdered Ti briquetted electrodes are used. Standard briquettes are prepared from titanium hydride and Cu powder. The error is $\pm 10-13\%$.

Card 2/2

SOV/137-57-11-22758D

Translation from: Referativnyy zhurnal, Metallurgiya, 1957, Nr 11, p 304 (USSR)

AUTHOR: Fal'kova, O. B.

TITLE: Determination of Nitrogen and Oxygen in Steel by the Spectroscopic Method (Opredeleniye azota i kisloroda v stali spektral'nym metodom)

ABSTRACT: Bibliographic entry on the Author's dissertation for the degree of Candidate of Technical Sciences, presented to the Mosk. in-t stali (Moscow Steel Institute), Moscow, 1957

ASSOCIATION: Mosk. in-t stali (Moscow Steel Institute), Moscow

Card 1/1

PHASE I BOOK EXPLOITATION 1044

Lomonosova, Liya Simonovna and Fal'kova, Ol'ga Borisovna

Spektral'nyy analiz (Spectral Analysis) Moscow, Metallurgizdat, 1958. 420 p.
7,000 copies printed.

Ed.: Striganov, A.R., Doctor of Physical and Mathematical Sciences; Ed. of Publishing House: Berlin, Ye.N.; Tech. Ed.: Karasev, A.I.

PURPOSE: This book is intended as a textbook for metallurgical institutes, and may also be used to advantage by technicians working in spectroscopy laboratories.

COVERAGE: The author explains the theoretical aspects of spectral analysis. He describes the spectroscopic equipment used in this field, the techniques of using such equipment, and also brings out the important role played by spectral analysis in industry, especially in ferrous and nonferrous metallurgy. In Chapter VI the author lists several errors of measurement, random and systematic, of quantitative analysis. Recognition is given by the author to A.R. Striganov, V.G. Koritskaya, S.M. Rayskaya, I.M. Kuznetsov, Kh.E. Sterin,

Card 1/9

Spectral Analysis 1044

L.I. Filimonov, and V.S. Kalaykov for their help in compiling this book.
There are 84 references, all Soviet.

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Spectral Analysis 1044

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AVAILABLE: Library of Congress

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1-22-59

66356

SOV/81-59-19-67722

5.5310

Translation from: Referativnyy zhurnal. Khimiya, 1959, Nr 19, pp 124 - 125 (USSR)

AUTHORS: Sventitskiy, N.S., Sukhenko, K.A., Fal'kova, O.B., Galonov, P.P.,
Taganov, K.I., Alpatov, M.S.

TITLE: The Spectral Analysis of Titanium, Molybdenum and Their Alloys for
Nitrogen, Hydrogen and Oxygen

PERIODICAL: Fiz. sb. L'vovsk. un-t, 1958, Nr 1(9), pp 225 - 231

ABSTRACT: The determination of 0.01 - 3% N in titanium is carried out at
excitation of the spectrum by a low-voltage spark at a capacitance
of 280 μ farad with an inductance equal to zero and with the application
of a W-electrode of 6 mm in diameter sharpened to a rounded cone; spark
gap 0.3 mm. The vacuum chamber of the light source is evacuated to
10⁻² mm Hg and filled up with helium to a pressure of 700 mm Hg. The
spectra are photographed on an ISP-51 spectrograph with a camera of F =
270 mm, a slit of 0.015 mm and an exposure of 1 sec on spectral plates
of type II and III. The determination is carried out by the line N
3994.99 A being compared to Ti 3889.95 or Ti 3998.64 A. The mean
arithmetic error of an individual determination is 25%. The possibility

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SOV/81-59-19-67722

The Spectral Analysis of Titanium, Molybdenum and Their Alloys for Nitrogen, Hydrogen and Oxygen

of N determination at the excitation of the spectrum by a low-voltage pulse discharge from a capacitance of $4,000 \mu$ farad has been shown. The determination of 0.1 - 1% O in Ti is carried out also in a pulse discharge but at a capacitance of 400μ farad without introduction of inductance; the discharge vessel is filled up with helium to a pressure of 500 mm Hg. The distance between the sample and the carbon rod of 6 mm in diameter sharpened to a truncated cone is 1 mm; the slit width of the spectrograph is 0.02 mm. The lines O 4705.32 and O 7771.9 A are compared with the background of the spectrum. For photographing one spectrum 80 pulses are necessary. It has been shown that the intensity of the O lines depends in different ways on the energy of the discharge for different metals, e.g. for Ti the optimum intensity is reached at 400μ farad, for molybdenum at $4,500 \mu$ farad. Concentrations of 0.005 - 0.15% H in Ti are found at the excitation of spectra by a single low-voltage pulse discharge at a capacitance of $2,000 \mu$ farad, a tension of 270 v and a self-induction of 10μ henry between the sample cathode and the Cu-electrode of 3 - 5 mm in diameter sharpened to a point; the discharge takes place in the interelectrode gap of 0.3 mm in the air medium. The spectra are photographed on an ISP-51 spectrograph with a UF-85 camera

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SOV/81-59-19-67722

The Spectral Analysis of Titanium, Molybdenum and Their Alloys for Nitrogen, Hydrogen and Oxygen

with $F = 1,300$ mm at a slit of 0.07 mm on a panchromatic film with a sensitivity of 250 State Standard (GOST) units. A spectrograph with a camera of $F = 270$ mm can also be used. The blackening of the line H 6563.8 A shows a satisfactory dependence on the concentration without application of an inner standard. Every sample and standard is photographed on an ISP-51 spectrograph with a UF-85 camera with a cleaned surface. The preparation of samples and standards is carried out under the conditions of maximum cleanliness to avoid H-containing pollutions. The mean arithmetic error of an individual determination is $\pm 8.8\%$. In a similar way H is determined in Ti powder from which a briquet of 8 mm in diameter is prepared under a pressure of 160 atm. Samples of cast Ti serve as standards, to which equivalent H concentrations are ascribed based on powders of known composition. The error of analysis is $\pm 12\%$. The determination of N, H and O concentrations in molybdenum and its alloys is carried out under the same conditions as in Ti but the spectra are photographed from 2-4 pulses, in which case the sample serves as anode. In a low-voltage spark N is determined with a W-electrode; the line N 3995 is compared with the line W 3972 A; in the spectra of pulse discharge the same line is compared with the line Mo 3963.52 A. The mean arithmetic error for O and N is $\pm 25\%$.

Card 3/3

N. Sventitskiy 4

SVENTITSKIY, N.S.; SUKHENKO, K.A.; FAL'KOVA, O.B.; GALONOV, P.P.;
TAGANOV, K.I.; ALPATOV, M.S.

Spectrum analysis of titanium, molybdenum, and their alloys
for nitrogen, hydrogen, and oxygen. Fiz.sbor. no.4:225-231
'58. (MIRA 12:5)

1. Vsesoyuznyy ordena Lenina nauchno-issledovatel'skiy institut
aviatsionnykh materialov. (Spectrum analysis)
(Gases in metals)

ZHAVORONKINA, T.K.; FAL'KOVA, O.B.

Using the spectral method in climatology for the determination
of chlorine. *Fiz.sbor.* no.4:549-551 '58. (MIRA 12:5)

1. Morskoy gidrofizicheskiy institut AN SSSR.
(Precipitation (Meteorology)--Analysis) (Chlorine--Spectra)

FAL'KOVA, O.B.

RUSSIAN BOOK EXPIRATION 507/6317

Abstracts from USSR. Emphasis on analytical chemistry.
Analytical Chemistry of Gases in Metals. Moscow, 1960. 304 p.
[Series: Ser. Tekhn. Nau. 10] Extra slip inserted. 4,000 copies printed.
Sponsored Agency: Unknown. Institute: Institute of Analytical Chemistry
Moscow State Univ. Technology. Emphasis on analytical chemistry.
Vop. Khim. Anal. Vyscheysh. Akademichesk. Ts. of Publishing House: A.S. Khimichesk.
Moscow, 1961. 171. Braggit.

REMARKS: This work is intended for laboratory personnel concerned with gas
analysis in metals.
CONTRACT: The collection of articles is based on materials of the Commission on
Analytical Chemistry of Gases in Metals. The volume contains 10 articles. The
articles are: 1) The vacuum-fusion method, developed by E. A. Gerasimov,
V. A. Yermolov and the Soviet scientists S. P. Chibrikov and Yu. A. Ershov,
for the analysis of gases in steel and aluminum. 2) The analysis of gases in
of gases in other steels. 3) The research of I. M. Surverev and co-workers
for the analysis of gases in steel and aluminum. 4) The analysis of gases in
of gases in other steels. 5) The research of I. M. Surverev and co-workers
for the analysis of gases in steel and aluminum. 6) The analysis of gases in
of gases in other steels. 7) The research of I. M. Surverev and co-workers
for the analysis of gases in steel and aluminum. 8) The analysis of gases in
of gases in other steels. 9) The research of I. M. Surverev and co-workers
for the analysis of gases in steel and aluminum. 10) The analysis of gases in
of gases in other steels.

1. V. A. Yermolov, V. A. Gerasimov, S. P. Chibrikov, Yu. A. Ershov, I. M. Surverev, and
co-workers. Determination of gases in metals by the vacuum-fusion
method. 215
2. I. M. Surverev, V. A. Gerasimov, S. P. Chibrikov, Yu. A. Ershov, and
co-workers. The problem of the hydrogen content in structural steel. 219
3. I. M. Surverev, V. A. Gerasimov, S. P. Chibrikov, Yu. A. Ershov, and
co-workers. The problem of the hydrogen content in structural steel. 219

III. APPLICABLE FOR GAS ANALYSIS IN METALS

1. V. A. Yermolov, V. A. Gerasimov, S. P. Chibrikov, Yu. A. Ershov, I. M. Surverev, and co-workers. Determination of gases in metals by the vacuum-fusion method. 215	215
2. I. M. Surverev, V. A. Gerasimov, S. P. Chibrikov, Yu. A. Ershov, and co-workers. The problem of the hydrogen content in structural steel. 219	219
3. I. M. Surverev, V. A. Gerasimov, S. P. Chibrikov, Yu. A. Ershov, and co-workers. The problem of the hydrogen content in structural steel. 219	219
4. V. A. Yermolov, V. A. Gerasimov, S. P. Chibrikov, Yu. A. Ershov, I. M. Surverev, and co-workers. Determination of gases in metals by the vacuum-fusion method. 215	215
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7. V. A. Yermolov, V. A. Gerasimov, S. P. Chibrikov, Yu. A. Ershov, I. M. Surverev, and co-workers. Determination of gases in metals by the vacuum-fusion method. 215	215
8. I. M. Surverev, V. A. Gerasimov, S. P. Chibrikov, Yu. A. Ershov, and co-workers. The problem of the hydrogen content in structural steel. 219	219
9. I. M. Surverev, V. A. Gerasimov, S. P. Chibrikov, Yu. A. Ershov, and co-workers. The problem of the hydrogen content in structural steel. 219	219
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24/6/61

FAL'KOVA, O.S.

PLASMA SPECTROSCOPY 529/5443

Abstracts from USSR. Emphasis on analytical chemistry. Methods of determining metals in various samples. Moscow, 1950. 411 p. (Soviet Sci. Transl., 12) 3,500 copies printed.

Author: A.P. Vlasov, Leningrad, and D.I. Rybakov, Doctor of Chemical Sciences, M. of Polishing House, M. Valyevskiy, Tech. Ed.: S.V. Polyakov.

Abstract: This collection of articles is intended for chemists, metallurgists, and engineers. The articles describe methods for detecting and determining various elements and their traces in pure metals. Also discussed are many chemical, spectrochemical, electrochemical, spectrophotometric and other methods for analyzing materials of high purity. The editors by various Soviet scientific institutions, and are now widely used in various laboratories of the Soviet Union. No personal files are mentioned. References, mostly Soviet, accompany each article.

Author: A.P. Vlasov, Leningrad, and D.I. Rybakov, Doctor of Chemical Sciences, M. of Polishing House, M. Valyevskiy, Tech. Ed.: S.V. Polyakov.

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FAL'KOVA, O.B.

Chamber equipped with electric holders for the determination of
gases in metals. Trudy kom.anal.khim. 10:278-280 '60.
(MIRA 13:8)

(Gases in metals) (Chemical apparatus)

ALPATOV, M.S.; GALONOV, P.P.; SUKHENKO, K.A.; FALIKOVA, O.E.; Primali
uchastiye: METELINA, L.D.; MOISEYVA, K.A.; TISHIN, I.G.

Determination of the oxygen and nitrogen content in solid specimens
of molybdenum and chromium by the spectrum analysis method. Trudy
Kom. anal. khim. 12:288-297 '60. (MIRA 13:8)
(Molybdenum--Analysis) (Chromium--Analysis)
(Spectrum analysis)

BERNSHTEYN, L. Ye.; NALIMOV, V.V.; KAL'KOVA, O.B.

Planning of an experiment and presentation of its results in the estimation of the precision and accuracy of spectral methods of analysis of geological specimens. Zav.lab. 27 no.10:1254-1260 '61. (MIRA 14:10)

1. Tsentral'nyy nauchno-issledovatel'skiy geologorazvedochnyy institut i Gosudarstvennyy nauchno-issledovatel'skiy i proyektnyy institut redkometallicheskoj promyshlennosti. (Niobium oxide--Spectra)

BERENSHTEYN, L.Ye.; FAL'KOVA, O.B.

Evaluating the accuracy and correctness of the methods for the
determination of germanium and beryllium. Zav. lab. 29 no.10:
1217-1219 '63. (MIRA 16:12)

FALKOVA, T. D.
 CH

A fungus of the genus *Monilia* causing bluing of macaroni. T. D. Falkova and E. N. Mishutin. *Microbiology* (U. S. S. R.) No. 1, 54-7 (in English, 58) (1949). -- Occasional purple streaks on macaroni are produced at contact points with the paper on which the macaroni has been drying. The fungus is not pathogenic. Spores found on the paper are destroyed by heating for 10 min. at 100° advanced colonies, by 1 hr. at 100° 1. Faures

Microbiol Lab., Moscow Macaroni Factory

ADD-51A METALLURGICAL LITERATURE CLASSIFICATION

SEARCHED	SERIALIZED	INDEXED	FILED

SILIN, A.G.; FAL'KOVA, T.V.

Dynamics of photosynthesis in different corn varieties.
Fiziol. rast. 7 no. 5:507-515 '60. (MIRA 13:10)

1. Natural Sciences Institute of A.M. Gorky Perm University.
(Chelyabinsk Province--Corn (Maize))
(Photosynthesis)

KASATKINA, A.P.; FAL'KOVA, Ye.L.

Central regulation of the functions of the vegetative nervous system
and of the blood system. Zdrav. Kazakh. 21 no.2:21-25 '61.
(MIRA 14:3)

1. Iz kafedry nervnykh bolezney (zav. - dotsent M.Kh.Farizov)
Kazakhskogo meditsinskogo instituta.

(NERVOUS SYSTEM, AUTONOMIC)
(BLOOD—CIRCULATION, DISORDERS OF)

FAL'KOVA-KALIKO, Ye.L., dotsent

State of vascular reactivity in patients with the sequelae from light closed wounds of the cranium. Zdrav. Kazakh. 21 no.9:37-41 '61.
(MIRA 14:10)

1. Iz kafedry nervnykh bolezney (zav. - dotsent M.Kh.Farizov) Kazakh-
skogo meditsinskogo instituta.

(SKULL--WOUNDS AND INJURIES)
(BLOOD--CIRCULATION, DISORDERS OF)

35831

S/105/62/023/006/005/012
D250/D308

16.6800

AUTHORS:

Volgin, L.N. and Fal'kovich, A.I. (Moscow)

TITLE:

Synthesis of discrete data-processing devices with
a variable program

PERIODICAL:

Avtomatika i telemekhanika, v. 23, no. 6, 1962,
752-758

TEXT:

In the analysis of the data-processing devices the following requirements are aimed at: (i) complete elimination of the dynamic error in the shortest time, (ii) relative dispersion minimum of the random error and, (iii) a steady improvement in the accuracy of data processing with program complexity. The operational program of a discrete computer satisfying these requirements is a polynomial in z , whose order increases from the moment $i = 0$ of switching on and rises to unity within each step $H_i(z)$, where $H_i(z) =$ variable program. An algorithm of the variable program synthesis is formulated yielding complete elimination of the dynamic error. The condi-

Card 1/2

S/103/62/023/006/003/012
D230/D308

Synthesis of discrete ...

tion of minimum dispersion of random error is found to be fulfilled. as an example, a program is prepared for a discrete computer designed to extrapolate a two-bit random digital succession with the mean value $H(z) = \Omega(z)/(1-z)^{\mu}$. It is shown that the dynamic error disappears at the first step: Random error decreases with complexity of the operation program. As soon as the apparatus reaches a given accuracy the program is locked. In conclusion it is stated that the polynomial equations can be used successfully for the synthesis of a certain type of system with variable parameters. The solution of the polynomial equations to which the program synthesis is reduced, is a simple mathematical operation. The proposed data-processing device can be realized using ordinary digital computers. X

SUBMITTED: October 14, 1961

Card 2/2

FAL'KOVICH, A. M.

FAL'KOVICH, A. M. -- "Leprous Parodontitis." Sub 12 Jan 53, First
Moscow Order of Lenin Medical Inst. (Dissertation for the Degree
of Doctorate in Medical Sciences).

SO: Vechernaya Moskva January-December 1952

USSR / Human and Animal Morphology (Normal and Pathological). Nervous System. Peripheral Nervous System.

S

Abs Jour : Ref Zhur - Biologiya, No 4, 1959, No. 16940

Author : Fal'kovich, A. M.
Inst : Astrakhan Medical Institute
Title : Pathohistological Changes of the Suborbital Nerve in Patients with Leprosy, Suffering from Periodontosis

Orig Pub : Tr. Astrakhansk. med. in-ta, 1956, 12, No 2, 111-119

Abstract : On cadaver material (6 cases) the changes of nerve fibers in the form of varicose and spindle-shaped swellings, swellings of the myelin sheath and its fragmentation, are described. In the perineurium along the path

Card 1/2

USSR / Human and Animal Morphology (Normal and Pathological). Nervous System. Peripheral Nervous System.

S

Abs Jour : Ref Zhur - Biologiya, No 4, 1959, No. 16940

of the nerve leprous infiltrates are noted, which consist of lymphoid and plasmatic cells, fibroblasts and light foamy leprous cells with vacuolized protoplasm. In the leprous cells of the infiltrate, bacilli of leprosy of granular character are discovered. The conclusion is made that in periodontosis, not only the nervous system of the periodontium is affected, but also of its conductor, the suborbital nerve. -- V. S. Ivanov

Card 2/2

FAL' KOVICH, A. YA

29646.

Formy kam'er 1 vsasyvayushchikh trub turbinnykh Ustanovok Dlu Niekonapornykh
Syel'skokhoeyaystvyennykh GEG. Gidrotyekhnika 1 myelioratsiya, 1949, No.3,
s.56-66

e. Elyektrotyekhnika. Elyektrigikatsiya

SO: Letopis' No.40