

FEDOROWICZ, G.

Fiberboards from Reed, p.125.

PRZEGLAD PAPIERNICZY (Ministerstwo Przemyslu Drzewnego i Papierniczego
oraz Stowarzyszenie Naukowe-Techniczne Inzynierow i Technikow Przemyslu
Papierniczego)
Lodz, Poland
Vol. 14, no. 4, April 1958.

Monthly List of East European Accessions Index (EEAI), LC, Vol. 8, no. 11,
November 1959.
Uncl.

LEWINSKA, Janina

→ Jozef Fedorowicz, November 27, 1893–November 17, 1963.
Przegl geofiz 9 no. 2:174-175 '64.

FEDOROWICZ, Karol

Aluminum as construction material for the refining and petro-
chemical industry. Wiad naft 10 no.6:144-146 Je '64.

FEDOROWICZ, Zygmunt

The Warsaw Zoological Museum in its new attire. Przegl
zoolog 7 no. 1:78-88 '63.

3

0683
621.375.4 : 621.395.61 : 621.314.7
Fedorowski M. A Transformerless Class B Power Amplifier with Identical Transistors.

„Beztransformatorowy wzmacniacz mocy klasy B na tranzystorach identycznych”. (Prace Inst. Tele- i Radiol. No. 3), Warszawa, 1957
Inst. Tele- i Radiotechn., 22 pp., 16 figs.

An analysis of a single-ended push-pull AF power amplifier (output stage) with transistors of the same conductivity. A brief discussion on the merits of AF power amplifiers of different types is followed by a statement of the advantages of transformerless output stages. The analysis of circuit operation includes the method of calculation of the load resistance value which is optimal from the standpoint of maximum power output at predetermined DC main voltage, peak collector current and power dissipation ratings on the transistor, as also the method of determination of input impedance and driving power from the characteristics of a transistor. An example of calculation, the practical relations, diagrams embracing results of measurements, and methods of measurement are all given in the paper.

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FEDOROWSKI, W.

"Wages connected with agricultural surveys." (To be contd.) p. 111. (Przegląd Geodezyjny. Vol. 9, no. 4, April 1953. Warszawa.)

SO: Monthly List of East European Accessions, Vol. 3, No. 2, Library of Congress, February 1954, Uncl.

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Zastosowanie miernictwa w gospodarce rolnej.

Warszawa, Poland, Panstwowe Przedsiębiorstwo Wydawn.Kartograficznych, 1954. 164 p.

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Uncl.

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"Surveying technique in the work of agricultural establishments in the USSR. Conclusion". p. 361. (PRZEGLAD GEODEZYJNY Vol. 10. No. 12, Dec. 1954. Warszawa, Poland)

SO: Monthly List of East European Accessions. (EAL). LC. Vol. 4, No. 4 April 1955. Uncl.

FEDOROWSKI, W.

Use of aerial photography for monolithic classification
of soils. p. 254. ACTA PHYSICA POLONICA. Warszawa.
Vol. 12, No. 7, July 1956.

East European Accessions List (EEAL) Library of Congress
Vol. 5, No. 11, August 1956.

FEDOROWSKI, W.

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PRZEGLAD GEODEZYJNY

SCIENCE

Warszawa, Poland

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FEDOROWSKI, W. More legible aerial photographs for establishing a more unified soil classification. (Conclusion) p. 334.

Vol. 12, no. 9, Sept. 1956
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SCIENCE
Poland

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Basic principles of a new geodetic documentation for soil classification. p. 395

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Warszawa. Vol. 14, no. 10, Oct. 1958
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Monthly List of East European Accessions Index (EEAI), LC, Vol. 8, no. 6, June 1959
Uncl.

FEDOROWSKI, W.

Utilization of aerial photography for surveying in agricultural planning; a lecture at the 12th Scientific-Technical Conference. Also, remarks by S. Wojtulewicz. p. 50

PRZEGLAD GEODEZYJNY. (Stowarzyszenie Naukowe-Techniczne Geodetow Polskich)
Warszawa, Vol. 15, no. 2, Feb. 1959.

POLAND

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Uncl.

FEDOROWSKI; WALERY

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(16) (24)

1. "Topographic Utilization of Photogrammetry," Maria LIENIART, master of engineering; pp. 177-182.
2. "Photogrammetry in Mining," Prof. Zygmunt KWAJCZYK, doctor of engineering; pp. 183-191.
3. "Photogrammetry in Geological Research," Genant Zastawierski; pp. 192-197.
4. "Aerophotogrammetry and Agriculture," Walerij FEDOROWSKI, master of engineering; pp. 197-200.
5. "Aerophotogrammetry and Forestry," Krzysztof RUDZKI, master of engineering; pp. 201-205.
6. "Aerogrammetry Used for the Determination of the Wood Supply in Lowlands," Mieczysław SŁAWIŃSKI, master of engineering, of the Department of Forest Management of the Forestry Research Institute (Zakład Badawczy Lasu iarty-tulki Badawczy Lasowca); pp. 206-209.
7. "Photogrammetry and Country Planning," Viktor RICHENT; pp. 209-214.
8. "Photogrammetry Used for Road Planning and Road Building," Janusz JAWORSKI, master of engineering, of the Department of Photogrammetry of the Warsaw Polytechnic (Instytut Fotogrametrii Politechniki Warszawskiej); pp. 215-218.
9. "Photogrammetric Documentation in Architecture, Archaeology and Anthropology," Nieczysław WISNIEWSKI, master of engineering, of the Institute of Photogrammetry of the Warsaw Polytechnic (Zakład Fotogrametrii Politechniki Warszawskiej); pp. 218-221.
10. "Photogrammetric Methods for the Inventory of Historical Monuments," Jan Wlodek, master of engineering, assistant professor of the Institute of Land and Surveying (Zakład Techniki Ziemi i Pomiarów); pp. 221-225.
11. "The Warsaw Project," Dr. Jan FIEDOROWSKI, Zdzisław Adamczak; pp. 225-226.

FEDORTSEV, I., inzh.; MAGID, B., inzh.

Assembly of heavy equipment. Na stroi. Ros. 4 no.4:9-10
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(Petroleum refineries—Design and construction)

GRIGOR'YEVA, S.I., inzh.; FEDORTSEV, I.V., inzh.

Large-block assembly of tubestills. Trudy BashNIIS'troi no.1:
109-121 '62. (MIRA 17:3)

FEDORTSEV, V.

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(Rifles)

FEDORTSOV, B.

Sharing the experiences of the Polyustrovo housing construction combine. Na stroi. Ros. no.9:2-4 S '61. (MIRA 14:10)

1. Nachal'nik tekhnicheskogo upravleniya Glavnogo Leningradskogo upravleniya po zhilishohnomu i grazhdanskomu stroitel'stvu.
(Leningrad--Construction industry)
(Leningrad--Apartment houses)

FEDORISOV, B.D

Finishing wet plaster work. Stroitel' no.1:19 Ja '59.(MIRA 12:3)

1. Glavnyy inzhener tresta Lenotdelstroy-2.
(Painting, Industrial) (Paper hanging)

FEDORTSOV, B.D., inzh.

High building standards. *Biul.tekh.inform.* 5 no.2:12-13 F '59.
(MIRA 12:4)

(Leningrad--Building)

FEDORTSEV, B.D., inzh.

Cyclic assembly-line method of carrying out the finishing operations.
Bul. tekh. inform. po stroi. 5 no.6:27 Je '59. (MIRA 12:10)
(Plastering) (Interior decoration)

FEDORTSOV, B.D., insh..

Housing construction and civil engineering in West Germany.

Biul.tekh.inform.po stroi. 5 no.9:32-33 S '59.

(MIRA 12:12)

(Germany, West--Apartment houses)

FEDORTSEV, B.D., insh.

Pay more attention to building operations in winter. Biul.
tekhn.inform.po stroi. 5 no.10:29-30 O '59. (MIRA 13:3)
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FEDORTSOV, B.D.

Using simple methods in making mortars and concretes. Biul.
tekh.inform. po stroi. 5 no.11:31-32 N '59.
(MIRA 13:4)
(Mixing machinery) (Concrete) (Mortar)

FEDORTSOV, B.D.

Let's constantly improve the quality of construction. Biul.tekh.
inform.po stroi. 5 no.12:1-2 '59. (MIRA 13:4)

1. Nachal'nik Tekhnicheskogo otdela Glavleningradstroya.
(Construction industry)

GOLAND, Sh.N., kand.tekhn.nauk; LEDENTSOV, N.M., inzh.; NIKOLAYEV, A.S.,
inzh.; PAVLENKO, V.T., inzh.; PLAKIDA, M.A., kand.tekhn.nauk;
PORADNYA, A.I., doktor tekhn.nauk; SPIRIDONOVA, O.M., kand.tekhn.
nauk; SVYATSKIY, P.S., inzh.; FEDORTSOV, B.D., inzh., retsenzent;
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[Manual on finishing operations] Spravochnik po otdelochnym
rabotam. Pod red. A.I.Poradnia i O.M.Spiridonovoi. Leningrad,
Gos.izd-vo lit-ry po stroit., arkhit. i stroit.materialam,
1960. 497 p. (MIRA 1444)

1. Leningrad. Glavnoye stroitel'noye upravleniye.
(Finishes and finishing)

BOGDANOV, P.F.; ZHGUN, Ye.S.; FEDORTSOV, B.D., inzh., retsenzent;
REYZ, M.B., red.izd-va; VORONETSKAYA, L.V., tekhn. red.

[Preparation of paint materials centralized workshops] Za-
gotovka maliarnykh sostavov v tsentralizovannykh master-
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(Paint materials)

KARPOV, V.V., kand.tekhn.nauk; MEYTUS, M.E., kand.tekhn.nauk; TSUKERMAN,
N.Ya., inzh.; BELOLIKOV, V.N., inzh., nauchnyy red.; GREYTS, B.V.,
inzh., nauchnyy red.; KULIKOV, M.G., inzh., nauchnyy red.;
FEDORTSOV, B.D., inzh., nauchnyy red.; GRIGOR'YEVA, I.B., red.isd-va;
VORONETSKAYA, L.V., tekhn.red.

[Roofing and waterproofing operations; reference manual] Krovel'nye
i gidroizolatsionnye raboty; spravochnoe posobie. Pod obshchei
red. V.V.Karpova. Leningrad, Gos.isd-vo lit-ry po stroit., arkhitekt.
i stroit.materialam, 1961. 302 p. (MIRA 14:6)

(Roofing)

(Waterproofing)

GOLAND, Sh.N., kand. tekhn. nauk; LEDENTSOV, N.M., inzh.; NIKOLAYEV, A.S., inzh.; PAVLENKO, V.T., inzh.; PLAKIDA, M.A., kand. tekhn. nauk; PORADNYA, A.I., doktor tekhn. nauk; SPIRIDONOVA, O.M., kand. tekhn. nauk; SVYATSKIY, P.S., inzh.; FEDORTSOV, B.D., inzh., retsenzent; KAPLAN, M.Ya., red. izd-va; PUL'KINA, Ye.A., tekhn. red.

[Handbook of finishing operations] Spravochnik po otdelochnym rabotam. Pod red. A.I.Poradnia i O.M.Spiridonovoi. Leningrad, Gos. izd-vo lit-ry po stroit., arkhit. i stroit. materialam, 1961. 497 p. (MIRA 14:7)

1. Leningrad. Upravleniye po zhilishchnomu i grazhdanskomu stroitel'stvu.

(Finishes and finishing)

FEDORTSOV, Boris Dmitriyevich; IVANOV-SKOBLIKOV, P.V., red.; FREGER,
D.P., red. izd-va; BELOGUROVA, I.A., tekhn. red.

[Taking measures to raise the quality of construction] Mero-
priiatia po povysheniiu kachestva stroitel'stva; opyt Glav-
leningradstroia. Stenogramma leksii. Leningrad, Leningr.
dom nauchno-tekhn.propagandy, 1962. 26 p. (MIRA 15:8)
(Construction industry)

SUPONITSKIY, Zakhar Grigor'yevich; FEDORTSOV, B.D., inzh., retsenzent;
ROTENBERG, A.S., red.izd-va; CHERKASSKAYA, F.T., tekhn.red.

[Assembly-line cycle method of organizing finishing operations]
Potochno-tsiklichnyi metod organizatsii otdelochnykh rabot;
iz opyta tresta Lenotdelstroi-2. Leningrad, Gos.izd-vo lit-ry po
stroit., arkhitekt. i stroit.materialam, 1962. 114 p.

(MIRA 15:4)

1. Nachal'nik tekhnicheskogo upravleniya Glavleningradstroya
(for Suponitskiy).

(Building--Details)

FEDORTSOV, B.F., kandidat tekhnicheskikh nauk.

Asymmetric suppression of side spectra. *Elektresviaz'* 10 no.2:
9-21 F '56. (Phototelegraphy) (MIRA 9:6)

FEDORTSOV, B.F.

RADVINSKAYA, A.S., [translator]; FEDORTSOV, B.F., red.; BERGMAN, P.Ya.,
red.; ZABRODINA, A.A., tekhn.red.

[Present-day apparatus for phototelegraphy; a collection of
translations] Sovremennaya fototelegrafnaya apparatura; sbornik
perevodov. Moskva, Gos.energ. izd-vo, 1958. 279 p. (MIRA 11:7)
(Phototelegraphy)

PHASE I BOOK EXPLOITATION

SOV/4006

Fedortsov, Boris Fedorovich

Fototelegrafiya (Telephotography) Moscow, Gosenergoizdat, 1960. 354 p.
5,000 copies printed.

Ed.: P. Ya. Bergman; Tech. Ed.: Ye. M. Soboleva.

PURPOSE: This monograph is intended for technical personnel engaged in the production and operation of telephotographic equipment, for scientists, and for students studying this field of communications at schools of higher learning.

COVERAGE: The author presents the foundations of telephotography and the principles of the design of equipment. Analyzers, synthesizers and the path of an electric signal are discussed in detail. The problems of synchronization and phasing, the methods of transmitting a telephotographic signal through cable and radio channels, the causes of picture distortions and evaluation of reproduction quality are also discussed. The author thanks Professors P. A. Kotov and N. B. Zeliger. There are 106 references: 93 Soviet, 10 English, and 3 German.

Card 1/8

FEDORTSOV, Boris Fedorovich, inzh.-podpolkovnik, kand. tekhn. nauk; BOYKOV,
M.A., red.; SOLOMONIK, R.L., tekhn. red.

[Phototelegraphy engineering] Fototelegrafnaia tekhnika. Moskva,
Voen. izd-vo M-va obr. SSSR, 1961. 246 p. (MIRA 14:8)
(Phototelegraphy)

FEDORTSOV, BORIS FEDOROVICH

Fototelegrafnaya Tekhniya. Moskva, Voenizdat, 1961.

246 p. Illus., diagrs., Graphs., Tables.

Bibliography: 245 p.

FEDORTSOV, Leonid Mironovich; LESHCHINSKIY, Il'ya Shayevich; VLADIMI-
ROV, V.T., inzh.-polkovnik, red.; KRASAVINA, A.M., tekhn.red.

[Crystal mixing detectors] Kristallicheskie smesitel'nye
detektory. Moskva, Voen.isd-vo M-va obr.SSSR, 1960. 61 p.
(MIRA 13:6)

(Radio detectors)

PHASE I BOOK EXPLOITATION

SOV/4245

Fedortsov, Leonid Mironovich, and Il'ya Shayevich Leshchinskiy

Kristallicheskiye smesitel'nyye detektory (Crystal Mixer Detectors) Moscow, Voenizdat M-va obor. SSSR, 1960. 61 p. (Series: Radiolokatsionnaya tekhnika). No. of copies printed not given.

Ed.: V.T. Vladimirov, Engineer Colonel; Tech. Ed.: A.M. Krasavina.

PURPOSE: This booklet is intended for officers engaged in the operation of radio engineering facilities. It can also be used by the general reader interested in getting acquainted with the work of individual units and components of radar.

COVERAGE: The authors explain briefly the purpose, principle of operation, structure and basic parameters of crystal mixer detectors operating in the centimeter wave range. They discuss the special features of joint operation of the radar receiver protection arrester and of the mixer detector. Rules for using crystal detectors are presented. A list of booklets included in

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Crystal Mixer Detectors

80V/4245

the series "Radar Technique" is given on the 3rd page of the cover. There are no references. No personalities are mentioned.

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Crystal Mixer Detectors

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- III. Rules For Applications of Crystal Mixer Detectors
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AVAILABLE: Library of Congress

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FEDORTSOV, V.

Steadiness of weapons. Voen. znan. 41 no.8:38-39 Ag '65. (MIRA 18:7)

1. Instruktor-metodist Frunzenskogo rayonnogo strelkovo-sportivnogo kluba Vsesoyuznogo dobrovol'nogo obshchestva sodeystviya armii, aviatsii i flotu SSSR, Moskva.

SPERANSKAYA, T.A.; FEDORTSOV, V.F.

Standardization of methods for measuring optical characteristics
of gluing films made of polyvinyl butyral. Standartizatsia 26
no.6:28-29 Je '62. (MIRA 15:7)
(Film (Chemistry)--Testing)

FEDORTSOV, V.I.; FEDOROVSKIY, G.N., kand.med.nauk

Peculiarities in the nocturnal sleep of patients with atherosclerosis of the vessels of the brain with mental disorders according to electroencephalography data. Trudy 1-go MMI 21: 192-203'63. (MIRA 16:9)

1. Kafedra psikhiatrii (zav. - prof. V.M.Banshchikov) 1-go Moskovskogo ordena Lenina meditsinskogo instituta imeni I.M. Sechenova.

(CEREBRAL ARTERIOSCLEROSIS) (PSYCHOSES)
(ELECTROENCEPHALOGRAPHY) (SLEEP)

FEDORTSOV, V.I.

Disorders of sleep and their treatment in cerebral atherosclerosis
with mental sequelae. Trudy 1-go MMI 25:208-219 '63. (MIRA 17:12)

1. Kafedra psikiatrii 1-go Moskovskogo ordena Lenina meditsinskogo
instituta imeni I.M.Sechenova (zav. kafedroy prof. V.M.Banshchikov).

FEDORTSOV, V.I.

Use of the new sleep-inducing drug hexobarbital in sleep disorders.
Trudy 1-go MMI 25:450-456 '63. (MIRA 17:12)

1. Kafedra psikhiatriti 1-go Moskovskogo ordana Lenina meditsinskogo
instituta imeni I.M.Sechenova (zav. kafedroy prof. V.M.Panschnikov).

KOVALEVA, Z.Ya., kand. med. nauk: FEDORTSOV, V.I.

Use of proprazin in sleep disorders of different origin. Trudy 1-go MMI
25:457-464 '63. (MIRA 17:12)

1. Kafedra psikhiiatrii 1-go Moskovskogo ordena lenina meditsinskogo
instituta imeni I.M.Sechenova (zav. kafedroy prof. V.M.Banshchikov).

FEDORTSOV, Ye.

Moscow - Telegraphers

Study at the Moscow Central Telegraph Sov. sviaz. 3 no. 1, 1953

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

FEDORTSOV Ye. P.

BRONNER, B.V., otvetstvennyy za vypusk; FEDORTSOV, Ye.P., otvetstvennyy
za vypusk

[Telegraph Center of the Soviet Union; a collection commemorating
the 40th anniversary of the October Socialist Revolution]
TSentral'nyi telegraf Sovetskogo Soiuza; sbornik k 40-i godovshchine
Oktiabr'skoi sotsialisticheskoi revoliutsii. Moskva, 1957. 167 p.
(MIRA 11:4)
(Telegraph)

FEDORTSOV, Yu.P.

Contribution of the workers of the Central Telegraph of the
U.S.S.R. Vest.sviazi 21 no.10:16 0 '61. (MIRA 14:10)
(Telegraph)

FEDORTSOV, Ye.P.

An outstanding brigade leader. Vest.sviazi 25 no.2:26 F '65.
(MIRA 18:6)

1. Predsedatel' mestnogo komiteta Professional'nogo soyuza
rabotnikov svyazi, rabochikh avtomobil'nogo transporta i
shosseynykh dorog Tsentral'nogo telegrafa SSSR.

CHULOSHNIKOV, M.I.; FEDORTSOV-LUTIKOV, G.P.

Apparatus for determining the creep of materials at elevated temperatures.
Patent U.S.S.R. 77,716, Dec. 31, 1949.
(CA 47 no.19:9680 '53)

FEDORTSEV-LUTIKOV, G.P., kandidat tekhnicheskikh nauk; GRIBOYEDOVA, T.S.,
inzhener; BOROVTSOVA, Ye.D., inzhener; SGLBNEVA, G.A., inzhener.

Study of the properties of 1Kh18N10T steel in connection with its
use for steam boiler tubes. Energomashinostroenie no.3:18-22
D '55. (MLRA 9:5)

(Steel--Testing)

MATVEYEV, S.I., kandidat tekhnicheskikh nauk; ~~FEDORTSOV-LUTIKOV, G.P.~~,
kandidat tekhnicheskikh nauk; ~~TERESHKOVICH, A.S.~~, inzhener.

Investigation of the heat-resisting properties of the second
experimental casting of austenite steel. [Trudy] TSHIITMASH 71:
139-148 '55. (MLRA 9:8)

(Steel castings--Testing)

FEDOROV, LUTIKOV, G.P., kandidat tekhnicheskikh nauk; VERESHKOVICH, A.S.,
inzhener.

Investigation of austenite steel of ten industrial smelts. [Trudy]
TSNIITMASH 71:149-163 '55. (MLRA 9:8)
(Steel--Testing)

FEDORTSOV, LITVINOV, G.P., kandidat tekhnicheskikh nauk; FROLYGINA, T.S.,
inzhener; SUROVTSEVA, Ye.D., inzhener; SGIBNEVA, G.A., inzhener.

Investigation of the strength of 1Kh18N9T steel at elevated tempera-
tures. [Trudy] TSNIIIMASH 71:176-191 '55. (MLRA 9:8)
(Steel--Testing)

Fedorov - Lutikov, G. P.

137-1957-12-25415

Translation from: Referativnyy zhurnal, Metallurgiya, 1957, Nr 12, p 351 (USSR)

AUTHORS: Trusov, L. P., Fedorov-Lutikov, G. P., Mitrofanov, V. G.

TITLE: The IP-4M Machine for Determining Long-Time Tensile Strength Under Creep
(Mashina dlya ispytaniya na polzuchest' -dlitel'nyuyu prochnost' IP-4M)

PERIODICAL: V sb.: Prochnost' metallov. Moscow, AN SSSR, 1956, pp 91-99

ABSTRACT: A description of design changes performed on the IP-2 testing machine in order to explore the simplest and the most reliable methods for testing metals at elevated temperatures. Specifications for the new testing machine IP-4M (improved IP-2 model), developed at the TsNIITMash, are shown. Temperature regulation in the furnace of the IP-4M is accomplished automatically by means of an EPD-17 potentiometer; in addition, the furnace is equipped with a dilatometric temperature regulator, which controls the electronic potentiometer and also regulates the temperature in the event of failure of the potentiometer or the thermocouple. A control panel ensures temperature regulation at 108 points. Temperature is measured by means of a PP-11 potentiometer of class 0.25, with a range of 0 to 71 mv. Jack switches of PD-6

Card 1/2

137-1957-12-25415

The IP-4M Testing Machine for Creep and Endurance Strength

type are employed in the thermocouple circuits. Automatic temperature compensation for the free terminals of thermocouples is accomplished by means of a special unit of the KT-54 type, group KhA. The mechanical system of the machine remained essentially unaltered. All component units of the IP-4M machine have exhibited sufficient strength and reliability required for the experiments during long periods.

Z.F.

1. Metals-Tensile properties-Testing equipment
2. Metals-Creep-Testing equipment
3. Metals-Thermodynamic properties-Testing equipment

Card 2/2

FEDORTSOV-LUTIKOV, G. P.

Effect of alloying elements on the high-temperature strength properties of chromium stainless steels. G. P. Fedortsov-Lutikov, and M. F. Izhmenev. *Metallurgicheskii Zhurnal* 1956, No. 6, 3-16. — The aim of the research was to produce a post-austenitic steel, not containing Ni, for use at 600° in steam-turbine blades. The basic analysis of C 0.16-0.18, Cr 10-12, Mo 0.6-0.8, and V 0.15-0.25% was chosen on the basis of previous British and American work. The effects of single additions of V 0.23-0.08, Nb 0.15-0.71, Ti 0.13-0.55, W 0.22-3.90, or W 0.80-3.4% with 0.35% Nb and 0.9% Ni were studied. Twelve-kg. ingots produced by induction melting were forged into bars. The bars were oil quenched after being heated at 1050° for 1 hr. and were tempered for 3 hrs. at 650° followed by air cooling. The grain sizes were in the range 6-8. The mech. properties at 20, 600, and 630° were plotted as a function of alloy content. The creep rate of the base composition was decreased by 6.3% V, but was increased by 1.0% V. It was also decreased by Nb and W, but was unchanged by Ti. Extensive analyses were given of carbide residues obtained from the heat-treated steels and from steels aged 10,000 hrs. at 600°. The analyses of the ferrites were also tabulated. Rupture tests were carried out at 600° with a stress of 11 kg./sq. mm. For specimens that failed to break in 1600 hrs. the stress was raised to 20 or 25 kg./sq. mm. The 3.4% W alloy with Nb and Ni had the best properties with a 10,000-hr. strength of 18 kg./sq. mm. Although Nb increased the tensile strength of the alloy considerably, it decreased the impact strength and made heat-treating more difficult. Strengthening of the ferrite was the principal cause of in-

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FEDOROV-LUTIKOV (1) ...

creased high-temperature strength, although the presence of
speed carbides helped. The new steel was the first
of its kind.

and 1/2 inch rupture strengths at 2000 psi
of 11.2/24 inch respectively, with a strength
of 11.2/24 inch respectively. The
strengths were 11.2/24 inch
and 11.2/24 inch respectively.

SOV/137-57-10-20283

Translation from: Referativnyy zhurnal, Metallurgiya, 1957, Nr 10, p 270 (USSR)

AUTHORS: Fedortsov-Lutikov, G.P., Griboyedova, T.S.

TITLE: Cast Austenitic Steel of Diminished Tendency to Intergranular Corrosion (Litaya austenitnaya stal' s ponizhennoy sklonnost'yu k mezhkristallitnoy korrozii)

PERIODICAL: V sb.: Ispytaniya i svoystva zharoproch. materialov. Moscow, Mashgiz, 1957, pp 87-104

ABSTRACT: An investigation is made into the influence of Ti and Nb upon the mechanical properties ($\sigma_{0.2}$, σ_b , δ , ψ , a_k) at room temperature and 650°C, fatigue strength at 650°C, as well as the influence of fatigue aging at 650°C upon the microstructure, mechanical properties, and the tendency to intergranular corrosion of cast austenitic steel (S) of various C content (0.06-0.19%). It is found that reduction in C to 0.08-0.11% and introduction of powerful carbide-formers - Ti and Nb - in the quantities necessary to take up all the C into carbides renders cast austenitic S virtually free of intergranular corrosion after 500 hours of aging at 650°C in gaseous combustion products. Yet the mechanical properties at room and elevated

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SOV/137-57-10-20283

Cast Austenitic Steel of Diminished Tendency to Intergranular Corrosion

temperatures are higher than in the S of the basic composition with greater C and smaller Ti. The presence of Ti and Nb stabilizes the structure of the S and does not lead to formation of α and σ phases if the C contents are not reduced to 0.06%. Steel with Ti and Nb has higher properties of heat resistance than S with Ti alone, but the latter retains higher plastic properties and α_k . As a result of the investigation, 2 new modifications of heat-resistant austenitic S for large parts of steam and gas turbines are recommended. The C content of one of these should be <0.1%, and that of Ti 0.55%, while in the other S the C content is \leq 0.12%, Ti 0.15-0.25%, and Nb 0.9-1.1%.

M.Sh.

Card 2/2

Fedortsov-Lutikov, G. P.

AUTHORS: Gel'man, S., Griboyedova, T. S., Ye. A. Davidovskaya, Lazarev, B. I., Lyubavskiy, K. V. Slepak, E. S., Trunin, I. I. and Fedortsov-Lutikov, G. P.

TITLE : Investigation of the Steel LX18H12T as Tube Material for Power-generation Equipment (Issledovaniya stali lKhl8H12T v kachestve trubnogo materiala dlya energoustanoek)

PERIODICAL: Metallovedeniye i Obrabotka Metallov, 1958, No. 3, pp. 16 - 24 (USSR).

ABSTRACT: For producing tubes operating at super-critical steam parameters, it is necessary to have available a cheap, strong and ductile material which has a stable structure and stable properties at 550 to 650 °C, is not inclined to develop inter-crystallite corrosion and possesses good technological properties. The work carried out in 1952 and 1953 by TsNIITMASH jointly with the imeni Ordzhonikidze Works (Ref. 1) proved that it was possible to utilize cheap steel of the type LX18H9T for operation at high temperatures. Later, complex investigations were carried out with this steel as a material for tubes of super-critical parameter power-generation equipment. The steel LX18H9T may contain large quantities of ferrite and, after long-duration annealing at 600 to 700 °C, it embrittles due to the formation of a σ -phase. Increase in the nickel content

Investigation of the Steel 1X18H12T as tube Material for Power-generation Equipment

to 11-13% brought about an appreciable increase in the stability of the austenite without affecting the high strength. This steel designated as 1X18H12T steel, does not show any σ - or σ' -phase separation during ageing at 700 °C for 10 000 hours and at 750 °C for 3 000 hours; only slight quantities of carbides were found to separate out. Thereby, the impact strength is maintained at 22-24 kg/cm² for this steel, whilst in the case of the steel 1X18H9T, it drops to 9-18 kg/cm². The investigations described in this paper were carried out on commercial tubes, rods and also on laboratory produced steels with compositions as given in Table 1, p. 16. The results are entered in tables and plotted in graphs. It is concluded that the steel 1X18H12T, containing 0.08-0.12% C, max. 75% Si, 1-2% Mn, 17-18,5% Cr, 11-13% Ni, max. 0.20% S and max. 0.035% P, is suitable for operation at high temperatures; the Ti content of the steel is thereby determined by means of the formula $5(C-0.02)$. The best combination of mechanical properties was obtained after annealing at 1 050 to 1 100 °C for 30 min. and cooling in air, and this regime is recommended for tubes as well as for bends. Weld joints should be annealed at 1 000 to 1 050 °C for 1 hour and then cooled in air. The mechanical properties of steels

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Investigation of the Steel 1X18H12T as Tube Material for Power-generation Equipment

heat-treated in accordance with these recommendations are entered in Table 6, p. 24, for test temperatures of 20, 600, 650 and 700 °C. Practically no embrittlement takes place for this steel after ageing at 600 and 750 °C for durations of 3 000 and 10 000 hours; no σ -phase formation could be detected after such ageing for steel containing 12% Ni, whilst under similar conditions, σ -phase formation can occur in steel containing 10% Ni. Preliminary, non-uniform work-hardening influences the ultimate strength of the steel, but does not influence appreciably the ductility in the case of long-duration loading. In the case of contact-welding of tubes of superheaters, the strength of non-heat-treated weld joints is not lower than that of the base metal. Steam at 600 °C and long-duration tests for up to 3 000 hours do not affect appreciably the long-duration strength of the steel and of welded joints. The steels 1X18H12T and 1X18H9T are less inclined to develop thermal fatigue than the steel 1X14H14B2M, and the authors recommend using the steel 1X18H12T for tubes of power-generating equipment, operating with steam of super-critical parameters. There are 5 figures, 6 tables and 8 references, 5 of which are Russian, and 3 English.

Investigation of the Steel 1X18H12T as Tube Material for Power-generation Equipment

ASSOCIATION: TANIITMASH

AVAILABLE: Library of Congress

Card 4/4

FEDORTSOV-LUTIKOV, G.P., kand.tekhn.nauk; GRIBOYEDOVA, T.S., inzh.

Suitability of 1Kh18N12T and EI-724 steels for tubes for boiler units with very high pressures and temperatures. Energo-mashinostroenie 4 no.5:28-34 My '58. (MIRA 11:9)
(Steel)

18(5) PHASE I BOOK EXPLANATION 807/2103

Structural'77 machno-isalidovatel'skiy Institut tekhnologii i mashinostroyeniya
Struktura i svoystva abrazuyemykh materialov; [obornoi] (Structure and Prop-
erties of Heat-Resisting Materials; Collection of Articles) Moscow, Nauka, 1959.
(Series: Tekhn. Ser. 59) Irina sily izmereni. 4,000 copies
prints.

Additional sponsoring agencies: USSR, Gosobrazovaniya, Gosobrazovaniya i nauka
Glavnye upravleniya mashino-isalidovatel'skikh i stroitel'skikh organizatsiy.
M.: S.N. Petrovskiy, Candidate of Technical Sciences; M. of Publishing
House: S.N. Ivanov; Tech. Ed.: A. P. Dvornov; Managing Ed. for Literature on
Metal Working and Tool Making: S. S. Boyal'man.

NOTE: This book is intended for workers of scientific research institutes and
for engineering staffs of plant laboratories of the boiler and turbine
industries and power stations. It may also be useful to staffs of higher
educational institutions studying problems of physical metallurgy.

CONTENTS: This collection of articles describes results of work done at
Sverdlovsk on the strength of materials used commonly at high temperatures
in power plants. The articles deal with the mechanical properties of
steels, alloys, and cast irons, and with the heat treatment of heat-resisting
steels. The relations of properties of industrial materials used under high and
ultra-high pressures is given, and modern testing methods are discussed. In
generalizations are mentioned. References follow several of the articles.

TABLE OF CONTENTS:

Stroeva, L.L. [Quantities of Technical Sciences]. Effect of Preliminary Deforma-
tion on Behavior of Materials During Subsequent Operations at High
Temperatures 59

The influence of strain hardening by tension and torsion
on the strength and ductility of heat-resisting steels is dis-
cussed. The effect of strain hardening on creep resistance, and
recrystallization, and stability of mechanical properties, and
phase composition at aging is presented.

SECTION III. MATERIALS FOR HIGH AND ULTRA-HIGH PRESSURE WORK

Polakova-Litvinov, G.P. [Candidate of Technical Sciences], and V.A.
Dobryshin, V.I. [Candidate of Technical Sciences]. Investigation of IMALDUTY and K173 Steels for
Steel of Boiler Units 138

An investigation of physical, mechanical, and heat-resisting
properties of Cr-Mn austenitic steels is described. The phenomena
of thermal fatigue and aging of these steels are discussed.

Polakova-Litvinov, G.P., and V.P. Shabanov [Engineer]. Investiga-
tion of Properties of K173 Chrom Steel 208

An investigation of mechanical properties, creep strength and
creep rate at temperatures up to 600°C is presented.

Dobryshin, V.I., and K.L. Petrova. Change in Phase Composition of
K173 and K173 Steels, Due to Heat-Treating Conditions 217

The steels under investigation were oil-quenched at 1150°C
with subsequent aging at 600, 650 and 700°C. For up to 3,000 hours.
The change in phase composition was studied by means of structural
x-ray analysis and compared with results of chemical analysis and
metallographic investigation.

For 1,000 to 2,000 hours, are presented.

Dobryshin, V.I., V.A. Dobryshina [Engineer]. Electromagnetic Investiga-
tion of the Structure of Oxide Films on K1512 and K1673 Steels and a Group
of Fe-Cr-Ni-base Alloys 241

The structure of oxide films generated under various temperatures
and holding times is discussed. The influence of preliminary heat
treatment (investigation made after quenching and tempering) is
studied.

AVAILABLE: Library of Congress

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FEDORTSOV-LUTIKOV, G.P.

PLASMA I BOOK REFORMATION 80W/3559

Abstrakty nauki SSSR. Institut metallurgii. Nauchnyy sovet po probleme zharko-
prochnykh spлавov
Izvestiya nauchno-issledovatel'skogo instituta metallurgii, 1959. 425 p. Evreyskiy slub
2,000 copies printed.

Ed. of Publishing House: I.A. Elisev; Tech. Ed.: I.P. Kostina; Editorial
Board: I.P. Bardis, Academician, O.V. Kuryukov, Academician, S.Y. Agayev,
Corresponding Member, USSR Academy of Sciences (Moscow, U.S.S.R.), I.A. Glik,
I.M. Pavlov, and I.P. Zolotarev, Candidate of Technical Sciences.

PURPOSE: This book is intended for metallurgical engineers, research workers
in metallurgy, and may also be of interest to students of advanced courses
in metallurgy.

CONTENTS: This book, consisting of a number of papers, deals with the proper-
ties of heat-resisting steels and alloys. Each of the papers is devoted to
the study of the factors which affect the properties and behavior of steels.
The effects of various elements such as Cr, Mo, and V on the heat-resisting
properties of various alloys are studied. Deformability and workability
of certain steels as related to the thermal conditions are the object of
another study described. The problems of hydrogen embrittlement, diffusion
and the oxidation of ceramic coatings on metal surfaces by means of methods
and apparatus are considered. One paper describes the apparatus used for
studying the growth of microcracks in metals. Boron-base steels are actually
used for growing microcracks. Results are given of studies of microcracks
examined and evaluated. Results are given of studies of compressor blades and
the behavior of stress in metal. Tests of turbine and compressor blades are
described. So personalities are mentioned. References accompany most
of the articles.

Sushchik, V.G., and E.Y. Popov. Study of Certain Problems of the Temperature Dependence of the Plasticity of Steel From the Viewpoint of the Dislocation Theory	139
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TRUSOV, L.P., kand.tekhn.nauk; FEDORTSOV-LUTIKOV, G.P., kand.tekhn.
nauk; MITROPANOV, V.G., inzh.

Installation for testing creep and long-time strength of
heat resistant alloys. [Trudy] TSMIITMASH 100:107-115
'59. (MIRA 13:7)

(Heat-resistant alloys--Testing)

FEDORTSOV-LUTIKOV, G.P., kand.tekhn.nauk; SHESHENEV, M.F., inzh.

High-chromium semiferrite steels for blades and rotors of
steam turbines operating at temperatures from 575° to 600°.

[Trudy] TSNIIIMASH 100:162-182 '59. (MIRA 13:7)

(Chromium steel)

(Metals at high temperature)

FEDORTSOV-LUTIKOV, G.P., kand.tekhn.nauk; GRIBOYDOVA, T.S., inzh.;
TERESHKOVICH, A.S., inzh.; SOLOMOVTS, M.I., inzh.; LEVITSKIY,
D.N., kand.tekh.nauk

Cast austenite steels for stationary steam and gas tur-
bines. [Trudy] TSNITMASH 100:183-191 '59.

(MIRA 13:7)

(Steel castings) (Turbines)

69384

S/129/60/000/06/001/022

E073/E535

18.1130

AUTHORS: Silayev, A.F., Fedortsov-Lutikov, G.P., and Sheshenev, M.F.
Candidates of Technical Sciences

TITLE: Properties of Castings of the Steel 12Kh11V2NMF-L

PERIODICAL: Metallovedeniye i termicheskaya obrabotka metallov,
1960, Nr 6, pp 2-7 (USSR)

ABSTRACT: Use of austenitic steels for cast components of turbines and fittings operating at 600 and 610°C is inadvisable due to their high cost, low thermal conductivity and relatively poor technological properties. Therefore, intensive research work is being carried out in various countries to develop for this purpose pearlitic class steels and steels with 11 to 13% chromium. Investigations showed that if properly alloyed, pearlitic steels, and particularly stainless chromium steels of the type 1Kh13, are suitable for operation in this temperature range. The subject of the work described in this paper was to determine the effectiveness of small additions of horophilic elements (barium, calcium, cerium) on the properties of type 12Kh11V2NMF steel. For the purpose

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Properties of Castings of the Steel 12Kh11V2NMF-L

of comparison, one melt (7-10⁴) was produced without any additions. The chemical compositions of the commercial heats used in the experiments are entered in Table 1. Optimum heat treatment for this steel proved to be as follows: homogenization at 1090 ± 10°C; normalization at 1050 ± 10°C; tempering at 700 ± 10°C followed by cooling in the furnace. It was found that in the case of continuous cooling from the range of the austenitic state with speeds below 250°C/hr, there will only be pearlitic transformation, whilst for larger cooling speeds (250 to 3000°C/hr) pearlitic and intermediate transformations take place. The plot, Fig 1, contains data on the mechanical properties of this steel at 20°C for a melt containing Al-Ba-Ce alloying additions. The plot, Fig 2, shows the changes in the impact strength of steel as a function of the test temperature for material containing Al-Ba-Ce additions (curve a), for material without any additions (curve b) and for material with Ca additions (curve B).

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Properties of Castings of the Steel 12Kh11V2NMF-L

The relatively high structural stability of the material is evident from the data on the changes of the chemical composition of the residue produced by electrolytic dissolution of the steel after various ageing regimes, Table 2. Table 3 and Fig 3 show the results of long-run strength tests (up to 2600 hours) in the temperature range 600 to 670°C; the highest values were obtained for material containing small additions of Al-Ba-Ca. Under all test conditions fracture of the specimens occurred along crystallites which were intensively deformed in the neighbourhood of the fracture, as can be seen from the microstructure of a specimen fractured at 610°C after having been stressed for 1011 hours with a stress of 15 kg/mm². Fig 5 shows a plot of the creep limit of steel at 610°C for steel containing only Ca additions and for steel containing Al-Ba-Ca additions. The following conclusions are arrived at:

1) Introduction into the steel of a small quantity of a
Card 3/4 Al-Ba-Ca alloy does not result in any pyro-effect, brings

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EO73/E535

Properties of Castings of the Steel 12Kh11V2NMF-L

about a considerable improvement of the technological properties of the tested steel, an increase in the impact strength and ensures a higher degree of hardening in the original state and a less intensive process of softening during operation.

3) Introduction into steel of small quantities of Al-Ba-Ca alloys leads to a reduction of the nonuniformity in the properties along the cross-section and this appears to be due to a greater uniformity of the structure, which leads to a reduction of the size effect.

3) Steel specimens from a 1.3 ton casting, produced with a small addition of Al-Ba-Ca alloying material and subjected to "soft" heat treatment, had the following high temperature properties:

$$\sigma_{dr10^5}^{600^\circ\text{C}} = 10 \text{ kg/mm}^2; \quad \sigma_{dr10^5}^{610^\circ\text{C}} = 9 \text{ kg/mm}^2; \quad \sigma_{n \cdot 1 \cdot 10^{-5}}^{610^\circ\text{C}} = 5.8 \text{ kg/mm}^2$$

(dr = do razrusheniya - to failure).

There are 5 figures, 3 tables and 3 Soviet references. ✓

ASSOCIATION: TsNIITMASH

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PHASE I BOOK EXPLOITATION

SOV/6539

Silayev, Aleksandr Fedorovich, Georgiy Petrovich Fedortsov-Lutikov, and Mikhail Fedotovitch Sheshenev

Khromistyye zharoprochnyye stali dlya energomashinostroyeniya
(Heat-Resistant Chromium Steel for Power Machine-Building)
Moscow, Metallurgizdat, 1963. 183 p. Errata slip inserted.
2200 copies printed.

Ed.: R. M. Kireyeva; Ed. of Publishing House; A. L. Ozeretskaya;
Tech. Ed.: L. B. Dobuzhinskaya.

PURPOSE: This book is intended for engineering personnel engaged in designing, building, and operating power units. It may also be useful to research workers in metal science and to students at technical schools of higher education.

COVERAGE: The book presents data on chemical composition, structure, and properties of heat-resistant chromium steels used in power machine-building. Basic laws governing the

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Heat-Resistant Chromium Steel (Cont.)

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alloying of heat-resistant nonaustenitic steels and other problems of the heat-resistance theory are discussed. Engineering recommendations are made on the whole cycle of heat-treatment procedure applied to indicated steels. No personalities are mentioned. There are 63 references; 44 Soviet, 16 English, and 3 Czech.

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PART I. SOME PROBLEMS OF HEAT-RESISTANCE
THEORY AND BASIC PRINCIPLES OF
ALLOYING NONAUSTENITIC STEEL

Ch. I. Modern Concepts of Mechanisms of Plastic Deformation
and Fracture Under Creep Conditions 5
1. Mechanism of plastic deformation 7

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2

L. 13970-66 EWI(m)/EWA(d)/EWP(t)/EWP(z)/EWP(s)/EWA(h) LP(c) JD/BI/JS

ACC NR: AP6005395

SOURCE CODE: UR/0413/66/000/001/0151/0151

INVENTOR: Runov, A. Ye.; Sashchikhin, N. N.; Tereshkovich, A. S.; Fedortsov-Lutikov, G. P.

ORG: none

TITLE: Heat-resistant steel, Class 18, No. 148085 15
44, 44, 1 6

SOURCE: Izobreteniya, promyshlennyye obruztsy, tovarnyye znaki, no. 1, 1966, 151

TOPIC TAGS: steel, heat resistant steel, chromium containing steel, nickel containing steel, niobium containing steel, tungsten containing steel

ABSTRACT: This Author Certificate introduces a heat-resistant chromium—nickel—tungsten—niobium steel. To increase the steel heat resistance, castability, and weldability, its composition is set as follows: 0.08—0.12% C, 0.4—0.6% Si, 1.0—1.5% Mn, 15.0—16.5% Cr, 8.5—10.0% Ni, 3.0—4.0% W, 1.2% max Nb, 0.025% max S, and 0.03% max P. The ferrite content of the steel should not exceed 2—4% and should be controlled during the process of melting. 6 [ND]

SUB CODE: 11/ SUBM DATE: 14Jul61/ ATD PRESS: 4/91

Card 1/1 SC

FEDORTSOVA, I.D.

New technological processes for electroplating abroad. Avt.-
prom. 28 no.10:45-48 0 '62. (MIRA 15:9)
(Electroplating)

FEDORUK, A.I.

Auxiliary charts for calculating long-distance wire broadcasting
lines. Vest. svyazi 24 no.4:8-10 (MIRA 17:9)

1. Glavnyy inzh. Grodnenskogo ekspluatatsionno-tekhnicheskogo
uzla svyazi.

FEDORUK, F.F., RAPOPORT, L.I.

Case of acute appendicitis in tuberculosis of the spine with gravity abscess in the right iliac region [with summary in French]. Probl. tub. 36 no.3:101 '58 (MIRA 11:5)

1. Iz Severinovskogo kostno-tuberkuleznogo sanatoriya (glavnyy vrach F.F. Fedoruk) Vinnitskogo oblastdravotdela.

(TUBERCULOSIS, SPINAL, compl.

acute appendicitis, with abscess in right iliac region (Rus))

(APPENDICITIS, compl.

acute, with abscess in right iliac region in spinal tuberc. (Rus))

FEDORUK, F.F.

Surgical treatment of patients with spinal tuberculosis complicated by fistulae. Ortop., travm. i protez. 25 no.9:29-34 S '64. (MIRA 18:4)

1. Iz kliniki kostno-sustavnogo tuberkuleza (rukovoditel' - prof. B.S. Kutsenok) Ukrainskogo instituta tuberkuleza i grudnoy khirurgii imeni F.G.Yanovskogo. (dir. - dotsent A.S.Mamolat). Adres avtora: Kiyev 38, spusk Stepana Razina, d.7, Institut tuberkuleza.

FEDORUK G.D., aspirant,

A study of a stereometer with six control points. Trudy MIIGAIK
no.20:65-72 '55. (MIRA 10:1)

1. Moskovskiy institut inzhenerov geodezii, aerofotos"yemki, i
kartografii, Kafedra fotogrammetri.
(Aerial photogrammetry)

FEDORUK, G. D. Cand Tech Sci -- (diss) "Differentiated method of spatial
triangulation ^{using} ~~with the utilization~~ of conditions of sides, bases, and azimuths."
Mos, 1957. 25 pp (Min of Higher Education USSR, Mos Inst of Engineers of
Geodesy, Aerial Photography, and Cartography), 100 copies (KL, 5-58, 102)

FEDORUK, G. D.

3(4) PHASE I BOOK EXPLORATION 30V/2067
Moscow, Institut inzhenerov geodesii, aerofotos "yemki i kartografi-
Trudy, 77p. 28 (Transactions of the Moscow Institute of Geodetic,
Aerial Survey and Cartographic Engineers, Nr 28) Moscow,
Geozizdat, 1957. 110 p. 1,400 copies printed.

Ed.: A. I. Mamishvili; Ed. of Publishing House: T. A. Shmarova;
Tech. Ed.: V. V. Menonova.

PURPOSE: This collection of articles is intended for geodesists,
photogrammetrists, and cartographers.

COVERAGE: This issue contains articles on geodetic surveying,
photogrammetry, and cartography. The articles devoted to geodetic
surveying discuss errors in precise leveling, an engineer level,
and the speed of light in a vacuum. In the field of photogrammet-
ry there are articles on camera tilt, the use of photos of two
scales in densifying control, and the differential method of
aerial triangulation. Two articles in cartography discuss
Polish school atlases and the history of political admin-
istrative maps of the USSR. References accompany individual
articles.

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Chair of Photogrammetry, M.I.G.A.K.
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 Moscow. Institut Inzhenerov Geodesii, aerofoto i kartografi
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PURPOSE: This collection of articles is intended for geodesists,
 photogrammetrists, and cartographers.

CONTENTS: This issue of the Institute's Transactions is composed of
 articles on geodetic surveying, photogrammetry, cartography, and
 geodesy. Surveying and geodesy are discussed in articles on
 building line extensions, earthwork computations, precise trigono-
 metric leveling, latitude determination, solution of trigonometric
 equations, and the geodetic interference comparator. Articles on
 photogrammetry include the subheadings photo rectification, spatial
 triangulation, and photo interpretation. Articles in the fields of
 cartography and cartography include: 1) hunters' maps of Czechoslovakia,
 2) maps of the Trans-Oka Region of Moscow oblast, and 3) the
 distribution of lakes in the East European plains and the Kola-
 Karelian Massif. References accompany individual articles.

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FEDORUK, G.D., assistant

Accounting for base-line and azimuthal conditions in spatial
triangulation. Trudy MIIGAIK no.32:41-60 '58.(MIRA 12:7)

1. Kafedra fotogrammetrii Moskovskogo instituta inzhenerov
geodesii, aerofotos"yenki i kartografii.
(Triangulation) (Aerial photogrammetry)

67351

SOV/154-59-5-8/17

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AUTHOR: Fedoruk, G. D., Candidate of Technical Sciences

TITLE: Application of the Principle of Equal Sections for the Determination of the Flying Height of Chains of Triangulation From Photographs Based on Differential Methods

PERIODICAL: Izvestiya vysshikh uchebnykh zavedeniy. Geodeziya i aerofotos"yemka, 1959, Nr 5, pp 97-103 (USSR)

ABSTRACT: The method mentioned in the title which is used to determine the altitude of aerial triangulation chains is illustrated by the various methods of altitude measurement (by means of radio altimeters, by the method of the nondistorted model and by the method of the $TaNIIGAik$). The accuracy of determining the flying height has a strong influence on the accuracy of altitude measurement of an object (for data see table 1). It was found that in the case of regions with a more distinct relief the accuracy of these two determinations still decreases. It follows that the most accurate determination of flying height is achieved by the method of the nondistorted model. Here, the length of a certain spatial section between two points, a and b , is analytically determined from the coordinate increase of X , Y , and A (known geodetical coordinates).

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SOV/154-59-5-8/17

Application of the Principle of Equal Sections for the Determination of the Flying Height of Chains of Triangulation From Photographs Based on Differential Methods

When applying the principle of equal sections, it is possible to eliminate the effect of the relief on the accuracy of flying height determination in the evaluation of surveying of mountainous areas. Furthermore, the use of plans as a basis is no longer necessary. Thus, it is possible to enter the individual links of aerial triangulation chains according to scale, which was carried out by the method of the nondistorted model. The last-mentioned method may also be combined (closing of gaps in data obtained from radio altimeters). There are 1 figure and 3 tables. X

ASSOCIATION: Moskovskiy institut inzhenerov geodezii, aerofotos"yemki i kartografii
(Moscow Institute of Geodetic, Aerial Survey, and Cartographic Engineers)

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6735i

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Application of the Principle of Equal Sections for the Determination of
the Flying Height of Chains of Triangulation From Photographs Based on
Differential Methods

4

SUBMITTED: February 3, 1959

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FEDORUK, G.V., (Rostov-na-Donu)

Case of an open infected fracture of the tibia treated with Elanski's
tubular nail. Khirurgia, Moskva 32 no.9:80-81 S '56. (MIRA 12:7)

(TIBIA, fract.
causing infect., surg. use of tubular nail)

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SO: Monthly List of Russian Accessions, Vol 7, No 9, Dec 1954

GANOPOL'SKAYA, K.G.; FEDORUK, I.A.; MIKHALENOK, Ye.I., redaktor;
BONGARD, O.A., redaktor; KOLLI, A.Ya., redaktor; MODEL' B.I.,
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[High-speed metal cutting; a bibliography] Skorotenaia obra-
botka metallov rezaniem; bibliograficheskii ukazatel'. Moskva,
Gos.nauchno-tekhn.isd-vo mashinostroit.lit-ry. 1955. 232 p.
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FEDORUK, I.G.

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administration of Western Cement Enterprises. TScement 20 no.5:
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UTKIN, I.A. [deceased]; KURSKAYA, M.A.; FEDORUK, N.I.

Conditions of the origin and course of mitosis in the corneal epithelium of mice in vitro. TSitologia 4 no.1:27-31 Ja-F '62. (MIRA 15:4)

1. Laboratoriya eksperimental'noy tsitologii i tsitokhimii Instituta radiatsionnoy i fiziko-khimicheskoy biologii AN SSSR, Moskva.
(CELL DIVISION (BIOLOGY)) (CORNEA)

BLYUMBERG, I.B.; FEDORUK, L.I.

Kinetics of the consecutive reactions in the photographic process and sharpness of the image. Usp.nauch.fot. 1C:243-247 '64.

(MIRA 17:10)

L 46111-56 EWT(m)/EWP(t)/ETI IJP(C) JD/IN
 ACC NR: AP6023925 SOURCE CODE: UR/0363/66/002/007/1317/1319

AUTHOR: Markiv, V. Ya.; Gladyshevskiy, Ye. I.; Kripyakevich, P. I.; Fedoruk, T. I.

ORG: L'vov State University im. Iv. Franko (L'vovskiy gosudarstvennyy universitet)

TITLE: Titanium-nickel-silicon system

SOURCE: AN SSSR. ²⁷ ²⁷ ²⁷ Izv. Neorg materialy, v. 2, no. 7, 1966, 1317-1319

TOPIC TAGS: metal phase system, titanium, nickel, silicon, phase diagram

ABSTRACT: The study of the Ti-Ni-Si system was carried out as a part of a series of investigations concerned with phase equilibria and crystal structures of compounds in metal-metal-silicon systems. The binary systems comprising the ternary system were investigated in detail. The isothermal section of the Ti-Ni-Si system at 750°C was plotted (see Fig. 1). Six intermetallic compounds are formed in this system; three of them, $Ti_2Ni_3Si(\lambda_1)$, $Ti_6Ni_{16}Si_7(T)$ and $TiNiSi(E)$, were confirmed, and three, $TiNiSi_2$, $Ti_{14}Ni_{49}Si_{37}$ and $\sim Ti_{53}Ni_{37}Si_{10}$, were identified for the first time. The ternary compound $TiNiSi_2$ has a tetragonal structure with lattice constants $a = 12.58 \text{ \AA}$, $c = 4.97 \text{ \AA}$ (possible space groups: $D_{4h}^{17} = I4mmm$; $D_{2d}^9 = I4m2$; $D_{2d}^{11} = I42m$; $C_{4v}^9 = I4mm$; $D_4^9 = I422$). The number of atoms per unit cell is 56. The compound $Ti_{14}Ni_{49}Si_{37}$, similar to the γ_3 phase of the Ti-Co-Si system, crystallizes in the hexagonal system. In the crystallochemical sense, the Ti-Ni-Si system resembles the Ti-Co-Si system. Orig.

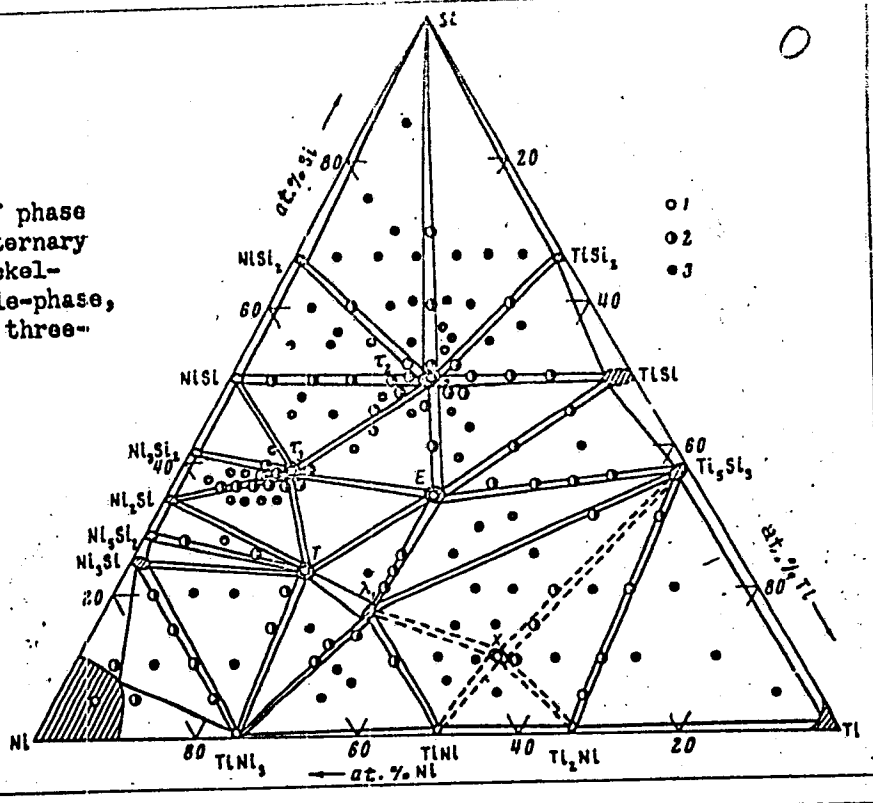
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UDC: 546.821+546.74+546.28

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Fig. 1. Diagram of phase equilibria in the ternary system titanium-nickel-silicon: 1 - single-phase, 2 - two-phase, 3 - three-phase alloys



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AUTHORS: Okara, V.G.; Fedoruk, V.M.; Shataylo, D.V.

TITLE: Experience in using an Eu-152/154 radioactive isotope for controlling the quality of the welds

PERIODICAL: Avtomaticheskaya svarka, no. 9, 1961, 85-88

TEXT: Information is presented on weld inspection techniques employed at the Zavod metallokonstruktsiy im. Babushkina (Metal Structures Plant im. Babushkin) in Dnepropetrovsk. The plant is producing steelwork structures as well as machinery structures, steel ladles, and blast furnace casings. Formerly used Co⁶⁰ in РУП-1 (RUP-1) X-ray apparatus has been replaced by Eu-152/154 which produces better pictures and has soft radiation. A new work container for Eu-152/154 has been developed lately, designed for work with europium of 1 g-equiv activity of radium. The apparatus consists of a spherical lead container, a support, and a folding tripod. The protection container of the apparatus permits work with radioactive europium of up to 1 g-equiv as well as with cobalt of 0.5 g-equiv. The container is shown in

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