"APPROVED FOR RELEASE: 07/12/2001 CIA-RDP86-00513R000929610003-1

LEVIN, Ye.A.; LOVLYA, S.A.; MORDASOV, V.V.

Basis for selecting the magnitude for torpedo charges in oil well shooting with a view to breaking pipes. Burenie no.3:34-37 '65. (MIRA 18:5)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut geofizicheskikh metodov razvedki.

APPROVED FOR RELEASE: 07/12/2001 CIA-RDP86-00513R000929610003-1"

"APPROVED FOR RELEASE: 07/12/2001 CIA-RDP86-00513R000929610003-1

LEVIN, Ye.B., inzhener.

Grinding slot form cutting tools. Mashinostroitel' no.2:20-21 F '57. (MLRA 10:5)

(Cutting tools)

APPROVED FOR RELEASE: 07/12/2001 CIA-RDP86-00513R000929610003-1"

"APPROVED FOR RELEASE: 07/12/2001 CIA-RDP86-00513R000929610003-1

LEVIN, Ya.B., inzh.

Making pinion-type cutters with a complicated shape. Mash.Bel. no.4:118-121 '57. (MIRA 11:9)
(Metal-cutting tools)

APPROVED FOR RELEASE: 07/12/2001 CIA-RDP86-00513R000929610003-1"

"APPROVED FOR RELEASE: 07/12/2001 CIA-RDP86-00513R000929610003-1

LEVIN, Ye. B.

Journal of the Iron and Steel Institute
July 1954
New Publications.

(3)

ELJUTIN, W. P., J. A. PAWLOW and E. B. LEWIN. "Ferrolegierungen (Die Elektrometallurgie). 8vo, pp. 440. Illustrated. Berlin, 1953: V.E.B. Verlag Technik. (Price DM. 25.–)

APPROVED FOR RELEASE: 07/12/2001 CIA-RDP86-00513R000929610003-1"

"APPROVED FOR RELEASE: 07/12/2001 CIA-RDP86-00513R000929610003-1

LEVIN, Yelizar Borisovich; LANOVSKAYA, M.P., redaktor izdatel'stva; EVENSON, I.M., tekhnicheskiy redaktor

[Steel industry of capitalist countries] Chernaia metallurgiia kapitalisticheskikh stran. Moskva, Gos. nauchno-tekhn. izd-vo lit-ry po chernoi i tsvetnoi metallurgii. Pt.6. [Coal-tar chemical industry] Koksokhimicheskoe proizvodstvo. 1956. 351 p. (MLRA 9:9)

1. Moscow. TSentral'nyy institut informatsii chernoy metallurgii. (Coal-tar industry)

APPROVED FOR RELEASE: 07/12/2001 CIA-RDP86-00513R000929610003-1"

"APPROVED FOR RELEASE: 07/12/2001 CIA-RDP86-00513R000929610003-1

LEVIN, Ye.B.

Second International Congress on Coal Preparation. Koks i khim. no.3:16-23 '56. (MLRA 9:8)

1. TSentral'nyy institut informatsii Ministerstva chernoy metallurgii SSSR.

(Coal preparation)

APPROVED FOR RELEASE: 07/12/2001 CIA-RDP86-00513R000929610003-1"

"APPROVED FOR RELEASE: 07/12/2001 CIA-RDP86-00513R000929610003-1

LEVIN, Ye.B.

Enrichment of coals. Koks i khim. no.6:16-20 '56. (MLRA 9:10)

1.TSentral'nyy institut informatsii Ministerstva chernoy metallurgii SSSR. (Coal preparation)

APPROVED FOR RELEASE: 07/12/2001 CIA-RDP86-00513R000929610003-1"

"APPROVED FOR RELEASE: 07/12/2001 CIA-RDP86-00513R000929610003-1

LEVIN, Ye.B.

Production and consumption of coke-oven products in the United States. Koks i khim.no.7:54-55 '56. (MLRA 9:12)

1. TSentral'nyy institut informatsii Ministerstva chernoy metallurgii SSSR.
(United States--Coke industry--By-products)

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"APPROVED FOR RELEASE: 07/12/2001 CIA-RDP86-00513R000929610003-1

AUTHOR: Levin, Ye.B. 68-1-20/21

TITLE: De-phenolizing Effluents from Coke Oven Works in Centrifuges. (Obesfenolivanie stochnykh vod koksokhimicheskikh zavodov v tsentrifugakh)

PERIODICAL: Koks i Khimiya, 1957, No.1, pp. 62 - 64 (USSR)

ABSTRACT: This is a review of papers on the subject based on: W.J. Podbielniak and H.R. Kaiser, Blast Furnace and Steel Plant, 1956, No.7, pp. 760 - 764 and H.R. Kaiser, Sewage and Industrial Wastes, 1955, No.3, pp. 311 - 320.

ASSOCIATION: Central Institute of Information MChM USSR. (Tsentralnyy Institut Informatsii MChM SSSR)

AVAILABLE: Library of Congress

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"APPROVED FOR RELEASE: 07/12/2001 CIA-RDP86-00513R000929610003-1

LEVIN, Ye.B.

Rectifying column of a new design (from "Chemical Engineering," 63 no.10 1956). Koks i khim. no.3:58 '57. (MIRA 10:5)

1. Tsentral'nyy institut informatsii Ministerstva chernoy metallurgii SSSR.

(Distillation apparatus)

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"APPROVED FOR RELEASE: 07/12/2001 CIA-RDP86-00513R000929610003-1

LEVIN, YE. B.

68-6-17/19

AUTHOR: Levin, Ye..B.

TITLE: Methods of Determining Parameters Used in the International Classification of Coals. (Metody Opredeleniya parametrov prinyatykh v mezhdunarodnoy klassifikatsii kamennykh ugley)

PERIODICAL: Koks i Khimiya, 1957, No.6, pp. 58 - 62 (USSR)

ABSTRACT: Methods of determining British Standard Swelling Number, Roga Index, Caking Index with Audiber Arnau dilatometer and Gray King coking index are described.
There are 9 figures.

ASSOCIATION: TsIIN MChM SSSR

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"APPROVED FOR RELEASE: 07/12/2001 CIA-RDP86-00513R000929610003-1

LEVIN, YE. B.

AUTHOR: Levin, Ye. 68-7-16/16

TITLE: The Production and Marketing of Coke Oven By-Products in Western Germany in 1956. (Proizvodstvo i sbyt koksokhimicheskikh produktov v Zapadnoy Germanii v 1956 g.)

PERIODICAL: Koks i Khimiya, 1957, Nr 7, pp.63-64 (USSR)

ABSTRACT: Abstracted from Brennstoff Chemie, 1957, Nr 3/4; 7/8 and Glückauf, 1957, Nr 5/6. There is 1 Table.

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APPROVED FOR RELEASE: 07/12/2001 CIA-RDP86-00513R000929610003-1"

"APPROVED FOR RELEASE: 07/12/2001 CIA-RDP86-00513R000929610003-1

LEVIN, Ye.B.

Effect of coal density on the yield and quality of coking products. Koks i khim. no.8:58 '57. (MLRA 10:8)

1.TSentral'nyy institut informatsii chernoy metallurgii.
(Coke) (Coal--Carbonization)

APPROVED FOR RELEASE: 07/12/2001 CIA-RDP86-00513R000929610003-1"

"APPROVED FOR RELEASE: 07/12/2001 CIA-RDP86-00513R000929610003-1

Levin, Ye. B.

LEVIN, Ye.B., referent

Production and consumption of coke products in the U.S.A. in 1955 (from "Iron and Steel Engineer," no.11 1956). Koks i khim. no.10:60 '57. (MIRA 10:11)

(United States--Coke industry--Statistics)

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"APPROVED FOR RELEASE: 07/12/2001 CIA-RDP86-00513R000929610003-1

LEVIN, Ye.B., referent.

Using pipe lines for coal transportation. Biul. TSNIICHM no.16:60 '57. (MIRA 11:5)

(United States—Coal—Transportation)

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"APPROVED FOR RELEASE: 07/12/2001 CIA-RDP86-00513R000929610003-1

LEVIN, Ye.B., referent.

Using radioisotopes in testing gas pipe lines. Biul. TSNIICHM no.16: 60 '57. (MIRA 11:5)

(Radioisotopes--Industrial applications)
(United States--Gas, Natural--Pipe lines)

APPROVED FOR RELEASE: 07/12/2001 CIA-RDP86-00513R000929610003-1"

"APPROVED FOR RELEASE: 07/12/2001 CIA-RDP86-00513R000929610003-1

LEVIN, Ye.B., referent

Evaluating blast-furnace coke by crushing at high temperatures. (MIRA 11:4)
Biul.TSNIICHM no.17:48-49 (325) '57.
(Coke--Testing)

APPROVED FOR RELEASE: 07/12/2001 CIA-RDP86-00513R000929610003-1"

"APPROVED FOR RELEASE: 07/12/2001 CIA-RDP86-00513R000929610003-1

LEVIN, Ye.B., referent.

Producer gas for heating coke ovens in the German Federal Republic (from foreign periodicals). Biul. TSNIICHM no.23:55-56 '57. (MIRA 11:2)

(Germany, West--Gas producers)

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"APPROVED FOR RELEASE: 07/12/2001 CIA-RDP86-00513R000929610003-1

LEVIN, Ya.B., referent.

Use of various gases for heating coke ovens in the United States (from "Minerals Yearbook" 1953, "Iron and Steel Engineer" no. 12, 1955, no.11, 1956). Biul. TSNIICHM no.23:57 '57. (MIRA 11:2)
(United States--Coke ovens)

APPROVED FOR RELEASE: 07/12/2001 CIA-RDP86-00513R000929610003-1"

"APPROVED FOR RELEASE: 07/12/2001 CIA-RDP86-00513R000929610003-1

LEVIN, Ye.B., referent.

Benzol distillation apparatus in Wattenscheid (West Germany) (from "Erdöl and Kohle," no.7 1957). Reviewed by E.B. Levin. Koks i khim. no.1:63 '58. (MIRA 11:2)
(Germany, West--Distillation apparatus)
(Benzene)

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"APPROVED FOR RELEASE: 07/12/2001 CIA-RDP86-00513R000929610003-1

LEVIN, Ye.B., referent.

Coke problem in France (from "Brennstoff-Chemie," no.13/14 1957). Koks i khim. no.2:37 '58. (MIRA 11:3)

1. TSentral'nyy institut informatsii po chernoy metallurgii.
(France--Coke)

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"APPROVED FOR RELEASE: 07/12/2001 CIA-RDP86-00513R000929610003-1

LEVIN, Ye.B., referent.

Conveyer belts with neoprene coating. Biul. TSNIICHM no.2:61 '58.
(Conveying machinery) (Rubber coatings) (MIRA 11:5)

APPROVED FOR RELEASE: 07/12/2001 CIA-RDP86-00513R000929610003-1"

"APPROVED FOR RELEASE: 07/12/2001 CIA-RDP86-00513R000929610003-1

LEVIN, Ye.B., referent.

Recent work of the Research Center for the French Coal Industry. Koks i khim. no.2:61-62 '58. (MIRA 11:2)

1. Tsentral'nyy institut informatsii po chernoy metallurgii.
(France--Coal research)

APPROVED FOR RELEASE: 07/12/2001 CIA-RDP86-00513R000929610003-1"

"APPROVED FOR RELEASE: 07/12/2001 CIA-RDP86-00513R000929610003-1

IRVIN, Ye.B., referent.

New method of interlocking the operation of the pusher machine, coke guide machine and quenching car (from "Coke and Gas," No.223 1956). Koks i khim. no.3:58-59 '58. (MIRA 11:3)
(Coke industry--Equipment and supplies)

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"APPROVED FOR RELEASE: 07/12/2001 CIA-RDP86-00513R000929610003-1

LEVIN, Ye.B., referent.

Measures for improving the utilization of coke-oven gas and chemical products in the U.S.A. Koks i khim. no.3:60 '58. (MIRA 11:3)
(United States--Chemical industries)

APPROVED FOR RELEASE: 07/12/2001 CIA-RDP86-00513R000929610003-1"

"APPROVED FOR RELEASE: 07/12/2001 CIA-RDP86-00513R000929610003-1

LEVIN, Ye.B., referent.

Framework of production and consumption of coke-oven blast-furnace and other industrial gases in West Germany. Biul. TSNIICHM no.5: 60-62 '58. (MIRA 11:5)
(Germany, West—Gas manufacture and works)

APPROVED FOR RELEASE: 07/12/2001 CIA-RDP86-00513R000929610003-1"

"APPROVED FOR RELEASE: 07/12/2001 CIA-RDP86-00513R000929610003-1

LEVIN, Ye.B.

Processing of coal in West Germany. Biul. TSNIICHM no.5:62 '58.
(Germany, West—Coal preparation) (MIRA 11:5)

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"APPROVED FOR RELEASE: 07/12/2001 CIA-RDP86-00513R000929610003-1

LEVIN, Ye., referent

Extraction method for purifying raw benzene. Koks i khim. no. 7:61-62 '58. (MIRA 11:7)

(Benzene)

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"APPROVED FOR RELEASE: 07/12/2001 CIA-RDP86-00513R000929610003-1

LEVIN, Ye.B., ref.

Production of ammonium phosphate in by-product coking plants. Koks i khim. no.4:57-61 '60. (MIRA 13:6)
(United States--Coke industry--By-products)
(United States--Ammonium phosphates)

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"APPROVED FOR RELEASE: 07/12/2001 CIA-RDP86-00513R000929610003-1

LEVIN, Ya.B.

Production and uses of coke and coal chemical materials in the U.S.A. and West Germany. Zhur. VKHO 5 no.1:72-77 '60. (MIRA 14:4)

(United States—Coke industry—By-products)
(Germany, West—Coke industry—By-products)

APPROVED FOR RELEASE: 07/12/2001 CIA-RDP86-00513R000929610003-1"

"APPROVED FOR RELEASE: 07/12/2001 CIA-RDP86-00513R000929610003-1

LEVIN, Ye.B.

Labor productivity at some oven-coke plants of the German Federal Republic. Koks.i khim. no.12:61-64 '60. (MIRA 13:12)
(Germany, West--Coke industry--Labor productivity)

APPROVED FOR RELEASE: 07/12/2001 CIA-RDP86-00513R000929610003-1"

"APPROVED FOR RELEASE: 07/12/2001 CIA-RDP86-00513R000929610003-1

KHOKHLOV, A.S.; SILAYEV, A.B.; STEPANOV, V.M.; YULIKOVA, Ye.P.; TROSHKO, Ye.V.; LEVIN, Ye.D.; MAMIOFE, S.M.; SINITSYNA, Z.T.; CHI CHAN-TSIN [Ch'ih Ch'ang-Ch'ing]; SOLOV'YEVA, N.K.; IL'INSKAYA, S.A.; ROSSOVSKAYA, V.S.; DMITRIYEVA, V.S.; SEMENOV, S.M.; VEYS, R.A.; BEREZINA, Ye.K.; RUBTSOVA, L.K.

A new type of polymyxin, polymyxin M. Antibiotiki 5 no.1:3-9 Ja-F '60. (MIRA 13:7)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut antibiotikov i laboratoriya khimii belka i antibiotikov khimicheskogo fakul'teta Moskovskogo ordena Lenina gosudarstvennogo universiteta imeni M.V. Lomonosova.

(POLYMIXIN)

APPROVED FOR RELEASE: 07/12/2001 CIA-RDP86-00513R000929610003-1"

"APPROVED FOR RELEASE: 07/12/2001 CIA-RDP86-00513R000929610003-1

SILAYEV, A.B.; STEPANOV, V.M.; YULIKOVA, Ye.P.; TROSHKO, Ye.V.; LEVIN, Ye.D.

Chemistry of polymyxin M. Part 1: Qualitative amino acid analysis and analysis for end groups. Zhur. ob. khim. 31 no.1:297-305 Ja '61. (MIRA 14:1)

1. Moskovskiy gosudarstvennyy universitet.
(Polymyxin)

APPROVED FOR RELEASE: 07/12/2001 CIA-RDP86-00513R000929610003-1"

"APPROVED FOR RELEASE: 07/12/2001 CIA-RDP86-00513R000929610003-1

STEPANOV, V.M.; LEVIN, Ye.D.; OREKHOVICH, V.N.

Paper electrophoretic study of pepsin. Dokl.AN SSSR 136 no.5:1238-1240 F '61. (MIRA 14:5)

1. Institut khimii prirodnykh soyedineniy AN SSSR. 2. Deystvitel'nyy chlen AMN SSSR (for Orekhovich).
(Pepsin) (Paper electrophoresis)

APPROVED FOR RELEASE: 07/12/2001 CIA-RDP86-00513R000929610003-1"

"APPROVED FOR RELEASE: 07/12/2001 CIA-RDP86-00513R000929610003-1

VAGANOVA, T.I.; LEVIN, Ye.D.; STEPANOV, V.M.

Study of C-terminal amino acid sequence in the molecule of hog repsin. Biokhimiia 29 no.6:1070-1075 N-D '64. (MIRA 18:12)

1. Institut khimii prirodnykh soyedineniy AN SSSR, Moskva. Submitted March 5, 1964.

APPROVED FOR RELEASE: 07/12/2001 CIA-RDP86-00513R000929610003-1"

"APPROVED FOR RELEASE: 07/12/2001 CIA-RDP86-00513R000929610003-1

LEVIN, Ye.D.; STEPANOV, V.M.

Use of acrylonitrile for blocking the sulphydryl groups of proteins. Zhur. ob. khim. 34 no.7:2468 Jl '64 (MIRA 17:8)

1. Institut khimii prirodnykh soyedineniy AN SSSR.

APPROVED FOR RELEASE: 07/12/2001 CIA-RDP86-00513R000929610003-1"

"APPROVED FOR RELEASE: 07/12/2001 CIA-RDP86-00513R000929610003-1

LEVIN, Ye.D.; YEGOROV, TS.A.; STEPANOV, V.M.

Reduction of disulfide bonds in inactivated hog pepsin. Izv. AN SSSR. Ser. khim. no.5:825-829 '65. (MIRA 18:5)

1. Institut khimii prirodnykh soyedineniy AN SSSR.

APPROVED FOR RELEASE: 07/12/2001 CIA-RDP86-00513R000929610003-1"

"APPROVED FOR RELEASE: 07/12/2001 CIA-RDP86-00513R000929610003-1

AUTHOR: Levin, E.M., Ignatov, K.V. and Matyushkin, M.A.

TITLE: The manufacture of built-up hobbing cutters (Izgotovleniye sbornykh chervyachnykh frez) 121-2-8/20

PERIODICAL: "Stanki i Instrument" (Machine Tools and Tools), 1957, No.2, pp. 28 - 29 (U.S.S.R.)

ABSTRACT: Some details of production based on the experience of the Minsk Tractor Plant (Minskiy Traktorniy Zavod) are reported. The hobbing cutter has longitudinal slots in which cutting racks are inserted locked in the slot by a wedge. The whole assembly is secured by ring nuts at each end. The body is made of chromium tool steel and heat treated to 30 Rockwell C hardness. The cutting racks are made of 18% tungsten high speed steel. The machining set-ups for cutting the slots and for sharpening the cutting racks in a stack are illustrated. The maching allowances are given. Two set-ups for milling the cutting racks are shown depending on the size. A machining set-up and details of wedge machining and the assembly fixture are illustrated.
There are 8 figures.

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"APPROVED FOR RELEASE: 07/12/2001 CIA-RDP86-00513R000929610003-1

IGNATOV, K.V., tekhn.; LEVIN, Ye.M., tekhn.; MATYUSHKIN, A.M.

Making sectional worm and thread-milling cutters. Mash.Bel. no.4:102-111 '57. (MIRA 11:9)
(Screw-cutting machines)

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"APPROVED FOR RELEASE: 07/12/2001 CIA-RDP86-00513R000929610003-1

LEVIN, Ye. M., insh.

Suitability of certain aerodynamic properties in existing types of mine fans for central ventilation to meet basic requirements of the coal industry. Sbor. DonUGI no.15:61-68 '56. (MIRA 10:11)

1. Laboratoriya shakhtnykh ventilyatorov.
(Mine ventilation) (Fans, Mechanical)

APPROVED FOR RELEASE: 07/12/2001 CIA-RDP86-00513R000929610003-1"

"APPROVED FOR RELEASE: 07/12/2001 CIA-RDP86-00513R000929610003-1

LEVIN, Ye.M., inzh.; STRUCHKOV, Ya.T.

Performance of the reversing gear on mine fans in operation. Ugol' Ukr. 3 no.2:19-22 F '59. (MIRA 12:3)

1. Dongiprouglemash (for Levin). 2. Trest Orgenergougol' (for Struchkov).
(Fans, Mechanical) (Mine ventilation)

APPROVED FOR RELEASE: 07/12/2001 CIA-RDP86-00513R000929610003-1"

"APPROVED FOR RELEASE: 07/12/2001 CIA-RDP86-00513R000929610003-1

LEVIN, Ye.M., insh.

Reversible axial-flow mine fan with flexible guide blades.
Ugol' Ukr. 4 no.5:37-39 My '60. (MIRA 13:8)
(Fans, Mechanical) (Mine ventilation)

APPROVED FOR RELEASE: 07/12/2001 CIA-RDP86-00513R000929610003-1"

"APPROVED FOR RELEASE: 07/12/2001 CIA-RDP86-00513R000929610003-1

LEVIN, Ye.M., inzh.

Efficiency of reversing axial flow mine fans by changing the direction of rotation. Nauch. trudy Mosk. inst. radioelek. i gor. elektromekh. no.44:125-135 '62.

(MIRA 17:9)

APPROVED FOR RELEASE: 07/12/2001 CIA-RDP86-00513R000929610003-1"

"APPROVED FOR RELEASE: 07/12/2001 CIA-RDP86-00513R000929610003-1

PAK, V.V., akademik; BABAK, G.A., kand. tekhn. nauk; [illegible], I.M., kand. tekhn. nauk; PAK, V.V., kand. tekhn. nauk

Size of the maximum permissible overall mine degradation. Ugol' 40 no.4122-23 Ap '65. (MIRA 18:5)

1. AN UkrSSR (for V.S. Pak).

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"APPROVED FOR RELEASE: 07/12/2001 CIA-RDP86-00513R000929610003-1

LEVIN, Ye.M., professor

Clinical aspects and treatment of pulmonary syphilis. Vest.ven. i derm. no.3:56 My-Je '56. (MLRA 9:9)

1. Iz kliniki kozhnykh i venericheskikh bolezney Vinnitskogo meditsinskogo instituta.
(LUNGS--SYPHILIS)

APPROVED FOR RELEASE: 07/12/2001 CIA-RDP86-00513R000929610003-1"

"APPROVED FOR RELEASE: 07/12/2001 CIA-RDP86-00513R000929610003-1

LEVIN, Ye.M. prof., TRAKHTENBERG, Sh.Ye., dots.

Suppurative skin diseases in sugar factory workers. Sov.med. 22 no.4:144-147 Ap '58 (MIRA 11:7)

1. Iz kafedry kozhno-venericheskikh bolezney (zav. - prof. Ye.M. Levin) Vinnitskogo meditsinskogo instituta.
(OCCUPATIONAL DISEASES,
pyoderma in sugar factory workers (Rus))
(PYODERMA, epidemiology,
in sugar factory workers (Rus))

APPROVED FOR RELEASE: 07/12/2001 CIA-RDP86-00513R000929610003-1"

"APPROVED FOR RELEASE: 07/12/2001 CIA-RDP86-00513R000929610003-1

LEVIN, Ye.M., prof.; BLINDMAN, Ye.I.

Complement content of blood serum in various forms of syphilis. Vrach. delo no.1:81-82 '59. (MIRA 12:4)

1. Kafedra kozhnykh i venericheskikh bolezney (zav. - prof. Ye.M. Levin) Vinnitskogo meditsinskogo instituta.
(SYPHILIS) (COMPLEMENTS (IMMUNITY))

APPROVED FOR RELEASE: 07/12/2001 CIA-RDP86-00513R000929610003-1"

"APPROVED FOR RELEASE: 07/12/2001 CIA-RDP86-00513R000929610003-1

LEVIN, Ye.M., prof.; BLINDMAN, Ye.I.

Result of treating psoriasis by a paravertebral-zonal novocaine block. Sov.med. 23 no.10:130-132 O '59. (MIRA 13:2)

1. Iz kafedry kozhno-venericheskikh bolezney (zaveduyushchiy - prof. Ye.M. Levin) Vinnitskogo meditsinskogo instituta.
(PSORIASIS ther.)
(ANESTHESIA, CONDUCTION)

APPROVED FOR RELEASE: 07/12/2001 CIA-RDP86-00513R000929610003-1"

"APPROVED FOR RELEASE: 07/12/2001 CIA-RDP86-00513R000929610003-1

LEVIN, Ye.M.

Extensive papular syphilid. Vest. derm. i ven. 34 no.7:67-68 '60. (MIRA 13:12)

(SKIN—SYPHILIS)

APPROVED FOR RELEASE: 07/12/2001 CIA-RDP86-00513R000929610003-1"

"APPROVED FOR RELEASE: 07/12/2001 CIA-RDP86-00513R000929610003-1

LEVIN, Ye.M., prof.

Clinical picture of bipolar hard chancers. Vest.derm.i ven. 34 no.12:66 '60. (MIRA 14:1)

1. Iz kafedry kozhno-venericheskikh bolezney (zav. - prof. Ye.M. Levin) Vinnitskogo gosudarstvennogo meditsinskogo instituta (dir. - dotsent S.I. Korkhov).
(SYPHILIS)

APPROVED FOR RELEASE: 07/12/2001 CIA-RDP86-00513R000929610003-1"

"APPROVED FOR RELEASE: 07/12/2001 CIA-RDP86-00513R000929610003-1

L 08386-67 EWT(1) AT SOURCE CODE: UR/0413/66/000/018/0046/0046

ACC NR: AP6033466

INVENTOR: Anokhin, L. A.; Voronin, G. I.; Gil'zin, K. A.; Levin, Ye. M.

ORG: none

TITLE: Microcooler. Class 17, No. 185940

SOURCE: Izobreteniya, promyshlennyye obraztsy, tovarnyye znaki, no. 18, 1966, 46

TOPIC TAGS: solenoid, cooling, microcooler

ABSTRACT: A low-temperature microcooler, operating on the reverse Sterling cycle, is described (Fig. 1). It is characterized by a common housing which contains a cylinder, with a coaxially situated compressor and expander pistons, a cooler, a generator, and a drive mechanism. For the purpose of reducing the size of the cooler and to provide dynamic equilibrium, the two annular solenoid coils, whose armature is rigidly connected to the pistons, and the damping gas chambers for the reverse action pistons, are contained in the housing. Another model of the same microcooler has its electric motors, having a common stator and rotors (the latter attached to the piston rods), situated in the microcooler

UDC: 621.574-242-837

Card 1/2

CIA-RDP86-00513R000929610003-

"APPROVED FOR RELEASE: 07/12/2001 CIA-RDP86-00513R000929610003-1

LEVIN, Ya.M.; FRANKFURT, L.L.

The quartet hypothesis and the relations between cross sections at high energies. Pis'. v red. Zhur. eksper. i teoret.fiz. 2 no.3:105-109 Ag '65. (MIRA 18:12)

1. Fiziko-tekhnicheskiy institut imeni Ioffe AN SSSR. Submitted June 2, 1965.

APPROVED FOR RELEASE: 07/12/2001 CIA-RDP86-00513R000929610003-1"

"APPROVED FOR RELEASE: 07/12/2001 CIA-RDP86-00513R000929610003-1

KORSAKOV, Vasiliy Dmitriyevich; LEVIN, Ye.M., red.

[Experience in the use of the EK-340 epoxy compound and quick-setting plastics in the manufacture of attachments] Opyt primeneniia epoksidnogo kompaunda EK-340 i bystrotverdeiushchikh plastmass pri izgotovlenii prisposoblenii. Leningrad, 1964. 17 p. (MIRA 17:11)

APPROVED FOR RELEASE: 07/12/2001 CIA-RDP86-00513R000929610003-1"

"APPROVED FOR RELEASE: 07/12/2001 CIA-RDP86-00513R000929610003-1

L 22761-66 EWT(m)/T

ACC NR: AP6008738 SOURCE CODE: UR/0386/66/003/003/0125/0129

AUTHOR: Levin, Ye. M.; Frankfurt, L. L.

ORG: Physicotechnical Institute im. A. F. Ioffe, Academy of Sciences SSSR (Fiziko-tekhnicheskiy institut Akademii nauk SSSR)

TITLE: Mass formulas in weakly broken SU(3) symmetry

SOURCE: Zhurnal eksperimental'noy i teoreticheskoy fiziki. Pis'ma v redaktsiyu. Prilozheniye, v. 3, no. 3, 1966, 125-129

TOPIC TAGS: strong nuclear interaction, elementary particle, nuclear spin, boson, baryon, mass spectrum, quantum number

ABSTRACT: The authors propose a new derivation of the relation between the masses of arbitrary-spin particles belonging to different SU(3) multiplets, starting from the following assumptions: I. The three-dimensional integrals of the time-dependent components of the vector current ($Q_\alpha^V(t) = \int d^3x\, I_0^\alpha(x,t)$) are generators of the SU(3) algebra and transform single-particle states into single-particle states that are nearest in energy. This approximation corresponds to the premise that definite multiplets of SU(3) exist in spite of the inequality of the corresponding particle masses. II. There exists a 4-vector $I_\mu^\alpha(x,t)$, which transforms in accordance with the octet representation of SU(3) and whose divergence satis-

Card 1/3

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L 22761-66
ACC NR: AP6008738

fies a commutation relation

$$[\frac{\partial}{\partial x_\mu} L_\mu^{K^+}(x,t),\ Q_{K^+}^V(t)] = 0 \qquad (1)$$

that follows within the framework of exact SU(3) from the fact that L_μ^α transforms in accordance with the octet representation of SU(3). An example of an operator L_μ^α satisfying assumption II in the approximate symmetry is the vector current in a model in which the breaking of SU(3) in the Hamiltonian transforms like T_3^3, or else the axial current in the quark model or in the hypothesis of partial conservation of the axial current, which has led to predictions that agree satisfactorily with experiment. It is shown that by using the technique developed by S. Futini et al. (CERN preprint 65/998/5 TH 578, 1965) together with assumption I, it is easy to prove the renormalizability of the vector constant (the Ademollo-Gatto theorem) for particles with arbitrary spin belonging to any SU(3) representation. The commutator (1), using the vector current for the operator L_μ^α, also leads to the Gell-Mann--Okubo mass formula but for particles with arbitrary spin. Further, taking the commutator (1) between different states, the authors demonstrate the following: 1. The Gell-Mann--Okubo formula within the multiplet for arbitrary choice of the operator L_μ^α satisfying condition II. 2. The universality of the mass (mass-

Card 2/3

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"APPROVED FOR RELEASE: 07/12/2001 CIA-RDP86-00513R000929610003-1

L 22761-66
ACC NR: AP6008738

squared) difference of particles with quantum numbers K and π for octets of mesons with arbitrary spins. The results agree well with the relation derived by S. Coleman and S. L. Glashow (Phys. Rev. 134B, 671, 1964) for the 0^- and 1^- octets from other considerations. The foregoing implies universality of the parameters of the Okubo formula for the mass differences of bosons, in agreement with the existence of a heavier third quark. For the baryons, relations are given between the masses of the octet and decuplet with arbitrary spins and between the baryon octets. It is concluded that some observed regularities in the mass spectrum can be explained on the basis of a scheme of weakly broken symmetry, without resorting to fundamental hypothese (existence of quarks, higher symmetries). The authors thank V. M. Shekhter for stimulating discussions and useful advice, and Ya. I. Azimov, A. A. Ansel'm, V. N. Gribov, and I. T. Dyatlov for a discussion of the results. Orig. art. has: 4 formulas.

SUB CODE: 20/ SUBM DATE: 17Dec65/ ORIG REF: 001/ OTH REF: 008

Card 3/3

APPROVED FOR RELEASE: 07/12/2001 CIA-RDP86-00513R000929610003-1"

"APPROVED FOR RELEASE: 07/12/2001 CIA-RDP86-00513R000929610003-1

LEVIN, Ye.P., inzh.

Using universal pneumatic equipment. Stroi. i dor. mashinostr. 3 no. 8:29-30 Ag '58. (MIRA 11:8)
(Pneumatic machinery)

APPROVED FOR RELEASE: 07/12/2001 CIA-RDP86-00513R000929610003-1"

"APPROVED FOR RELEASE: 07/12/2001 CIA-RDP86-00513R000929610003-1

LEVIN, Ye. R.

"Rheumatism in Children During the War Years and in the Postwar Period and Its Relation to Scarlet Fever," Pediatrics, No. 4, 1948.

Chair of Pediatrics, Cen. Inst. for Improvement of Doctors, and Children's Hosp. im. Dzerzhinskiy, -c1948-.

APPROVED FOR RELEASE: 07/12/2001 CIA-RDP86-00513R000929610003-1"

"APPROVED FOR RELEASE: 07/12/2001 CIA-RDP86-00513R000929610003-1

LEVIN, Ye. R.

"Clinical and Bacteriological Characteristics of Pneumonia in Children,"

Pediatrics, No. 5, 1949. p 35-40

Chair of Pediatrics, Cen. Inst. Advancement of Doctors and the Research Lab. of Influenza, Inst. of Virusology, Acad. Med. Sci., USSR, -c1949-.

APPROVED FOR RELEASE: 07/12/2001 CIA-RDP86-00513R000929610003-1"

"APPROVED FOR RELEASE: 07/12/2001 CIA-RDP86-00513R000929610003-1

LEVIN E. R. and GANZBURG S. E.

3491. LEVIN E. R. and GANZBURG S. E. * Haemogram and sedimentation rate in mumps meningitis (Russian text) PEDIATRIJA 1953, 1 (68)

116 children with meningitis and meningoencephalitis due to mumps were examined. The aetiology was confirmed epidemiologically and serologically. Leucopenia (in 74 children the count was less than 8,000) is characteristic; at the same time the sedimentation rate was normal. In the majority a neutrophilia with lymphopenia and eosinopenia was present. Najman - Rijeka (XX, 7, 8)

SO: Excerpta Medica, Section VIII, Vol 7, No 9

APPROVED FOR RELEASE: 07/12/2001 CIA-RDP86-00513R000929610003-1"

"APPROVED FOR RELEASE: 07/12/2001 CIA-RDP86-00513R000929610003-1

MIRKIS, S.M.; LEVIN, Ye.R.

Early diagnosis of heart diseases in chronic atypical pneumonias in children. Pediatriia no.2:26-30 Mr-Ap '54. (MLRA 7:6)

1. Iz kafedry pediatrii (zav. deystvitel'nyy chlen AMN SSSR prof. G.N.Speranskiy) TSentral'nogo instituta usovershenstvovaniya vrachey.

(PNEUMONIA, PRIMARY ATYPICAL, complications, *heart dis. in child., early diag.)
(PULMONARY HEART DISEASE, etiology and pathogenesis, *pneumonia, primary atypical, in child., early diag.)

APPROVED FOR RELEASE: 07/12/2001 CIA-RDP86-00513R000929610003-1"

"APPROVED FOR RELEASE: 07/12/2001 CIA-RDP86-00513R000929610003-1

LEVIN, Ye.R.; AL'TGAUZEN, V.P.

Clinical and immunological aspects of Escherichia coli infections in young children. Vop.okh.mat. i det. 4 no.2:21-26 Mr-Ap '59. (MIRA 12:5)

1. Iz Gorodskoy klinicheskoy bol'nitsy No.9 i Moskovskogo nauchno-issledovatel'skogo instituta vaktsin i syvorotok im. I.I.Mechnikova.
(INTESTINES--BACTERIOLOGY) (CHILDREN--DISEASES)

APPROVED FOR RELEASE: 07/12/2001 CIA-RDP86-00513R000929610003-1"

"APPROVED FOR RELEASE: 07/12/2001 CIA-RDP86-00513R000929610003-1

BILEYKINA, A.M.; LEVIN, Ye.B.

Diagnostic importance of TSuverkalov's skin allergy test in dysentery in children. Vop. okh. mat. i det. 7 no.3:17-20 Mr '62. (MIRA 15:5)

1. Iz detskoy klinicheskoy bol'nitsy No.9 imeni F.E.Dzerzhinskogo (glavnyy vrach A.N.Kudryashova).
(DYSENTERY) (ALLERGY)

APPROVED FOR RELEASE: 07/12/2001 CIA-RDP86-00513R000929610003-1"

"APPROVED FOR RELEASE: 07/12/2001 CIA-RDP86-00513R000929610003-1

LAVIN, Ye.S.

Introducing the subassembly method in machining combine parts at the Taganrog Combine Plant. Sel'khozmashina no.2:25-28 F '57. (MLRA 10:4)

1. Rostovskiy filial NIITraktorosel'khozmash
(Taganrog--Agricultural machinery industry)
(Combines (Agricultural machinery))

APPROVED FOR RELEASE: 07/12/2001 CIA-RDP86-00513R000929610003-1"

"APPROVED FOR RELEASE: 07/12/2001 CIA-RDP86-00513R000929610003-1

S/032/62/028/012/023/023
B104/B186

AUTHORS: Levin, Ye. S., Kurochkin, K. T., and Umrikhin, P. V.

TITLE: A device for hydrogen sampling of liquid metal samples by vacuum treatment

PERIODICAL: Zavodskaya laboratoriya, v.28, no. 12, 1962, 1530-1531

TEXT: With the device shown in the figure, liquid metal is sampled in the following way: the tap (3) is opened and the rod (1) is pushed down until the mouthpiece of the ampoule (15) is immersed in the metal. After the ampoule is filled the rod is pulled out. The ampoule is not completely inside the body (2). The tap (3) is then closed, and the body (2) together with the rod is shifted into its topmost position and fixed by the collar (8). The rod is then lowered, the ampoule with the metal sleeve is taken out and immersed in cold water. After the ampoule has been replaced the device is restored to its initial position. There is 1 figure.

ASSOCIATION: Ural'skiy politekhnicheskiy institut (Ural Polytechnic Institute)

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APPROVED FOR RELEASE: 07/12/2001 CIA-RDP86-00513R000929610003-1"

"APPROVED FOR RELEASE: 07/12/2001 CIA-RDP86-00513R000929610003-1

L 16820-63 EWP(q)/EWT(m)/BDS AFFTC/ASD JD
ACCESSION NR: AP3004209 S/0193/63/000/006/0010/0011

58

AUTHOR: Levin, Ye. S.; Kurochkin, K. T.; Umrikhin, P. V.

TITLE: Device for sampling molten metal during the vacuum process without disturbing the vacuum system

SOURCE: Byulleten' tekhniko-ekonomicheskoy informatsii, no. 6, 1963, 10-11

TOPIC TAGS: vacuum process, metallurgy, sampling, inspection, analysis, molten metal

ABSTRACT: The Ural Polytechnical Institute has developed a sampler for determining the oxygen, hydrogen, nitrogen, and nonmetallic inclusion contents in metal being processed in a vacuum induction furnace. The device is a steel body with a movable rod passing through a brass vacuum cock into the furnace. The cock is attached to a flange which is welded to the top of the furnace. A quartz test tube is fastened by a metal bushing to the lower end of the rod. The quartz tube has a side opening for spontaneous filling with metal. An aluminum wire is placed into the tube to thicken the sample (approximately 0.5-1.0% aluminum is introduced). To take a sample, the rod

Card 1/2

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L 16820-63

ACCESSION NR: AP3004209

is lowered into the metal to fill the tube. Then the tube is raised, removed together with the bushing, and another tube and bushing are attached in their place for the next sampling. The interval between samplings is no more than 30 secs. This sampler has proven reliable and easy to maintain when used on a vacuum induction furnace of the MGP-52V type. Sampling for quick analysis makes it possible to control the vacuum process during operation. Original art. has: 1 figure.

ASSOCIATION: None

SUBMITTED: 00 DATE ACQ: 02Aug63 ENCL: 00

SUB CODE: ML NO REF SOV: 000 OTHER: 000

Card 2/2

APPROVED FOR RELEASE: 07/12/2001 CIA-RDP86-00513R000929610003-1"

"APPROVED FOR RELEASE: 07/12/2001 CIA-RDP86-00513R000929610003-1

L 13347-63 EWP(q)/EWT(m)/BDS AFFTC/ASD JD

ACCESSION NR: AP3002899 S/0148/63/000/006/0058/0067

58
57

AUTHOR: Levin, Ye. S.; Kurochkin, K. T.; Umrikhin, P. V.

TITLE: The kinetics of hydrogen removal during vacuuming of molten steel

SOURCE: IVUZ. Chernaya metallurgiya, no. 6, 1963, 58-67

TOPIC TAGS: steel degasification, induction vacuum furnace, VG 50/2500 motor generator, C,Mn,Si,P,S, residual pressure

ABSTRACT: Authors studied the mechanism of steel degasification during its vacuuming. A type MGP - 52V semi-industrial induction vacuum furnace with a VG 50/2500 motor generator was used for the tests. The metal was commercial iron composed of C, Mn, Si, P and S. The metal was melted down and then saturated with hydrogen, after which the slag was cleaned off from the surface and samples were taken for determining the hydrogen content. Test temperatures and holding time were varied. Authors conclude that degasification of a metal during vacuuming occurs under kinetic conditions initially, then in proportion to the decrease of the hydrogen concentration in the mixed and diffusion conditions. Hydrogen content in the metal after degasification was proportional to the square root of the residual pressure in the chamber for all conditions. A change in the hydrogen concentration and

Card 1/2

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"APPROVED FOR RELEASE: 07/12/2001 CIA-RDP86-00513R000929610003-1

L 13347-63

ACCESSION NR: AP3002899

degasification rate with a given period of time as is inversely proportional to the square root of the residual pressure in the chamber. In the kinetic region of the degassing process, a reduction in the amount of residual pressure in the chamber is accompanied by a large rise in the degassing rate. It is not too large in the mixed region and very small in the diffusion region. In the case of a prolonged vacuuming, the hydrogen content in steel is practically identical for all amounts of residual chamber pressure. Orig. art. has: 6 figures and 13 formulas.

ASSOCIATION: Ural'skiy politekhnicheskiy institut (Ural Polytechnic Institute)

SUBMITTED: 21Feb62 DATE ACQ: 24Jul63 ENCL: 00

SUB CODE: 00 NO REF SOV: 006 OTHER: 004

Card 2/2

APPROVED FOR RELEASE: 07/12/2001 CIA-RDP86-00513R000929610003-1"

"APPROVED FOR RELEASE: 07/12/2001 CIA-RDP86-00513R000929610003-1

ACCESSION NR: AP4008123 S/0279/63/000/006/0068/0073

AUTHOR: Levin, Ye. S. (Sverdlovsk)

TITLE: On possibility of formation and escape of hydrogen bubbles during vacuum degassing of steel

SOURCE: AN SSSR. Izvestiya. Metallurgiya i gornoye delo, no. 6, 1963, 68-73

TOPIC TAGS: The author has computed the critical dimensions of hydrogen bubbles developing in a vacuum-treated metal saturated with hydrogen at 1600C. He has also computed the pressure in a gas bubble in dependence on its radius and depth in the metal in a vacuum. Measurements were made on the effect of scavenging with argon on the kinetics of hydrogen removal. The author concludes that it is possible to remove gas from steel during vacuum treatment not only with CO bubbles but also by independent hydrogen bubbles. The spontaneous formation of hydrogen bubbles within the body of the liquid metal is practically impossible. The scavenging of liquid metal by an inert gas with simultaneous vacuum treatment makes possible a more complete and more rapid degassing of H from steel. With increased intensity of scavenging of the metal by an inert gas in a vacuum, the rate of degassing rises. Orig. art. has: 2 figures, 3 tables, and 15 formulas.

Card 1/2

APPROVED FOR RELEASE: 07/12/2001 CIA-RDP86-00513R000929610003-1"

"APPROVED FOR RELEASE: 07/12/2001 CIA-RDP86-00513R000929610003-1

ACCESSION NR: AP4008123

ASSOCIATION: none

SUBMITTED: 09Mar63 DATE ACQ: 09Jan64 ENCL: 00

SUB CODE: ML NO REF SOV: 022 OTHER: 002

Card 2/2

APPROVED FOR RELEASE: 07/12/2001 CIA-RDP86-00513R000929610003-1"

"APPROVED FOR RELEASE: 07/12/2001 CIA-RDP86-00513R000929610003-1

LEVIN, Ye.S.; KUROCHKIN, K.T.; UMRIKHIN, P.V.

Effect of certain factors on the kinetics of hydrogen removal from liquid steel during its vacuuming. Izv. vys. ucheb. zav.; chern. met. 6 no.10:43-51 '63. (MIRA 16:12)

1. Ural'skiy politekhnicheskiy institut.

APPROVED FOR RELEASE: 07/12/2001 CIA-RDP86-00513R000929610003-1"

"APPROVED FOR RELEASE: 07/12/2001 CIA-RDP86-00513R000929610003-1

LEVIN, Ye.S.; KJROCHKIN, K.T.; UMRIKHIN, P.V.

Kinetics of the gas removal process during the inert-gas blowing of metals and simultaneous vacuuming. Izv. vys. ucheb. zav.; chern. met. 6 no.12:38-44 '63. (MIRA 17:1)

1. Ural'skiy politekhnicheskiy institut.

APPROVED FOR RELEASE: 07/12/2001 CIA-RDP86-00513R000929610003-1"

"APPROVED FOR RELEASE: 07/12/2001 CIA-RDP86-00513R000929610003-1

LEVIN, Ye.S.; UMNIKHIN, P.V.

Reducing the temperature of liquid steel in the ladle during vacuum treatment. Stal' 25 no.2:125-126 F '65. (MIRA 18:3)

1. Ural'skiy politekhnicheskiy institut.

APPROVED FOR RELEASE: 07/12/2001 CIA-RDP86-00513R000929610003-1"

"APPROVED FOR RELEASE: 07/12/2001 CIA-RDP86-00513R000929610003-1

LIFSHITS, N.I., inzh.; LEVIN, Ye.T.

Storage rooms with gravity racks. Mekh. i avtom. proizv. 18 no.12:24-28 D '64. (MIRA 18:3)

APPROVED FOR RELEASE: 07/12/2001 CIA-RDP86-00513R000929610003-1"

"APPROVED FOR RELEASE: 07/12/2001 CIA-RDP86-00513R000929610003-1

LEVIN, Ye.V., referent

Screens for sizing wet coal (from "Revue de L'industrie minérale," no.5, 1957). Koks i khim. no.8:61-62 '58. (MIRA 11:9)
(Coal preparation) (Coke industry--Equipment and supplies)

APPROVED FOR RELEASE: 07/12/2001 CIA-RDP86-00513R000929610003-1"

"APPROVED FOR RELEASE: 07/12/2001 CIA-RDP86-00513R000929610003-1

LEVIN, Ye.Ye.; MEL'NIKOVA, I.S.

Ultrasonic dispersion of powder objects for electron microscope studies. Zav.lab. 29 no.8:1022 '63. (MIRA 16:9)

1. TSentral'nyy kotoloturbinnyy institut imeni Polzunova.
(Electron microscopy)

APPROVED FOR RELEASE: 07/12/2001 CIA-RDP86-00513R000929610003-1"

"APPROVED FOR RELEASE: 07/12/2001 CIA-RDP86-00513R000929610003-1

LEVIN, Yevgeniy Yefimovich; KHAZAN, A.N., kandidat tekhnicheskikh nauk; ~~VASIL'YEVA, V.P.~~, redaktor; SOKOLOVA, L.V., tekhnicheskiy redaktor.

[Microscopic analysis of metals; a practical manual] Mikroskopicheskoe issledovanie metallov; prakticheskoe rukovodstvo. Izd.2-oe, perer. i dop. Moskva, Ges.nauchno-tekhnicheskoe izd-vo mashinostroitel'noi lit-ry, 1955.259 p. (MLRA 9:4)

(Metallography)

APPROVED FOR RELEASE: 07/12/2001 CIA-RDP86-00513R000929610003-1"

"APPROVED FOR RELEASE: 07/12/2001 CIA-RDP86-00513R000929610003-1

129-2-5/10

AUTHOR: Levin, E.E., Candidate of Technical Sciences and Pivnik, E.M.

TITLE: The Effect of Sigma-Phase on the Long Duration Heat Resistance of Alloys. (Vliyanie sigma-fazy na dlitel'nuyu zharoprochnost' splavov).

PERIODICAL: Metallovedeniye i obrabotka metallov, 1957, No. 2, pp. 27-31, (U.S.S.R.)

ABSTRACT: The results of an investigation of the influence of sigma—phase on the long duration heat resistance of three iron base alloys, the chemical composition of which is given in Table 1, p. 27, are described. No sigma-phase separates out from alloy No. 1 of this Table during ageing, but a carbide-phase of the type $Me_{23}C_6$ and an intermetalide Fe_2Mo separates out. In the second alloy (of this Table) all the typical stages of sigma-phase formation (secondary ferrite and metastable formations) take place; in its initial state it contains about 8% ferrite in addition to austenite. Alloy No. 3 is widely used in the Soviet Union and other countries as a material for rotors, discs etc.; it also tends to form a sigma-phase. On the basis of the investigations

Card 1/4

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"APPROVED FOR RELEASE: 07/12/2001 CIA-RDP86-00513R000929610003-1

129-2-5/10

TITLE: The Effect of Sigma-Phase on the Long Duration Heat Resistance of Alloys. (Vliyanie sigma-fazy na dlitel'nuyu zharoprochnost' splavov).

it was established that, depending on the chemical composition of the metal, the tempering and the holding time, the sigma-phase particles forming in the alloys differ in quantity, dimensions and distribution in the solid solution and this affects, to varying degrees, the mechanical properties of the metal. The most sensitive characteristic is the impact strength at room temperature; the plasticity and impact strength are high at elevated temperatures. In long duration strength tests the formation of the sigma-phase leads to an increase in the deformation ability of the alloys and in the case of experiments of sufficiently long duration, the presence of relatively fine particles of the sigma-phase have almost no influence on the limit of long duration strength. Only in the case of large sigma-phase particle formation will the limit of long duration strength decrease, at the same time maintaining a high deformation ability. In the case of a sufficiently uniformly distributed and adequately dispersed sigma-phase in No. 3 alloy (of the Table), the mechanical properties of this

Card 2/4

APPROVED FOR RELEASE: 07/12/2001 CIA-RDP86-00513R000929610003-1"

"APPROVED FOR RELEASE: 07/12/2001 CIA-RDP86-00513R000929610003-1

129-2-5/10

TITLE: The Effect of Sigma-Phase on the Long Duration Heat Resistance of Alloys. (Vliyanie sigma-fazy na dlitel'nuyu zharoprochnost' splavov).

alloy during short duration tests and also the long duration strength are maintained at a sufficiently high level. Fig. 1 shows the micro-structures of the investigated alloys after hardening and various ageing regimes. Fig. 2 gives the logarithmic dependence "stress-time to failure" of alloys tested at 650°C after hardening. Fig. 3 gives the creep curves determined by long duration tensile strength tests of alloy No. 3 after various conditions of heat treatment. Fig. 4 gives the logarithmic dependence of "stress-time to failure" for No. 3 alloy, tested at 650°C after various heat treatment conditions. Fig. 5 shows the micro-structure of No. 3 alloy after long duration strength tests carried out after ageing for 20,000 hours at 650°C. Table 1 gives the chemical composition of the investigated alloys; Table 2 gives the mechanical properties and the structural characteristics of the alloys before and after ageing; Table 3 gives the results of long duration strength tests (183 to 3684 hours)

Card 3/4

APPROVED FOR RELEASE: 07/12/2001 CIA-RDP86-00513R000929610003-1"

"APPROVED FOR RELEASE: 07/12/2001 CIA-RDP86-00513R000929610003-1

129-7-14/16

AUTHOR: Levin, Ye. Ye.

TITLE: Microscopic investigation of metals. (Mikroskopicheskoye issledovaniye metallov), 2nd Edition, Mashgiz, 1955.

PERIODICAL: "Metallovedenie i Obrabotka Metallov" (Metallurgy and Metal Treatment), 1957, No.7, pp.60-61 (U.S.S.R.)

ABSTRACT: Generally favourable review criticising some points of detail.
Reviewed by Ye. I. Kvashnina, Candidate of Technical Sciences.

AVAILABLE:

Card 1/1

APPROVED FOR RELEASE: 07/12/2001 CIA-RDP86-00513R000929610003-1"

"APPROVED FOR RELEASE: 07/12/2001 CIA-RDP86-00513R000929610003-1

LEVIN, Ye.Ye., kand. tekhn. nauk.

"High temperature metallography" by M.G. Lozinskii. Reviewed by E.E. Levin. Metalloved. i obr. met. no.12:75-77 D '57. (MIRA 11:1)
(Metallography) (Metals at high temperatures)
(Lozinskii, M.G.)

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LIBERMAN, L.Ya., kand.tekhn.nauk; LEVIN, Ye.Ye., kand.tekhn.nauk

Industrial conference on heat-resistant materials. Energomashinostroenie 4 no.11:40-42 N '58. (MIRA 11:11)
(Refractory materials--Congresses)

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GOLOVIN, Georgiy Fedorovich; ZAMYATNIN, Mikhail Mikhaylovich; LEVIN, Ye.Ye., kand tekhn.nauk, retsenzent; MIKHAYLOV-MIKHEYEV, P.B., doktor tekhn.nauk, red.; VASIL'YEVA, V.P., red.izd-va; POL'SKAYA, R.G., tekhn.red.

[High-frequency heat treatment; metals and the technology of heat treatment] Vysokochastotnaia termicheskaia obrabotka; voprosy metallovedeniia i tekhnologii. Moskva, Gos.nauchno-tekhn.izd-vo mashinostroit.lit-ry, 1959. 185 p. (MIRA 12:5)
(Steel--Heat treatment) (Induction heating)

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PHASE I BOOK EXPLOITATION SOV/3559

Akademiya nauk SSSR. Institut metallurgii. Nauchnyy sovet po probleme zharoprochnykh splavov

Issledovaniya po zharoprochnym splavam, t. 5 (Investigations of Heat-Resistant Alloys, Vol 5) Moscow, Izd-vo AN SSSR, 1959. 423 p. Errata slip inserted. 2,000 copies printed.

Ed. of Publishing House: V.A. Klimov; Tech. Ed.: I.F. Kas'min; Editorial Board: I.P. Bardin, Academician, G.V. Kurdyumov, Academician, N.V. Agayev, Corresponding Member, USSR Academy of Sciences (Resp. Ed.), I.A. Oding, I.N. Pavlov, and I.F. Redin, 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.

COVERAGE: This book, consisting of a number of papers, deals with the properties of heat-resisting metals and alloys. Each of the papers is devoted to the study of the factors which affect the properties and behavior of metals. The effects of various elements such as Cr, Mo, and W on the heat-resisting properties of various alloys are studied. Deformability and workability of certain metals as related to the thermal conditions are the object of another study described. The problems of hydrogen embrittlement, diffusion and the deposition of ceramic coatings on metal surfaces by means of electrophoresis are examined. One paper describes the apparatus and methods used for growing monocrystals of metals. Boron-base metals are critically examined and evaluated. Results are given of studies of interatomic bonds and the behavior of atoms in metal. Tests of turbine and compressor blades are described. No personalities are mentioned. References accompany most of the articles.

Lenskaya, K.A., E.M. Kiruyeva, and E.S. Gorchakova. EI 736 Austenitic Steel 19

Khlestkin, B.V., Z.A. Khrenkova, G.Ye. Moskalenko, N.K. Kermich, and B.K. Lyubimskiy. EI696 and EI 696A Heat-Resistant Chromium-Nickel-Titanium Steel 25

Ginzburg, Ya.S. On the Mechanism of Stress Relaxation in Austenitic Steels 32

Shlyarov, N.N., A.A. Platonova, E.M. Faistskaya, and L.K. Shlainov. The Effect of Thermal Stresses on Short-Time, Long-Time, and Vibration Strength of Alloys 39

Yermakov, K.I. Acceleration of Aging Cycles of EI 481 Heat-Resistant Austenitic Steel 42

Rychkov, Ya.F., A.F. Klimov, and A.E. Borzunov. The Effect of Alloying on the Longitudinal Modulus of Elasticity of Zirconium 50

Pivnik, Ye.M. Experimental Study of the Mechanism of Deformation of Nickel-Base Alloys 58

Mazurik, G.A., and I.F. Redin. The Effect of Complex Alloying With Vanadium, Chromium, and Tungsten on the Kinetics of Hardness Changes in the Annealing of Cold-Worked Ferrite 68

Ryakov, N.I. On the Problem of Studying the Kinetics of Structural Changes and Properties in One Specimen Within a Wide Temperature Range 75

Minakov, V.P. On the "Angular" Relationship Between the Structure and Properties of Intercrystalline Boundaries. 78

Levin, B.B., E.M. Pivnik, V.S. Kaltygin, and E.E. Lyubimskiy. Structure and Properties of Nickel Alloys under the Long-Time Action of High Temperature 90

Cherepin, S.F., V.D. Kuirtsmarn, and M.I. Mil'. The Effect of Hydrogen on Creep Strength of Certain Steels 98

Lagutkov, I.S., and V.I. Syrnikovskiy. Creep Strength of Steam Superheating Pipes of Austenitic Steel in a State of Complex Stress 107

Lagutkov, I.S., and L.I. Fritsura. Effect of Temperature Variations on Creep Strength of 12 KhMF Steel 113

Fedorov, K.V., V.A. Yarmarova, and E.A. Khvorostukhina. Study of Hydrogen Embrittlement of Low-Carbon Steels 119

Yermakov, V.S. Artificial Aging of the EI437 Alloy under Cyclic Loads 126

Bochkov, E.I., and V.A. Pavlov. Study of Fine Structures of Aluminum-Magnesium and Copper-Nickel Solid Solutions 131

Konovalov, P.V. Regularities of the Thermokinetic Change in Austenite and the Problem of the Development of New Alloys 137

Lebedev, V.A., T.K. Marinets, and A.I. Yefremov. Study of the Endurance Limit of Metals by Means of Registering the Fatigue Curve 143

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SOV/129-59-6-10/15

AUTHORS: Levin, Ye. Ye., Candidate of Technical Sciences and
Pivnik, Ye. M., Candidate of Technical Sciences

TITLE: Sustained High Temperature Strength of Nickel-base Alloys (Dlitel'naya zharoprochnost' splavov na nikelevoy osnove)

PERIODICAL: Metallovedeniye i termicheskaya obrabotka metallov, 1959, Nr 6, pp 46-50 + 1 plate (USSR)

ABSTRACT: The aim of the work described in this paper was to determine for nickel-base alloys the relations between the changes in the dimensions of the α'-particles during ageing and the heat resistance, under equal temperature conditions. Three alloys were investigated with differing Nb and Al contents, two of which also contained boron. The compositions of the investigated alloys were as follows:

No. of alloy	C	Cr	Ti	Nb	Al	B
1	0.06	14.8	1.69	1.5	0.64	-
2	0.03	15.5	1.42	1.28	0.61	0.010
3	0.03	16.4	1.6	1.10	1.3	0.010

The metal from the three heats were quenched in water

Card1/4

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Sustained High Temperature Strength of Nickel-base Alloys SOV/129-59-6-10/15

after heating for five hours at 1100°C and then subjected to the following multi-stage tempering: for two hours at 1000°C, for one hour at 900°C, for two hours at 800°C, for twenty hours at 750°C and for forty-eight hours at 700°C. Such heat treatment ensures favourable plastic properties and a high impact strength for tens of thousands of hours at elevated temperatures. This can be seen particularly from tensile tests, since the plasticity of material with inadequate preliminary stabilization is very low. The alloys were tested at 20 and at 700°C directly after heat treatment and also after ageing at 700°C for 6000 hours. The results obtained after 6000 hours ageing are entered in Table 2. The structure of the alloy is shown in Fig 1, plate. Fig 2, plate, shows the block structure of the solid solution obtained by means of electron microscope after ageing at 700°C for 2000 hours. In Fig 4 the changes are graphed of the average dimensions of the particles of the separating out second phase during the process of ageing at 700°C;

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SOV/129-59-6-10/15

Sustained High Temperature Strength of Nickel-base Alloys

this graph is based on the data entered in Table 3. In Fig 5 the size distribution is graphed of the particles of the second phase forming during ageing at 700°C. In Fig 6 the dependence of the speed of growth of the particles of the second phase on the ageing time is compared with the strength values of the alloys at 700°C. The following conclusions are arrived at:

1. In nickel-base alloys, held at elevated temperatures, the coarsening of the particles of the second phase, which are rejected from the solid solution, proceeds with decreasing speed. At a given temperature the speed of this process is determined by the chemical composition of the alloy.
2. The presence of boron accelerates the process of coarsening of the particles of the second phase in alloys of the investigated type (Alloys Nos. 1 and 2). An increased Al content in the alloy No.3 brings about a lower average speed of growth of the particles.
3. At each stage of the ageing, particles of various dimensions are present but particles of a certain size are predominant.

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Sustained High Temperature Strength of Nickel-base Alloys SOV/129-59-6-10/15

4. A certain relation exists between the speed of growth of the particles and the changes with time of the sustained strength of the alloys. Thus, structural transformations have a considerable influence on the changes in the sustained strength with time. There are 6 figures, 3 tables and 3 Soviet references.

ASSOCIATION: TsKTI imeni Polzunov

Card 4/4

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"APPROVED FOR RELEASE: 07/12/2001 CIA-RDP86-00513R000929610003-1

18(7) SOV/32-25-1-28/51

AUTHORS: Levin, Ye. Ye., Pivnik, Ye. M.

TITLE: Method for the Development of Microstructure of Nickel Alloys With High Nickel Content (Metodika vyyavleniya mikrostruktury vysokonikelevykh splavov)

PERIODICAL: Zavodskaya Laboratoriya, 1959, Vol 25, Nr 1, pp 67 - 68 (USSR)

ABSTRACT: Reagents and picklings for metallographic ground sections were selected to be used in the investigations dealing with nickel alloys. Experiments were made with alloys of the nimonik type (titanium and niobium contents), alloy 1, as well as with samples consisting of high-resisting chrome-nickel alloys (with Mo, W, Al, and Ti) on nickel base, alloy 2, and with about 35% nickel - alloy 3. The samples were hardened before investigation and most of them stored for aging. The following reagent (A) was chosen for developing the structure of the solid solution: $CuSO_4$ - 2 g, HCl (1.19) - 10 ml, H_2SO_4 (1.84) - 1 ml, water - 10 ml (Fig 1). A development of the second phase, which separates on the decomposition of

Card 1/2

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"APPROVED FOR RELEASE: 07/12/2001 CIA-RDP86-00513R000929610003-1

Method for the Development of Microstructure of Nickel Alloys With High Nickel Content SOV/32-25-1-26/51

the solid solution, was attained by electrolytic pickling in the following solution (B): $CuSO_4$ - 20 g, H_2SO_4(1.84) - 5ml, citric acid - 10 g, water - 1 l (Fig 2). Pickling of aged alloys was carried out by three different solutions, the composition of which is also specified (Figs 3,4,5). In all experiments the standard rectifiers of the VSA-5 type served as a current source. The sample was the anode and a stainless steel lamina served as cathode. There are 5 figures and 1 Soviet reference.

ASSOCIATION: Tsentral'nyy nauchno-issledovatel'skiy kotloturbinnyy institut im. I. I. Polzunova (Central Scientific Research Institute for Boiler Turbines imeni I. I. Polzunov)

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PHASE I BOOK EXPLOITATION SOV/4502

Akademiya nauk SSSR. Institut metallurgii imeni A. A. Baykova. Issledovaniya po zharoprochnym splavam

Issledovaniya po zharoprochnym splavam, tom 6 (Investigations of Heat-Resistant Alloys, Vol. 6) Moscow, 1960. 319 p. Errata slip inserted. 3,000 copies printed.

Sponsoring Agency: Akademiya nauk SSSR. Institut metallurgii imeni A. A. Baykova. Otdelenie tekhnicheskikh nauk.

Editorial Board: I. P. Bardin (Deceased) Academician, S. V. Shukhardin, N. V. Agayev, Corresponding Member, Academy of Sciences USSR (Resp. Ed.), I. A. Oding, I. N. Kavlov, and I. P. Bardin, Candidate of Technical Sciences; Ed. of Publishing House: V. A. Klimov; Tech. Ed.: S. G. Tikhomirova.

PURPOSE: This book is intended for research workers in the field of physics of metals and for metallurgists, particularly those working on heat-resistant alloys.

COVERAGE: This collection of 45 articles deals with various problems in the production of heat-resistant alloys. Special attention is paid to the mechanisms of deformation of such metals as aluminum, copper, iron, and nickel. Various defects and failures of metals are analyzed, and means for increasing the heat resistance and plasticity are described. Among the special problems discussed are: electrolytic conductivity of iron-aluminum alloys in the solid state; the mobility of atoms in nickel-iron alloys, depending upon defects of their crystalline structure; the kinetics of change in isolated pores; the irreversible thermal transformation of solid bodies, etc. No personalities are mentioned. References follow each article.

Shishkin, N.S., N.A. Lipkina, and S.E. Khaykin. Resistance of the Metal of the Turbines Against Vanadium Corrosion When Sulfurous Marats Are Used as Fuel 140

Shtrykov, S.A., and A.A. Smirnov. Ordering of Alloys With Hexagonal Compact Crystalline Lattice 146

Sokolov, V.S., A.S. Orlov, and I.A. Shvarts. Autoradiographic Detection of Adsorption Heterogeneities of Concentration 158

Borovskiy, M.I., and Ya.Ya. Gokhin. Possibility of Determining the Stratification of Electrons According to the States $4_{1/2}$ and $4_{3/2}$ From the Ratio of the Intensities of L-Series Lines 163

Borovskiy, M.I., and Ya.Ya. Gokhin. X-ray Lines of Niobium in Nitride, Nitride, and Carbide of Niobium, and the Character of Bonds of These Compounds 169

Bel'skiy, M.Ya. Kinetics of Change in Isolated Pores 178

Kolontsov, P.I. Interaction of Boron With Chromium in Ternary Nickel-Base Alloys 180

Bunyatov, G.A., and I.F. Dolin. Some Regularity Patterns in the Formation of σ -Phase in Steel With 18% Cr and 14% Mn 187

Levin, Ye.Ye., and Ye.M. Pinsk. Maximum Structural Stabilization as a Means for Increasing the Durable Heat-Resistance and Plasticity of Alloys 195

Arzhayev, P.M., B.M. Yakovlev, and B.A. Prokhorov. Investigation of the Structure and the Phase State of a Diffusion Silicon Coating of Rhenium 201

Shaurov, A.I. Resonance Method for Determining the Internal Friction in Metals 207

Dmitrichenko, A.I., M.V. Bartenev, V.Ya. Meis, M.Ya. Brugatov, and Ya.V. Vincentsen. Effect of Pressure Treatment on the Endurance and Plasticity of Alloys 211

Shustin, L.S. The Nature of the "White Strip" in Welds of Heat-Resistant Ferritic Steels 215

Savitskiy, V.G., and E.V. Ryzov. Simultaneous Occurrence of Cold Shortness and "Animal Shortness" [Condition opposite to cold shortness] 227

Pugachev, V.A., E.V. Ryzov, and K.P. Zhdanova. Effect of the Chromium Content on the Rate of Diffusion and Solubility of Hydrogen in Iron-Chromium Alloys 231

Sverchkov, V.N., G.P. Kobzenko, and Ya.A. Kucharchukin. Investigation of Transformations in Chromium During Heating and Cooling by the Method of Differential Thermal Analysis 238

Sverchkov, V.N., and V.N. Pan. Investigation of the Ternary System Chromium-Nickel-Niobium 240

Ostertina, S.D., V.Ya. Dibrov, L.N. Rusak, and E.G. Nikitina. Investigation of Defects of Crystalline Structure in Chromium 251

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LEVIN, Ye.Ye., kand.tekhn.nauk

High temperature intergranular deterioration of metals (from foreign publications). Metalloved. i term. obr. met. no. 5:59-63 My '60. (MIRA 13:12)
(Metals at high temperature) (Metallography)

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86066

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E111/E135

AUTHORS: Levin, Ye.Ye., and Pivnik, Ye.M. (Leningrad)

TITLE: Stabilisation as a Method of Raising the High-Temperature Plasticity of Highly Alloyed Alloys

PERIODICAL: Izvestiya Akademii nauk SSSR, Otdeleniye tekhnicheskikh nauk, Metallurgiya i toplivo, 1960, No. 5, pp 86-95

TEXT: The authors describe their investigation of three heats of an iron-nickel-chromium base alloy with some (unspecified) comparatively low contents of tungsten, titanium and aluminium. This is a possible substitute for types ЭИ-607 (EI-607), EI-869 and EI-765 nickel base alloys. In addition to the usual short-time and long-time mechanical tests, a constant-speed procedure was also used. Specimens were hardened from 1100, 1150, 1180 and 1210 °C with air cooling and then subjected to stepwise heat treatment: 4 hours at 1000 °C followed by slow cooling to 900, 850 and 750 °C with holding time of 8, 15 and 20 hours, respectively, and final cooling in air. Tests were carried out at 20 and 750 °C. Results are shown in Table 1 (in brackets for 750 °C). Different variants of stepwise heat treatment (Table 3) were tried, Table 4 showing the corresponding properties.

Card 1/3

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Stabilisation as a Method of Raising the High-Temperature Plasticity of Highly Alloyed Alloys

The results of tests with a constant speed of deformation of 0.8%/hour are shown in Table 5 and Fig. 1. Mechanical tests during long-time ageing at 750 °C confirm the effectiveness of stepwise heat treatment (Table 6). A further series of mechanical tests were carried out at temperatures up to 800 °C (Table 7). Phase and X-ray structural analysis showed that the main hardening phase is $Ni_3(AlTi)$, the γ'-phase. Figs 2 and 3 show respectively the microstructures and electron photographs for specimens of the two heats after various heat treatments. Granular and needle-like particles are formed during ageing. Table 8 gives the particle diameter and quantity of the γ'-phase. The two heats were found to have different properties after identical heat treatments (Tables 9 and 10). Needle-like particles reduce both long- and short-time strength. Their formation is promoted by increasing the hardening temperature. The development of the γ'-phase during ageing at 900 °C of type EI-787 material hardened from 1200 °C is shown in Fig. 4.

Card 2/3

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Stabilisation as a Method of Raising the High-Temperature Plasticity of Highly Alloyed Alloys

Table 11 shows the content and chemical composition of precipitate electrolytically separated from the test alloy after various heat treatments. N.Ye. Shlepyanova participated in the physico-chemical study of the precipitates. Formation of the needle-like structure reduces the content of the main hardening phase in the alloy. The appearance of isolated precipitates is shown in the electron-microscope photographs in Fig. 5.

There are 5 figures, 11 tables and 4 Soviet references.

SUBMITTED: July 6, 1960

Card 3/3

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87884
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E193/E255

18.1250 1416.1496.1454

AUTHORS: Levin, Ye. Ye., Pivnik, Ye. M., Candidates of Technical Sciences and Kultygin, V. S. and Lyubinskiy, B. E., Engineers

TITLE: Nickel-Base Alloys for Stationary Gas-Turbines

PERIODICAL: Energomashinostroyeniye, 1960, No. 8, pp. 30-35

TEXT: The object of the investigation, described in the present paper, was to determine the effect of various factors on the high-temperature properties of two nickel-base alloys, ЭИ607 (EI607) and ЭИ607А (EI607A), whose composition is given below.

Table 1

Alloy	C	Si	Mn	Cr	Ni	Nb
EI607	≤0.08	≤0.8	≤1.0	15-17	Base	1.0÷1.5
EI607A	≤0.08	≤0.8	≤1.0	16-17		1.0÷1.5

Card 1/4

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Nickel-Base Alloys for Stationary Gas-Turbines

Alloy	Ti	Al	Fe	Ti/Al	S	P
EI607	1.8÷2.3	≤0.5-1.0	≤3.0	2.7	≤0.02	≤0.02
EI607A	1.4÷1.8	≤0.5-1.0	≤3.0	2.1	≤0.02	≤0.02

The results of the experiments (tabulated or reproduced graphically) include data on the following subjects: (1) The effect of the titanium content on the deformation and time-to-rupture of both alloys, tested at 700°C under a stress of 25 kg/mm^2; the optimum titanium content was found to be approximately 1.8%; (2) the beneficial effect of addition of 1.56% Nb on the mechanical properties of the alloys, both at room temperature and at 700°C; (3) the beneficial effect of the so-called multi-stage heat treatment (quenching after 8 h at 1100°C, followed by 2 h at 1000°C + 1 h at 900°C + 2 h at 800°C + 20 h at 750°C.); (4) the time-to-rupture characteristics of the two alloys at 650 and 700°C, determined on both notched and unnotched specimens; (5) the effect

Card 2/4

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Nickel-Base Alloys for Stationary Gas-Turbines

Table 11

ТАБЛИЦА 11

Жаропрочность сплавов ЭИ607, ЭИ607А и ЭИ607А + Al

Сплав	Температура испытания °С	Предел длительной прочности, кГ/мм² за 1000 час.	5000	10 000	100 000	Предел ползучести, 1% за 100 000 час.
ЭИ607	650	45	32	28	—	—
	700	28	22	17	—	—
ЭИ607А	650	36	28	26	21	—
	700	23	22	20	15—17	13
ЭИ607А+Al	700	30	25	22	17	—
	750	21	16	13	10	8,5

Card 4/4

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"APPROVED FOR RELEASE: 07/12/2001 CIA-RDP86-00513R000929610003-1

S/032/60/026/06/19/044
B010/B016

AUTHORS: Levin, Ye. Ye., Mel'nikova, I. S.

TITLE: Method of Making Visible the Structure of Heat-resistant Alloys in Electron Microscopic Investigations

PERIODICAL: Zavodskaya laboratoriya, 1960, Vol. 26, No. 6, pp. 730-732

TEXT: To investigate the structure of some heat-resistant alloys on nickel-basis and iron-basis with high nickel content, as well as of stainless steels containing chromium 7 mordants and the corresponding etching conditions were developed (Table). These mordants were used at increased temperature to investigate the relationship between the average particle size and the time of ageing of the alloy. Different replicae (from titanium, lacquer, or carbon) were used for this purpose. It was observable among other things that an ageing of 20000 h at 700°C of an iron alloy with 35-40% Ni, 15% Cr, and W and Ti causes the formation of massive Ni_3T laminae at the grain boundaries (Fig. 4). It may be seen from the above-mentioned Table that etching time and

Card 1/2

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