"APPROVED FOR RELEASE: 08/10/2001 CIA-RDP86-00513R000617510012-8

GURSKIY, A.F., inzh.

Joints of precast reinforced concrete columns without centering reinforcements. Nov. tekh. i pered. op v stroi. 20 no.11:16-18 N '58. (MIRA 11:11)
(Columns, Concrete)

APPROVED FOR RELEASE: 08/10/2001 CIA-RDP86-00513R000617510012-8"

"APPROVED FOR RELEASE: 08/10/2001 CIA-RDP86-00513R000617510012-8

GURSKIY, A.F., inzh.

Spacial frame and ceilings of an industrial building made of precast monolithic reinforced concrete. Prom. stroi. 36 no.11: 18-21 N '58. (MIRA 12:1)
(Industrial buildings) (Precast concrete construction)

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"APPROVED FOR RELEASE: 08/10/2001 CIA-RDP86-00513R000617510012-8

GURSKIY, A.F., inzh.

Experimental verification of the strength and design efficiency of new joints of the frame of an industrial building. Prom. stroi. no.10:38-43 '62. (MIRA 15:12)
(Building—Details) (Industrial buildings)

APPROVED FOR RELEASE: 08/10/2001 CIA-RDP86-00513R000617510012-8"

"APPROVED FOR RELEASE: 08/10/2001 CIA-RDP86-00513R000617510012-8

GURSKIY, A.F., inzh.; LIBUBER, Yu.S., inzh.

Reinforced-concrete oscillating supports under pipelines.
Prom. stroi. 41 no.5:32-34 My '64. (MIRA 18:11)

APPROVED FOR RELEASE: 08/10/2001 CIA-RDP86-00513R000617510012-8"

"APPROVED FOR RELEASE: 08/10/2001 CIA-RDP86-00513R000617510012-8

GURSKIY, A.N., inzh.

Improved technique for assembling steam turbines. Energomashinostroenie 4 no.1:36-40 '58. (MIRA 11:1)
(Steam turbines)

APPROVED FOR RELEASE: 08/10/2001 CIA-RDP86-00513R000617510012-8"

"APPROVED FOR RELEASE: 08/10/2001 CIA-RDP86-00513R000617510012-8

PHASE I BOOK EXPLOITATION SOV/4017

Leningradskiy metallicheskiy zavod. Otdel tekhnicheskoy informatsii

Issledovaniya elementov parovykh i gazovykh turbin i osevykh kompressorov (Investigations of the Components of Steam and Gas Turbines and Axial-Flow Compressors) Moscow, Mashgiz, 1960. 488 p. (Series: Its: Sbornik, No. 6) Errata slip inserted. 3,200 copies printed.

Sponsoring Agency: RSFSR. Leningradskiy ekonomicheskiy administrativnyy rayon. Sovet narodnogo khozyaystva. Upravleniye tyazhelogo mashinostroyeniya.

Ed.: A.S. Zil'berman, Candidate of Technical Sciences; Eds. of Publishing House: V.P. Vasil'yeva and N.Z. Simonovskiy; Tech. Ed.: O.V. Speranskaya; Managing Ed. for Literature on the Design and Operation of Machines (Leningrad Division, Mashgiz): P.I. Petisov, Engineer; Editorial Board of Series: A.S. Zil'berman, Candidate of Technical Sciences; M.M. Koren', Engineer; V.K. Naumov, Candidate of Technical Sciences; and I.N. Shibalov, Engineer.

PURPOSE: This collection of articles is intended for engineering and technical personnel of turbine-construction plants and related organizations and may also be used by engineers and technicians at power plants employing steam and gas turbines.

COVERAGE: The collection contains 43 reports which present the methods and results of investigations of the working process and the statics and dynamics of the operation of turbine and axial-flow compressor components. Also described are test setups, devices, and apparatus. The first part of the collection deals with the aerodynamics of turbine and compressor components. The following members of the aerodynamic, compressor, and turbine laboratories took part in the work: D.M. Reshet'ko, V.I. Zemlyanskiy, Ye.A. Rusakova, the technicians T.Ya. Kiyanova, V.I. Karabach, N.D. Yegorova, and innovators N.K. Tutayev, and I.I. Gribanov. The second part of the collection consists of reports which illustrate that part of the work of the Laboratory (Central Laboratory of the Design Office for Steam and Gas Turbines of the Leningrad Metal Plant) concerned with the study of vibrations of turbines and their components, particularly the blades. The following members of the vibration laboratory participated in the work: Engineers I.D. Kovikova, G.L. Lyudin, and V.I. Melent'yeva, technicians and workers A.N. Krasheninnikov, V.I. Zimin, Yu.G. Kazinov, and Ye.P. Kudryavtsev. The third part is concerned with the calculation and experimental study of the state of stress and the deformations of turbine components. This work was performed by the Turbine-Component Laboratory. Personalities mentioned are the head of this laboratory M.M. Koren', Engineers Ye.S. Zugrova and I.V. Urinson, technicians and workers S.P. Senchenok, and Z.K. Shul'gina. The last part contains articles dealing with instruments, apparatus, and test setups. At the end of the collection methods for producing rotating parts of experimental turbines and compressors are presented. Personalities mentioned are the supervisors of the shop of the laboratory N.N. Prolova and G.P. Gavrilova, the leading innovators Ye.V. Markova, I.I. Gvozdeva, and V.P. Troynikova. References are to be found at the end of 24 of the 43 articles.

Investigations of the Components (Cont.) SOV/4017

Gurskiy, A.N., Engineer. Study of the Serviceability of the Journal of an Austenitic Steel Shaft in a Babbitt Bearing 389

PART IV. INSTRUMENTS, APPARATUS, AND INSTALLATIONS

Blokh, V.A., Engineer, V.S. Syrkin, Engineer, and A.N. Fridman, Engineer. Devices of the LMZ for the Operational Control and Protection of Steam and Gas Turbines 399

APPROVED FOR RELEASE: 08/10/2001 CIA-RDP86-00513R000617510012-8"

"APPROVED FOR RELEASE: 08/10/2001 CIA-RDP86-00513R000617510012-8

GURSKIY, A.N., inzh.

Investigating the performance of an austenite steel shaft journal in a babbitt bushing. [Trudy] LMZ no.6:389-396 '60. (MIRA 13:12)
(Shafting)

APPROVED FOR RELEASE: 08/10/2001 CIA-RDP86-00513R000617510012-8"

"APPROVED FOR RELEASE: 08/10/2001 CIA-RDP86-00513R000617510012-8

PHASE I BOOK EXPLOITATION SOV/5460

Leningradskiy metallicheskiy zavod. Otdel tekhnicheskoy informatsii.

Nekotoryye voprosy tekhnologii proizvodstva turbin (Certain Problems in the Manufacture of Turbines) Moscow, Mashgiz, 1960. 398 p. (Series: Its: Trudy, vyp. 7) Errata slip inserted. 2,100 copies printed.

Sponsoring Agency: RSFSR. Sovet narodnogo khozyaystva Leningradskogo ekonomicheskogo administrativnogo rayona, Upravleniye tyazhelogo mashinostroyeniya, and Leningradskiy dvazhdy ordena Lenina metallicheskiy zavod. Otdel tekhnicheskoy informatsii.

Ed. (Title page): G. A. Drobilko; Editorial Board: Resp. Ed.: G. A. Drobilko, B. A. Glebov, A. M. Mayzel', and M. Kh. Mernik; Tech. Ed.: A. I. Kontorovich; Managing Ed. for Literature on Machine-Building Technology: Ye. P. Naumov, Engineer, Leningrad Department, Mashgiz.

PURPOSE: This collection of articles is intended for technical personnel in turbine plants, institutes, planning organizations, as well as for production innovators.

Card ~~1/12~~

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"APPROVED FOR RELEASE: 08/10/2001 CIA-RDP86-00513R000617510012-8

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Certain Problems (Cont.) SOV/5460

COVERAGE: The experience of the LMZ (Leningradskiy metallicheskiy zavod - Leningrad Metalworking Plant) in the manufacture of modern large-capacity turbines is presented. Methods for the rationalization of basic manufacturing processes and for the mechanization and automation of manual operations are given. Descriptions of attachments and tools designed by LMZ for improving labor productivity and product quality are provided, and advanced inspection methods discussed. References accompany some articles. No personalities are mentioned. There are 26 references: 25 Soviet and 1 English.

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I. NEW PROCESSING METHODS IN MACHINING AND ASSEMBLY

Gamze, Z. M. [Engineer]. The Organization, Methods, and Trends in Efforts for Improving the Easy Manufacturability of Designs for Large Hydraulic Turbines 5

Card ~~2/12~~

APPROVED FOR RELEASE: 08/10/2001 CIA-RDP86-00513R000617510012-8"

"APPROVED FOR RELEASE: 08/10/2001 CIA-RDP86-00513R000617510012-8

Gurskiy, A. N. [Engineer], S. N. Kupershtok [Engineer], V. N. Yegorov [Engineer], and A. M. Filippov. The Improvement of Assembly Process of Steam Turbines 85

Dolgov, V. A. [Engineer], and S. D. Kuzinets [Engineer]. The Manufacture of Rims and Blades for Radial-Flow Turbines 98

Gal'perin, M. I. [Engineer], and Ya. F. Fiterman [Engineer]. Characteristic Features in the Restoration of Hydraulic Turbines at the Supung GES [Hydroelectric Station] 108

Aristov, A. V. [Engineer]. The Manufacture of High-Pressure Screw Pumps 117

Shklovskiy, M. M. [Engineer], and M. L. Vakhter [Engineer]. The [Ball-] Burnishing of Stainless- and Austenitic-Steel Wire 125

II. THE MECHANIZATION AND AUTOMATION OF LABOR-CONSUMING OPERATIONS

APPROVED FOR RELEASE: 08/10/2001 CIA-RDP86-00513R000617510012-8"

"APPROVED FOR RELEASE: 08/10/2001 CIA-RDP86-00513R000617510012-8

S/123/61/000/008/013/013
A004/A104

AUTHOR: Gurskiy, A.N.

TITLE: Investigating the efficiency of journals of austenite steel shafts in babbit bearing bushes

PERIODICAL: Referativnyy zhurnal, Mashinostroyeniye, no. 8, 1961; 25, abstract 8I175 (V sb. "Issled. elementov parovykh i gaz. turbin i osevykh kompressorov. [Tr. Leningr. metallich. z-da, 6]", Moscow-Leningrad, Mashgiz, 1960, 389 - 396)

TEXT: The author presents the layout of a test installation and analyzes the test methods and testing conditions. During the work of the journal of ЭИ-405 (EI-405) austenitic steel shafts in babbit bearing bushes (suitable for the operation conditions of large gas turbines) already after some hours operation riffles appeared on the shaft journal, which developed further into belt-like zones of wear. After 60 hours testing the journal was put out of operation. After the austenitic journal surface had been hardened by rollers (hardness of the hardened layer H_{RC} 30, of the base metal H_{RC} 18) a new test series was carried out under conditions approaching real service conditions to a maximum: starts and stops

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under full load, abrupt changes of the number of revolutions, etc. After 549 hours testing the state of the hardened journal had not changed. It is recommended, if austenitic rotors are used, to employ shell-type bushings of a material working well with babbit, besides hardening of the journals operating on babbit.

L. Dostoinova

[Abstracter's note: Complete translation]

APPROVED FOR RELEASE: 08/10/2001 CIA-RDP86-00513R000617510012-8"

"APPROVED FOR RELEASE: 08/10/2001 CIA-RDP86-00513R000617510012-8

GURSKIY, A. V.

Gurskiy, A. V. "Experience in tree planting on the gravelly banks of the rivers of the Gorno-Badakhshan Autonomous Oblast," Soobshch. Tadzh. filiala Akad. nauk SSR, Issue 12, 1949, p. 14-16.

SO: U-3736, 21 May 53, (Letopis 'Zhurnal 'nykh Statey, No. 17, 1949).

APPROVED FOR RELEASE: 08/10/2001 CIA-RDP86-00513R000617510012-8"

"APPROVED FOR RELEASE: 08/10/2001 CIA-RDP86-00513R000617510012-8

27025

Rost i dolgovechnost' archi na raznykh vysotakh. Soobshch, Tadzh. Filiala Akad. Nauk SSSR. Vyp.16.1949. S.24-26

SO: LETOPIS' NO. 34

APPROVED FOR RELEASE: 08/10/2001 CIA-RDP86-00513R000617510012-8"

"APPROVED FOR RELEASE: 08/10/2001 CIA-RDP86-00513R000617510012-8

1. GURSKIY, A. V.

2. USSR (600)

4. Tajikistan--Tree Planting

7. Method of planting vegetatively reproductive species of trees in Tajikistan, Soob. TFAN SSSR, No. 23, 1950.

9. Monthly List of Russian Accessions, Library of Congress, April, 1953, Uncl.

APPROVED FOR RELEASE: 08/10/2001 CIA-RDP86-00513R000617510012-8"

"APPROVED FOR RELEASE: 08/10/2001 CIA-RDP86-00513R000617510012-8

1. GURSKIY, A. V.

2. USSR 600

4. Pear - Gorno - Dabakhshan Autonomous Province

7. Large Kaion pear in Gorno-Badakhshan Autonomous Province, Soob. TFAN SSSR, No. 27, 1950.

9. Monthly List of Russian Accessions, Library of Congress, April 1953, Uncl.

APPROVED FOR RELEASE: 08/10/2001 CIA-RDP86-00513R000617510012-8"

"APPROVED FOR RELEASE: 08/10/2001 CIA-RDP86-00513R000617510012-8

GURSKIY, A. V.

"Basic Results of the Analysis of Woody Plants in the USSR (In the Development of the Soviet Theory of Introduction)."
Sub 13 Jun 51, Inst of Forestry, Acad Sci USSR.

Dissertations presented for science and engineering degrees in Moscow during 1951.

SO: Sum. No. 480, 9 May 55

APPROVED FOR RELEASE: 08/10/2001 CIA-RDP86-00513R000617510012-8"

"APPROVED FOR RELEASE: 08/10/2001 CIA-RDP86-00513R000617510012-8

GURSKIY, A.V.

Wild and cultivated woody plants of Soviet Badakhshan. Trudy TFAN SSSR 18:5-32 '51. (MIRA 8:8)
(Gorno-Badakhshan Autonomous Province—Botany)

APPROVED FOR RELEASE: 08/10/2001 CIA-RDP86-00513R000617510012-8"

"APPROVED FOR RELEASE: 08/10/2001 CIA-RDP86-00513R000617510012-8

1. GIRSKIY A.V., OSTATEVICH [illegible]

2. USSR (600)

4. Trees-Gorno-Badakhshan Autonomous Province

7. Processes of natural renewal of arborescent vegetation in the mountains of Badakhshan, Agrobiologiia no.6, 1952.

9. Monthly List of Russian Accessions, Library of Congress, April 1953, Uncl.

APPROVED FOR RELEASE: 08/10/2001 CIA-RDP86-00513R000617510012-8"

"APPROVED FOR RELEASE: 08/10/2001 CIA-RDP86-00513R000617510012-8

GURSKIY, A.V.; KANEVSKAYA, I.B.; OSTAPOVICH, L.F.; GRIGOR'YEV, Yu.S., otv. red.; MATVEYEV, M.I., red.; KOTSABENKO, Ye.G., red.izd-va; FROLOV, P., tekhn.red.

[Principal results of introducing plants in the Pamir Botanical Garden] Osnovnye itogi introduktsii rastenii v Pamirskom botanicheskom sadu. Stalinabad. Izd-vo Akad nauk Tadzh SSR. 1953. 97 p. (Akademiia nauk Tadzhikskoi SSR, Stalinabad. Trudy, vol.16) (MIRA 12:6)

(Gorno-Badakhshan Autonomous Province--Botanical gardens)

APPROVED FOR RELEASE: 08/10/2001 CIA-RDP86-00513R000617510012-8"

"APPROVED FOR RELEASE: 08/10/2001 CIA-RDP86-00513R000617510012-8

GURSKIY, A.V.; ZAPRYAGAYEVA, V.I.; KOROLEVA, A.S.; RYABOVA, T.I.; SMOL'SKIY, N.V., redaktor; KORBONSKAYA, Ya.I., redaktor; FROLOV, P., tekhnicheskiy redaktor.

[Landscaping cities and villages of Tajikistan] Ozelenenie gorodov i poselkov Takzhikistana. Stalinabad, Izd-vo Akademii nauk Tadzhikskoi SSR, 1953. 137 p. (Akademiia nauk Tadzhikskoi SSR, Stalinabad. Trudy, vol. 14) (MLRA 9:8)
(Tajikistan--Landscape gardening)

APPROVED FOR RELEASE: 08/10/2001 CIA-RDP86-00513R000617510012-8"

"APPROVED FOR RELEASE: 08/10/2001 CIA-RDP86-00513R000617510012-8

GURSKIY, A.V.

Sands of Ishkashim, their binding, and use. Izv.Otd.est.nauk AN Tadzh.SSR no.10:59-72 '55. (MLRA 9:10)

1. Pamirskiy botanicheskiy sad AN Tadzhikskoy SSR.
(Ishkashim--Waste lands)

APPROVED FOR RELEASE: 08/10/2001 CIA-RDP86-00513R000617510012-8"

"APPROVED FOR RELEASE: 08/10/2001 CIA-RDP86-00513R000617510012-8

GURSKIY, A.V.

Methods of estimating the state of forest plantations and predicting their growth and longevity. Biul.Glav.bot.sada no.21:16-24 '55. (MIRA 8:12)

1. Pamirskiy botanicheskiy sad Akademii nauk Tadzhikskoy SSR.
(Forests and forestry)

APPROVED FOR RELEASE: 08/10/2001 CIA-RDP86-00513R000617510012-8"

"APPROVED FOR RELEASE: 08/10/2001 CIA-RDP86-00513R000617510012-8

GURSKIY, ANATOLIY VALER'YANOVICH

N/5
632.7
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Osnovnyye itogi introduktsii drevesnykh rasteniy v SSSR (Basic results from the introduction of arboreal plants in the USSR) Moskva, Izd-vo Akademii Nauk SSSR, 1957.

301, (3) p. illus., diagrs., maps, tables.

At head of title: Akademiya Nauk Tadzhikskoy SSr. Botanicheskiy Institut.

"Literatura": p. 289-302

APPROVED FOR RELEASE: 08/10/2001 CIA-RDP86-00513R000617510012-8"

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SOKOLOV, Yu.L.; GURSKIY, A.V.

Experimental study on the effect of cosmic radiation on higher plants. Probl.kosm.biol. 2:164-169 '62. (MIRA 16:4)
(PLANTS, EFFECT OF COSMIC RAYS ON)

APPROVED FOR RELEASE: 08/10/2001 CIA-RDP86-00513R000617510012-8"

"APPROVED FOR RELEASE: 08/10/2001 CIA-RDP86-00513R000617510012-8

SOKOLOV, Yu.I.; GURSKIY, A.V.; OSTAPOVICH, [illegible]

Photoreactivation in higher plants. Biofizika 8 no.1:123-129 '63. (MIRA 17:8)

APPROVED FOR RELEASE: 08/10/2001 CIA-RDP86-00513R000617510012-8"

"APPROVED FOR RELEASE: 08/10/2001 CIA-RDP86-00513R000617510012-8

SOKOLOV, I. L.; GURSKIY, A. V.; OSTAPOVICH, L. F.

"Effect of ultraviolet radiation on higher plants."

report submitted for 10th Intl Botanical Cong, Edinburgh, 3-12 Aug 64.

Pamirs Botanical Garden, AS Tadzhik SSR, Horog.

APPROVED FOR RELEASE: 08/10/2001 CIA-RDP86-00513R000617510012-8"

"APPROVED FOR RELEASE: 08/10/2001 CIA-RDP86-00513R000617510012-8

BARANOV, Pavel Aleksandrovich; GURSKIY, [illegible], [illegible]; [illegible]
L.F.; STANYUKOVICH, K.V., otv. red.

[Agriculture and farm crops in Gorno-Badakhshan Autonomous Province, Tajik S.S.R.] Zemledelie i sel'skokhoziaistvennye kul'tury Gorno-Badakhshanskoi avtonomnoi oblasti Tadzhikskoi SSR. Dushanbe AN Tadzhik SSR. Vol.2. 1964. 205 p. (MIRA 18:3)

1. Chlen-korrespondent AN SSSR (for Baranov).

APPROVED FOR RELEASE: 08/10/2001 CIA-RDP86-00513R000617510012-8"

"APPROVED FOR RELEASE: 08/10/2001 CIA-RDP86-00513R000617510012-8

GURSKIY, A.V.

Study of the assimilating organs of plants. Biul. Glav. bot. sada no.57:3-10 '65. (MIRA 18:9)

1. Pamirskiy botanicheskiy sad AN Tadzhikskoy SSR, g. Khorog.

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"APPROVED FOR RELEASE: 08/10/2001 CIA-RDP86-00513R000617510012-8

L 27494-66 EWT(1) SCTB DD

ACC NR: AT6013446 SOURCE CODE: UR/3179/65/007/000/0005/0021

AUTHOR: Gurskiy, A. V.; Ostapovich, L. F.; Sokolov, Yu. L.

ORG: none

TITLE: Effect of high altitude conditions of the Pamir type on higher plants

SOURCE: Vsesoyuznoye botanicheskoye obshchestvo. Problemy botaniki, v. 7, 1965. Voprosy biologii i fiziologii rasteniy v usloviyakh vysokogoriy (Problems of biology and physiology of plants at high altitudes), 5-21

TOPIC TAGS: UV light, UV irradiation, plant development, plant ecology, radiation plant effect, plant growth, solar radiation effect

ABSTRACT: From 1940 to 1960 the Pamir Botanical Garden in Khorog investigated the effects of high altitude conditions on over 10,000 plants growing on Pamir slopes, which are marked by a dry continental climate and intense solar radiation. In the present article inherent characteristics of high altitude plants and effects of intense UV radiation including literature data are discussed. In a series of

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experiments using a quartz UV lamp to simulate solar radiation, the effects of different light intensities on plants were studied. Findings indicate that large UV radiation doses which often cause plant injuries under normal altitude conditions do not kill a single plant and in some cases produce a definite favorable effect. Productivity of many plants, such as onion, carrot, and barley, is increased with reduction of distance between plants and the UV lamp. Beet, radish, and sorghum crops are decreased with direct UV radiation and markedly increased when plants are placed along both sides of a lamp, indicating that these crops react more favorably to smaller UV radiation doses. Potatoes, cabbages, and beans react negatively to UV radiation. With irradiation of carrots, the roots increase in size and branch out extensively and the number of leaves also increases, indicating that UV radiation activates meristeme differentiation and induces new plant formations. In some cases the aftereffect of UV radiation is expressed in the following generation by changing an annual into a perennial. The dry climate and intense solar radiation of the Pamirs provide a unique natural laboratory for investigations of this type. Orig. art. has: 8 figures.

SUB CODE: 06/ SUBM DATE: none/ ORIG REF: 011/ OTH REF: 024

Card 2/2 BLG

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"APPROVED FOR RELEASE: 08/10/2001 CIA-RDP86-00513R000617510012-8

USSR/Weeds and Weed Control N

Abs Jour : Ref Zhur - Biol., No 9, 1958, No 39588

Author : Gurskiy B.E.
Inst : AS LatvSSR, Institute of Soil Science and Agriculture
Title : The Spread of Weeds in Crops of the Latvian SSR

Orig Pub : AN LatvSSR, 1956, 253-258

Abstract : The Institute of Soil Science and Agriculture of the Academy of Science Latvian SSR studied the degree of crop chocking out by weeds in the kolkhoz fields of the 19 rayons in the republic. The most widespread weeds are: couch grass (Agrophron repens), lamb's quarters (Chenopodium album), field horsetail (Equisetum), wild radish, field mustard, pink thistle, yellow thistle, common spurry, coltsfoot and others. It is recommended that dicotyledonous weeds be destroyed by sodium slat preparations 2.4D and 2M-4X. Weed-choked summer grain sowings, cultivated without additional sowing of leguminous grasses, must be sprayed in the tillering phase before the weeds of the mustard family start to blossom. The dose is 0.5-1 kg/ha. -- L.D. Atonov.

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"APPROVED FOR RELEASE: 08/10/2001 CIA-RDP86-00513R000617510012-8

GURSKIY, B.N.; MANYKIN, S.S.

Littoral facies in the Kharkov series of White Russia. Dokl. AN BSSR 7 no.12:825-828 D '63. (MIRA 17:8)

1. Institut geologicheskikh nauk Gosudarstvennogo geologicheskogo komiteta SSSR i Geologo-gidrogeologicheskaya ekspeditsiya Glavnogo upravleniya geologii i okhrany nedr pri Sovete Ministrov BSSR.

APPROVED FOR RELEASE: 08/10/2001 CIA-RDP86-00513R000617510012-8"

"APPROVED FOR RELEASE: 08/10/2001 CIA-RDP86-00513R000617510012-8

05410

8(SOV/107-59-8-30/49

AUTHOR: Gurskiy, G.

TITLE: Home-Made Litzendraht Wire

PERIODICAL: Radio, 1959, Nr 8, p 38 (USSR)

ABSTRACT: The author describes a method of manufacturing litzendraht wire LEShO or LEShD using ordinary wire PE, PEL or NEV. A note from the editor says that litzendraht wire is hardly used in modern mass produced radios, since the required Q-factor is obtained by means of special cores, etc. In some cases, however, litzendraht may still be used for obtaining very high Q-factors in narrow-band LF filters or special i-f filters.

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APPROVED FOR RELEASE: 08/10/2001 CIA-RDP86-00513R000617510012-8"

"APPROVED FOR RELEASE: 08/10/2001 CIA-RDP86-00513R000617510012-8

GURSKIY, G.

Conducting the training of mechanics. Prof.-tekh. obr. [illegible]
no.1:11-12 Ja '65. (MIRA [illegible])

APPROVED FOR RELEASE: 08/10/2001 CIA-RDP86-00513R000617510012-8"

"APPROVED FOR RELEASE: 08/10/2001 CIA-RDP86-00513R000617510012-8

GURSKIY, Genrikh [Gurski, H.]

Effect of light and weather on tarpaulin fabrics made from flax and hemp. Tekst.prom. 20 no.6:75-76 Je '60. (MIRA 13:7)

(Poland—Canvas)

APPROVED FOR RELEASE: 08/10/2001 CIA-RDP86-00513R000617510012-8"

"APPROVED FOR RELEASE: 08/10/2001 CIA-RDP86-00513R000617510012-8

ACCESSION NR: AR3010325 S/0272/63/000/008/0113/0113

SOURCE: RZh. Metrologiya i izmeritel'naya tekhnika, Abs. 8.32.779

AUTHOR: Khrizman, S. S., Gurskiy, G. I.

TITLE: A balanced selective amplifier for magnetic measurements at a frequency of 1 mc/sec

CITED SOURCE: Sb. tr. In-ta elektrotekhn. AN USSR, 15, 1961, 115-118

TOPIC TAGS: magnetic measurement

TRANSLATION: Bridge measurements at high frequencies of the characteristics of various ferromagnetic materials impose rigid requirements on the indicator connected to the bridge which introduces additional parasitic capacitances. The basic indicator element is a 3-stage selective amplifier with balanced input tuned to a frequency of 1 mc/sec. The amplifier is included in the measuring diagonal of the bridge without introducing appreciable errors into the measurement results.

DATE ACQ: 06Sep63 SUB CODE: SD ENCL: 00

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"APPROVED FOR RELEASE: 08/10/2001 CIA-RDP86-00513R000617510012-8

GURSKIY, G.L.; TRUBETSKOV, K.M.

Increasing the output of open-hearth furnaces. Metallurg 8 no. 11:13-17 N '63. (MIRA 16:12)

APPROVED FOR RELEASE: 08/10/2001 CIA-RDP86-00513R000617510012-8"

"APPROVED FOR RELEASE: 08/10/2001 CIA-RDP86-00513R000617510012-8

TRUBETSKOY, K.N.; GUBSKIY, G.L.

Increasing the output of open-hearth furnaces. Metallurg 9 no.10:20-22 O '64 (MIRA 18:1)

1. Tsentral'nyy nauchno-issledovatel'skiy institut chernoy metallurgii imeni I.P. Bardina i zavod "Zaporozhstal'".

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"APPROVED FOR RELEASE: 08/10/2001 CIA-RDP86-00513R000617510012-8

LUK'YANENKO, A.Z.; GURSKIY, G.L.

Jig-boring device. Av.prom. 26 no.8:80-82 Ag '57. (MIRA 15:4)
(Drilling and boring machinery)

APPROVED FOR RELEASE: 08/10/2001 CIA-RDP86-00513R000617510012-8"

"APPROVED FOR RELEASE: 08/10/2001 CIA-RDP86-00513R000617510012-8

GRIGOR'YEV, V.P.; LUZGIN, V.P.; ABROSIMOV, Ye.V.; ORLOV, V.I.; YAVOYSKIY, V.I.; GURSKIY, G.L.; GONCHAROV, I.A.; STARKOV, P.A.

Materials balance in the scrap metal-iron ore process. Izv. vys. ucheb. zav.; chern. met. 5 no.5:63-67 '62. (MIRA 15:6)

1. Moskovskiy institut stali zavod "Zaporozhstal'".
(Steel—Metallurgy)

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"APPROVED FOR RELEASE: 08/10/2001 CIA-RDP86-00513R000617510012-8

S/133/63/000/001/010/011
A054/A126

AUTHORS: Natapov, B. S., Soroko, L. N., Barziy, V. K., Filonov, V. A. (Deceased), Gurskiy, G. L., Ioffe, M. M., Letchford, N. I., Yudovich, S. Z.

TITLE: Improving the stamping properties of 08 Ю (08Yu) grade sheet steel

PERIODICAL: Stal', no. 1, 1963, 84 - 86

TEXT: A new technology has been developed to produce low-carbon (0.04 - 0.08%) steel suitable for cold rolling of automobile sheets having good stamping properties and which do not tend to age. From the tests (carried out in co-operation with I. A. Goncharov, G. Mikhaylov, F. A. Ksenzuk, V. G. Antipenko, M. Ye. Kugayenko, L. Dobrovol'skiy, L. I. Odinets, N. P. Cherkashina, A. K. Yaitskiy, I. N. Avramenko, M. I. Lyakhova, R. I. Razumovskaya, S. M. Popov, A. L. Khudas ("Zaporozhstal'"), N. P. Semperovich, V. Ye. Ol'shanetskiy, M. D. Voloshchuk, F. V. Sigalko (ZMI), K. M. Romanycheva, V. G. Kochevatov (GAZ)) it was concluded that the manganese content of the test grade should be lowered to 0.24 - 0.35%, while the quantity of other elements that increase the hardness

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of the steel (C, N, Si, Cu, etc.) should also be kept as small as possible. The content of residual aluminum, which has a stabilizing effect, should be increased to 0.04 - 0.09% (i. e. 900 - 1,100 g/ton in the mold), the temperature at the end of rolling should be 850 - 920°C, the winding temperature after rolling 540 - 610°C, which promotes the formation of oblong ferrite grains and improves the cementite distribution. The finishing stand should be adjusted to reductions of 0.6 - 1.8%. The new steel is suitable for very deep drawing (according to ГОСТ 9045-59 (GOST 9045-59). In the tests aluminum of a purity of 99.9% and another kind having 13% admixtures were used. However, the favourable results obtained with the 99.9% aluminum could only be approximated, but not achieved with the second grade aluminum, even when in the latter case the annealing time was extended from 8 to 12 hours. There are 1 figure and 2 tables.

ASSOCIATION: Zaporozhskiy mashinostroitel'nyy institut (Zaporozh'ye Engineering Institute), Zavod "Zaporozhstal'" (Zaporozhstal'" Plant), and Gor'kovskiy avtomobil'nyy zavod (Gorkiy Automobile Plant)

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MARAKHOVSKIY, I.S.; GURSKIY, G.L.; FURMAN, Yu.S.; SHCHASTNYY, I.M.

Deoxidation of 08kp steel with fast bottom pouring. Metallurg 10 no.7:26-27 Jl '65. (MIRA 18:7)

1. Zavod "Zaporozhstal'" i institut "UkrNIIspetsstal'".

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"APPROVED FOR RELEASE: 08/10/2001 CIA-RDP86-00513R000617510012-8

YUPKO, L.D.; TRUBETSKOV, K.M.; GURSKIY, G.L.; TEREKHOV, I.A.; GUSEV, V.F.; VOYTOV, A.O.

Accelerating open-hearth furnace smelting with an increased use of oxygen. Stal' 23 no.1:16-19 Ja '63. (MIRA 16:2)

1. Zavod "Zaporozhstal'", TSentral'nyy nauchno-issledovatel'skiy institut chernoy metallurgii i TSentroenergochermet.
(Open-hearth process) (Oxygen--Industrial applications)

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"APPROVED FOR RELEASE: 08/10/2001 CIA-RDP86-00513R000617510012-8

TURUBINER, A.L.; GURSKIY, G.L.; SAVIN, A.I.; TEREKHOV, A.I.; GUSEV, V F.; LEBEDEVA, V.F.

Influence of thermal conditions on the self-carburation and radiation of the natural gas flame. Stal' 24 no.11:985-989 N '64.
(MIRA 18:1)

APPROVED FOR RELEASE: 08/10/2001 CIA-RDP86-00513R000617510012-8"

"APPROVED FOR RELEASE: 08/10/2001 CIA-RDP86-00513R000617510012-8

AUTHOR: Gurskiy, G.T., Engineer SOV/91-58-12-8/20

TITLE: A Method of Balancing the Rotors of the Yungstrem Turbogenerators (Metod balansirovki rotorov turbogeneratora Yungstrem)

PERIODICAL: Energetik, 1958, Nr 12, pp 16-17 (USSR)

ABSTRACT: Operations of the Yungstrem turbogenerator (5,000 kW capacity and 3,000 rpm) were for a long period accompanied by abnormally high vibrations (120 to 150 microns). Although a careful dynamic balancing in line with the directives published by the Technical Bureau of the Ministry of Power Plants was carried out, no positive results were observed. A thorough analysis of the failure showed that an erroneous balancing method was used. Positive results were obtained by applying separate dynamic balancing of the generator's and turbine's rotors. The technology of the primary as well as secondary balancing operations is given. Vibration

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SOV/91-58-12-8/30

A Method of Balancing the Rotors of the Yungstrem Turbogenerators

amplitude became normal (not more than 30 microns). This method is said to be suitable also for balancing other types of rotors, e.g. the generator rotors with console-type exciters.
There is 1 diagram.

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"APPROVED FOR RELEASE: 08/10/2001 CIA-RDP86-00513R000617510012-8

GURSKIY, G.V.

Study of the natural gamma field of the earth in certain regions of the Pripet Polesye. Dokl. AN BSSR 7 no.2:111-114 F '63. (MIRA 16:7)

1. Institut geologicheskikh nauk AN BSSR. Predstavleno akademikom AN BSSR G.V. Bogomolovym.
(Polesye—Radiometry)

APPROVED FOR RELEASE: 08/10/2001 CIA-RDP86-00513R000617510012-8"

"APPROVED FOR RELEASE: 08/10/2001 CIA-RDP86-00513R000617510012-8

GURSKIY, G.V.; SHNEYEROV, Ya.A.; YAKUBOVICH, M.A.

Carry out the decisions of the All-Union Conference of Steelmakers.
Stal' 24 no.7:577-583 Jl '64. (MIRA 18:1)

APPROVED FOR RELEASE: 08/10/2001 CIA-RDP86-00513R000617510012-8"

"APPROVED FOR RELEASE: 08/10/2001 CIA-RDP86-00513R000617510012-8

SOV/137-58-7-14480

Translation from: Referativnyy zhurnal, Metallurgiya, 1958, Nr 7, p 79 (USSR)

AUTHOR: Gurskiy, no initials given (G.V.)

TITLE: Continuous Casting of Steel at the Novotul'skiy Metallurgical Plant (Nepreryvnaya razlivka stali na Novotul'skom metallurgicheskom zavode)

PERIODICAL: Byulleten' tekhn. ekon. inform. Soveta narodnogo khozyaystva Tul'skogo ekon. administrat. r-na, 1957, Nr 1, pp 21-27

ABSTRACT: The author describes the design of a pilot-plant installation for continuous casting of steel at the Novotul'skiy metallurgical plant (RZhMet, 1957, Nr 2, abstract 2052). The installation is employed for casting of slabs with a cross section of 150x200 mm as well as square 200x200-mm stock of carbon, low-alloy, and transformer steels. Casting of the square stock is accomplished in two streams. The effect of the design of the major installation components (pouring devices, crystallizer unit, the system of secondary cooling) on the process of casting and on the quality of continuously cast ingots is examined together with the effect of technological factors (rate of pouring of metal, the

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Continuous Casting of Steel at the Novotul'skiy Metallurgical Plant

intensity of the secondary cooling of blanks, the temperature of metal, lubrication, etc.). The author stresses the need for controlling the rate of casting depending on the fluidity of the meniscus of liquid metal in the crystallizer. A brief description of the properties of continuously cast ingots is given together with a description of the properties of the rolled metal.

N.N.

1. Industrial plants--Design 2. Steel castings--Production

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"APPROVED FOR RELEASE: 08/10/2001 CIA-RDP86-00513R000617510012-8

AFANAS'YEV, S.G.; SHUMOV, M.M.; EPSHTEYN, Z.D.; ANDREYEV, T.V.; KVITKO, M.P.; GURSKIY, G.V.

Preliminary data on converter reduction of naturally alloyed iron. Stal' 17 no.4:310-317 Ap '57. (MLRA 10:5)

1.TSentral'nyy nauchno-issledovatel'skiy institut chernoy metallurgii i Novo-Tul-skiy zavod.
(Cast iron--Metallurgy)

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DANIKHELKA, A., doktor, inzh.; MIKHAYLOV, O.A., kand. tekhn. nauk; GONCHARENKO, N.I.; KLIMASENKO, L.S.; OYKS, G.N., prof., doktor tekhn. nauk; SEMENENKO, P.P.; MOROZOV, A.N., prof., doktor tekhn. nauk; GLINKOV, M.A., prof., doktor tekhn. nauk; KAZANTSEV, I.G., prof., doktor tekhn. nauk; KOCHO, V.S., prof., doktor tekhn. nauk; ENNEKESH, Sh., kand. tekhn. nauk; MOROZENSKIY, L.I., kand. tekhn. nauk; GURSKIY, G.V.; SPERANSKIY, V.G.; NOVIK, L.M., kand. tekhn. nauk, starshiy nauchnyy sotrudnik; SHNEYEROV, Ya.A., kand. tekhn. nauk; PAPUSH, A.G., kand. tekhn. nauk; MAZOV, V.F.; SAMARIN, A.M.

Discussions. Biul. TSNIICHM no.18/19:17-35 '57. (MIRA 11:4)

1. Glavnyy staleplavil'shchik Ministerstva metallurgicheskoy promyshlennosti i rudnikov Chekhoslovatskoy respubliki (for Danikhelka). 2. Direktor TSentral'nogo instituta informatsii chernoy metallurgii (for Mikhaylov). 3. Direktor Ukrainskogo instituta metallov (for Goncharenko). 4. Glavnyy staleplavil'shchik Kuznetskogo metallurgicheskogo kombinata (for Klimasenko). 5. Zaveduyushchiy kafedroy metallurgii stali Moskovskogo instituta stali (for Oyks). 6. Zamestitel' glavnogo inzhenera zavoda im. Serova (for Semenenko). 7. Zaveduyushchiy kafedroy metallurgii stali Chelyabinskogo politekhnicheskogo instituta (for Morozov). 8. Zaveduyushchiy kafedroy metallurgicheskikh pechey Moskovskogo instituta stali (for Glinkov). 9. Zaveduyushchiy kafedroy metallurgii stali Zhdanovskogo metallurgicheskogo instituta (for Kazantsev). 10. Zaveduyushchiy kafedroy metallurgii stali Kiyevskogo politekhnicheskogo instituta (for Kocho).

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DANIKHELKA, A.--(continued) Card 2.

11. Nachal'nik tekhnicheskogo otdela Ministerstva chernoy metallurgii Vengerskoy Narodnoy Respubliki (for Enekesh). 12. Zamestitel' direktora Novotul'skogo metallurgicheskogo zavoda (for Gurskiy). 13. Nachal'nik tekhnicheskogo otdela zavoda "Dneprospetsstal' (for Speranskiy). 14. Institut metallurgii im. Baykova AN SSSR (for Novik). 15. Nachal'nik staleplavil'noy laboratorii Ukrainskogo instituta metallov (for Shneyerov). 16. Nachal'nik laboratorii po nepreryvnoy razlivke stali Zhdanovskogo filiala TSentral'nogo nauchno-issledovatel'skogo instituta Ministerstva stroitel'noy promyshlennosti (for Papush). 17. Nachal'nik martenovskogo tsekha zavoda "Zaporozhstal'" (for Mazov). 18. Zemestitel' direktora Instituta metallurgii im. Baykova AN SSSR, chlen-korrespondent AN SSSR (for Samarin).

(Steel--Metallurgy)

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18(0) PHASE I BOOK EXPLOITATION SOV/1728

Akademiya nauk SSSR. Institut metallurgii

Sovremennyye problemy metallurgii (Modern Problems in Metallurgy) Moscow, Izd-vo AN SSSR, 1958. 640 p. 3,000 copies printed.

Resp. Ed.: A.N. Samarin, Corresponding Member, USSR Academy of Sciences; Eds. of Publishing House: V.S. Rzhevnikov, and A.F. Dernov; Tech. Ed.: T.V. Polyakova.

PURPOSE: This book is intended for scientific and technical personnel in the field of metallurgy.

COVERAGE: This is a collection of articles on certain aspects of Soviet metallurgy. The book is dedicated to Academician Ivan Pavlovich Bardin on the occasion of his 75th birthday. The book is divided into seven parts. The first part consists of two articles presenting a brief account of the biography and professional activity of the Soviet metallurgist. It includes an article by John Chipman, Nicholas Grant, and John Elliott (M.I.T., USA) describing their meeting with Bardin in Moscow and also his visit to the United States. The second part consists of three articles and deals with raw materials and fuels for the Soviet metallurgical industry. The third part represents the major portion of the book. It consists of 25 articles dealing with the various aspects of the metallurgy of pig iron and steel. The fourth part consists of two articles treating the metallurgy of nonferrous metals. The fifth part consists of three articles on the forming of metals. The sixth part consists of eight articles discussing certain aspects of physical metallurgy. The last part deals with general problems in the field of metallurgy. References are given after each article. No personalities are mentioned.

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"APPROVED FOR RELEASE: 08/10/2001 CIA-RDP86-00513R000617510012-8

133-58-5-13/31

AUTHORS: Lopatyshkin, N. M., Candidate of Technical Sciences
Rutes, V. S., Candidate of Technical Science and
Gurskiy, G. V., Engineer

TITLE: An Investigation of the Quality of Continuously Cast Transformer Steel (Issledovaniye kachestva transformatornoy stali nepreryvnoy razlivki)

PERIODICAL: Stal', 1958, Nr 5, pp 417-425 (USSR)

ABSTRACT: In 1956-7 TsNIICHM in cooperation with Novo-Tulskiy (NTMZ) and Verkh-Isetskiy Works and later with the Urals Institute of Metals carried out a study of continuous casting of transformer steel into slabs 470 x 150 mm and blooms 200 x 200 mm. Steel was produced in 5 and 10 ton electric furnaces. Altogether nineteen heats with silicon content 4.0 to 4.5% were cast into slabs (including twelve electric heats and two convertor heats blown with oxygen) and fifteen heats with silicon content 3.0 to 3.5% were cast into blooms. In the present paper no details of continuous casting are given. The paper deals with the following problems: the quality of the surface of cast semis, cutting of semis, cooling conditions of semis, structure of semis, non-metallic inclusions and chemical

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133-58-5-13/31

An Investigation of the Quality of Continuously Cast Transformer Steel

non-uniformity of cast semis, rolling of semis into sheet billets and sheets, thermal treatment of rolled sheets and the quality of sheets. Altogether five heats were investigated. Fig.1 - changes in the crust thickness during continuous casting of slabs of transformer steel and the crystallisation front at a casting velocity of 0.7 m/min (crystalliser-mould 1400 mm long of a cross section 150 x 500 mm). A - the thickness of the crust of wide face, b - of narrow face; Fig.2 - the dependence of specific pressure on the preheating temperature of dynamo (E-11) and transformer (E-41) steels at 45% reduction; Fig.3 - the dependence of plastic properties (relative elongation and relative reduction) of transformer steel on the testing temperature; Fig.4 - the position of cold cracks in cast slabs cooled in air; Fig.5 - macrostructure of transverse templets of slabs at high (a) and low (b) casting temperatures and (c) of blooms; Fig.6 - fracture of slab; Fig.7 - microstructure of undercrust (a) and columnar (b) zones of cast slab; Fig.8 - changes in the chemical composition along the cross section of slabs; Fig.9 - distribution of non-metallic inclusions along the

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133-58-5-13/31

An Investigation of the Quality of Continuously Cast Transformer Steel

cross section of slabs; Fig.10 - comparison of specific losses (P 10) for sheets of normal and experimental production (a and a_1); Fig.11 - comparison of plastic properties of sheets from experimental (b and g) and normal production (a); Fig.12 - structure of not annealed sheets from a cast slab; Fig.13 - structure of sheets after electro-vacuum annealing. Table 1 - the composition of non-metallic inclusions in transformer steel; Table 2 - chemical composition of tested sheets. Conclusions:

1. The possibility of continuous casting of transformer steel into rectangular and square semis without decreasing its electric properties was established.
2. Due to a high plasticity of transformer steel at temperatures above 950 to 1000°C and in view of a considerable casting velocity a partial reduction of cast semis in drawing rolls is possible.
3. The structure of continuously cast semis depends mainly on the metal temperature; globular, grainy structure without transcrystallisation zone is obtained at low casting temperatures.

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133-58-5-13/31

An Investigation of the Quality of Continuously Cast Transformer Steel

4. Silicon ferrite is more resistant to the formation of internal and surface hot cracks during continuous casting than open hearth St.3 steel. Porosity, internal cracks and shrinkage cavities in transformer steel are welded during rolling.
5. Cast slabs should be annealed at 650 to 700°C in order to remove internal stresses and cooled slowly in the temperature range 300 to 50°C (cooling in stacks is possible). Cast square semis can be cooled and stacked (without high annealing) as they are more resistant than slabs to the formation of transverse cold cracks.
6. Flame cutting of continuously cast semis is possible only when their temperature is not lower than 300 to 400°C.
7. Mechanical properties (plasticity) of transformer sheets from continuously cast semis is higher than those made from ordinary ingots. This permits increasing silicon content of steel in cast slabs and thus improves the electro-technical properties of transformer sheets.

There are 2 tables, 13 figures and 3 references, all of which are Soviet.

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133-58-5-13/31

An Investigation of the Quality of Continuously Cast Transformer Steel

ASSOCIATION: TsNIIChM, Novo-Tul'skiy metallurgicheskiy zavod) (TsNIIChM, Novo-Tulskiy Metallurgical Works)

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18.3200

75948
SOV/133-59-10-9/29

AUTHORS: Gurskiy, G. V., Kirillov, M. V., Kotin, S. M., Skripchuk, V. S.

TITLE: Comments on Recirculation Recuperative Steelmelting Furnace

PERIODICAL: Stal', 1959, Nr 10, pp 898-900 (USSR)

ABSTRACT: In comparing performance figures of a recirculation and an open-hearth furnace, as obtained by Glinkov, M. A., and Demin, G. I. (Stal', 1959, Nr 1), the authors point out that working conditions were not identical for both furnaces and consequently, results are inadequate. Six years of tests revealed that recirculation recuperative furnaces are inferior in capacity and performance to standard open-hearth furnaces. There are 2 tables; and 1 Soviet reference.

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"APPROVED FOR RELEASE: 08/10/2001 CIA-RDP86-00513R000617510012-8

SMOLYARENKO, Daniil Abramovich; YEFANOV, N.I., retsenzent; SOKOLOV, N.A., retsenzent; GURSKIY, G.V., retsenzent; BURNASHEV, S.M., retsenzent; GROMOV, N.D., red.izd-va; ISLENT'YEVA, P.G., tekhn. red.

[Quality of carbon steel] Kachestvo uglerodistoi stali. Moskva, Gos. nauchno-tekhn.izd-vo lit-ry po chernoi i tsvetnoi metallurgii, 1961. 244 p. (MIRA 14:12)
(Steel--Metallurgy) (Metallurgical plants--Qaulity control)

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"APPROVED FOR RELEASE: 08/10/2001 CIA-RDP86-00513R000617510012-8

BR

S/148/62/000/002/001/008
E073/E535

AUTHOR: Gurskiy, G.V.

TITLE: Main trends in increasing the steel production capacity

PERIODICAL: Izvestiya vysshikh uchebnykh zavedeniy, Chernaya metallurgiya, no.2, 1962, 5-8

TEXT: During the next twenty years the production capacity of the Soviet iron and steel industry is to be increased to 250 million tons per annum of steel, which is in excess of the combined total 1960 capacity of Great Britain, West Germany, France, Japan and the United States. A large number of new convertor and oxygen-enriched convertor plants are to be put into operation and attention will also be paid to improving further the open-hearth process and to increase the series manufacture of large oxygen manufacturing plants. By various refinements it was possible to improve the productivity of experimental open-hearth furnaces by a factor of 1.5. However, these laboratory results have still to be developed sufficiently to permit industrial utilization. The use of large units is more

Card 1/2

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economical and the calculated relative cost indices are as follows:

Open-hearth furnace capacity, tons	185	220	370	440
Production cost of carbon steel, %	100	99	97	96.5
Capital cost per ton of steel, %	100	96.3	89.3	87.2
Productivity of labour, %	100	117.9	129.4	131.3

Calculations were also made for open-hearth furnaces of 500 ton and 850 ton capacity. The anticipated 1965 capacity will be as follows: convertors - three times, electric furnaces - twice, open-hearth furnaces - 1.28 times the 1958 value. Considerable additional effort will be required in order to develop such processes as: continuous manufacture of steel, production of steel directly from the ore, further improvement of continuous casting, vacuum treatment of steel, methods of production of special alloys and ferro-alloys.

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"APPROVED FOR RELEASE: 08/10/2001 CIA-RDP86-00513R000617510012-8

VOINOV, S.G.; KOSOY, L.F.; SHUMOV, M.M.; SHALIMOV, A.G.; CHEKHOMOV, O.M.; ANDREYEV, T.B.; AFANAS'YEV, S.G.; KALINNIKOV, Ye.S.; Prinimali uchastiye: KORNEYENKOV, A.N.; GURSKIY, G.V.; BOKSHITSKIY, Ya.M.; PETROV, A.K.; MOKHIR, Ye.D.; KOLYASNIKOVA, R.I.; KHASIN, G.A.; DANILIN, V.P.; PLEKHANOV, P.S.; MAZUN, A.I.; MARKIN, A.A.

Refining converter steel in the ladle with liquid synthetic slag. Stal' 22 no.3:226-232 Mr '62. (MIRA 15:3)
(Steel—Metallurgy)

APPROVED FOR RELEASE: 08/10/2001 CIA-RDP86-00513R000617510012-8"

"APPROVED FOR RELEASE: 08/10/2001 CIA-RDP86-00513R000617510012-8

MOROZOV, Yu.V.; NABERUKHIN, Yu.I.; GURSKIY, G.V.

Effect of the crystallization of a solvent on the luminescence of dyes. Opt.i spektr. 12 no.5:599-605 My '62. (MIRA 15:5)
(Dyes and dyeing) (Luminescence)

APPROVED FOR RELEASE: 08/10/2001 CIA-RDP86-00513R000617510012-8"

"APPROVED FOR RELEASE: 08/10/2001 CIA-RDP86-00513R000617510012-8

ACC NR: AP6032702 SOURCE CODE: UR/0217/66/011/005/0737/0746

AUTHOR: Gurskiy, G. V.

ORG: Institute of Molecular Biology, AN SSSR, Moscow (Institut molekulyarnoy biologii AN SSSR)

TITLE: Reactions of acridines with DNA

SOURCE: Biofizika, v. 11, no. 5, 1966, 737-746

TOPIC TAGS: ~~molecular~~ biophysics, acridine dye, DNA, molecular biology, stereochemistry, biochemistry

ABSTRACT: Results of studying the reactions of acridines with DNA can help to illustrate mechanisms of genetic recombination in that they form links between nucleotides of the double helix, thus increasing crossover frequency with resulting deletions or additions to one of the base pairs. There are two types of amino acridine-DNA bonding situations: one where ($P/D \geq 4$) where P is the number of DNA nucleotides and D is the number of acridine molecules, and one in which $1 \leq P/D \leq 3$. The first type is discussed. In theory acridine molecules are "inserted" between a pair of DNA bases. Such "insertion" is accompanied by the rotation of a large number of various phosphate containing groups about axes lying in different planes. There is little basis for assum-

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APPROVED FOR RELEASE: 08/10/2001 CIA-RDP86-00513R000617510012-8"

"APPROVED FOR RELEASE: 08/10/2001 CIA-RDP86-00513R000617510012-8

ACC NR: AP6032702

ing that these events are not connected with the overcoming of large potential barriers and do not demand a large expenditure of energy. The establishment of this type of model is based on the unique place in stereochemistry of DNA-acridine complexes. Therefore, analyses were made of the reactive properties of non-planar aromatic analogs of acridine with molecules with long side chains as well as studies of the bonding of acridine with these compounds. In the formation of DNA-acridine complexes, electrostatic forces play an important role in the reaction between acridine cations and phosphate groups of DNA, illustrating the dependence of the number of bound molecules on ionic strength. The positive charge of an acridine molecule is concentrated on N-10 as shown in Fig. 1. Various substituents can significantly change the electron density distribution in the molecule and the partial charge at this nitrogen atom. Either amino or dimethylamino groups can be found on the 2nd, 5th, or 8th position on the acridine ring. These molecules possess resonance structures in which the charges are concentrated at the nitrogen atoms of the amino groups and not on N-10. In acridine-DNA complexes the atomic groups of acridines carrying positive charges are closest to the phosphate groups of the DNA strand. From a stereochemical point of view, the most likely position for an acridine molecule to be found is in a very narrow region where it is subject to Van Der Waals forces as well as to electrostatic interaction with phosphate groups. Studies of temperature effects and X-ray diffraction re-

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ACC NR: AP6032702

sults were also obtained, as well as data on the relative ease of such reactions. In the acridine yellow molecule, methyl groups in positions three and seven come into contact with aliphatic groups of ribose while

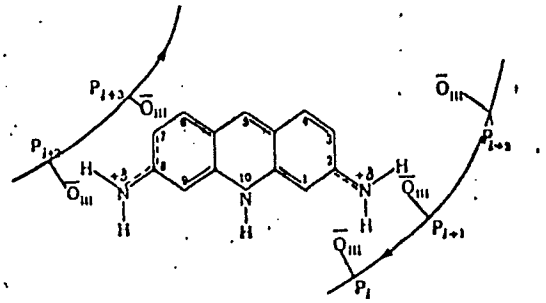

Fig. 1. Schematic representation of a proflavin--DNA complex

Each line shows a separate polynucleotide chain, and the sequence of atoms in it is shown by arrows.

the amino group in the 5 position of 2,5-diamino acridine forms a hydrogen bond with the carbonyl group of thymine. The reactions of acridines with DNA differ from their reactions with metal cations because acridines possess additional limitations connected with the packing of a massive organic cation, a narrow layer of which fits that part of the DNA surface which possesses the greatest surface density of charged phosphate groups. Various physical properties of the acridine-DNA com-

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"APPROVED FOR RELEASE: 08/10/2001 CIA-RDP86-00513R000617510012-8

ACC NR: AP6032702

plex were determined. Orig. art. has: 2 figures, 1 table, and 15 formulas. [W.A. 50]

SUB CODE: 06/ SUBM DATE: 11Aug65/ ORIG REF: 024/ OTH REF: 004

Card 4/4

APPROVED FOR RELEASE: 08/10/2001 CIA-RDP86-00513R000617510012-8"

"APPROVED FOR RELEASE: 08/10/2001 CIA-RDP86-00513R000617510012-8

NAZARENKO, L.F.; GURSKIY, I.G.

Acclimatization of pheasants in the northwestern Black Sea region. Ornitologiia no.6:477-478 '63. (MIRA 17:6)

APPROVED FOR RELEASE: 08/10/2001 CIA-RDP86-00513R000617510012-8"

"APPROVED FOR RELEASE: 08/10/2001 CIA-RDP86-00513R000617510012-8

GURSKIY, Isaak Pavlovich; PAZEL'SKIY, S.V., red.; TSYPPO, R.V., tekhn. red.

[Functions and the construction of graphs] Funktsii i postroenie grafikov; posobie dlia uchitelei. Moskva, Uchpedgiz, 1961. 215 p. (MIRA 15:6)

(Functions) (Graphic methods)

APPROVED FOR RELEASE: 08/10/2001 CIA-RDP86-00513R000617510012-8"

"APPROVED FOR RELEASE: 08/10/2001 CIA-RDP86-00513R000617510012-8

GURSKIY, Isaak Pavlovich; PAZEL'SKIY, S.V., red.

[Functions and the construction of graphs; a textbook for teachers] Funktsii i postroenie grafikov; posobie dlia uchitelei. Izd.2., ispr. Moskva, Prosveshchenie, 1964. 215 p. (MIRA 17:7)

APPROVED FOR RELEASE: 08/10/2001 CIA-RDP86-00513R000617510012-8"

"APPROVED FOR RELEASE: 08/10/2001 CIA-RDP86-00513R000617510012-8

SEVERDENKO, V.P.; GURSKIY, L.I.

Physical state of a surface layer undergoing plastic deformation. Dokl. AN BSSR 8 no. 3:154-156 Mr '64. (MIRA 17:5)

1. Fiziko-tekhnicheskiy institut AN BSSR.

APPROVED FOR RELEASE: 08/10/2001 CIA-RDP86-00513R000617510012-8"

"APPROVED FOR RELEASE: 08/10/2001 CIA-RDP86-00513R000617510012-8

SEVERDENKO, V.P.; GURSKIY, L.I.

Broadening in fractional deformation. Dokl. AN BSSR 8 no.7:444-446 '64. (MIRA 17:10)

1. Fiziko-tekhnicheskiy institut AN BSSR.

APPROVED FOR RELEASE: 08/10/2001 CIA-RDP86-00513R000617510012-8"

"APPROVED FOR RELEASE: 08/10/2001 CIA-RDP86-00513R000617510012-8

L 11320-67 EWP(k)/EWT(m)/EWP(t)/ETI IJP(c) JD/HW

ACC NR: AR6022168 SOURCE CODE: UR/0137/66/000/003/1035/1035

41

AUTHOR: Severdenko, V. P.; Gurskiy, L. I.; Tochitskiy, E. I.; Chaplanov, A. M.

TITLE: Distribution of dislocation density during plastic deformation of metals

SOURCE: Ref. zh. Metallurgiya, Abs. 31237

REF SOURCE: Sb. Metallovedeniye i term. obrabotka met. Minsk, Nauka i tekhnika, 1965, 49-57

TOPIC TAGS: crystal lattice dislocation, plastic deformation, iron property

ABSTRACT: The electron microscope and x-ray analysis were used for determining dislocation density in iron by transillumination after cold plastic deformation. The deformation conditions used were single-pass rolling and multiple-pass rolling with unit reductions of 1-1.5% to the same total degree of deformation as with the single-pass method. Dislocation density was determined in surface layers of a strip with an original thickness of 12 mm after deformation by 9.7, 13.4, 20.0, 32.4 and 45.3%. A URS-50I diffractometer was used for x-ray analysis. Both the dimensions of coherent scattering regions and microdistortions of the crystal lattice were used in determining dislocation density. It is found that the density of dislocations in the case of multiple-pass deformation is considerably lower and the distribution of the dislocations with respect to the cross section of the strip is more uniform than for the case

Card 1/2 UDC: 548.4:539.3:669.01

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L 11320-67
ACC NR: AR6022168

of single-pass rolling. The results confirm the possibility of using the electron microscope and x-ray analysis for a quantitative determination of dislocation density. V. Ivanova. [Translation of abstract]

SUB CODE: 11, 20

Card 2/2 bab

APPROVED FOR RELEASE: 08/10/2001 CIA-RDP86-00513R000617510012-8"

"APPROVED FOR RELEASE: 08/10/2001 CIA-RDP86-00513R000617510012-8

L 8644-65 EWT(m)/EWP(k)/EWP(b) Pf-4 JD/HW

ACCESSION NR: AP4044256 S/0250/64/008/007/0444/0446

AUTHOR: Severdenko, V. P.; Gurskiy, L. I.

TITLE: Spread in multistage deformation

SOURCE: AN BSSR. Doklady*, v. 8, no. 7, 1964, 444-446

TOPIC TAGS: small reduction deformation, multistage deformation, multipass rolling, small reduction multipass rolling

ABSTRACT: The effect of the magnitude of per-pass reduction on the spread of rolled metal was studied with copper bars 11 mm thick and 15 mm wide. The bars, vacuum annealed at 650C, were rolled with a total reduction of 9—96% either in one pass or in several passes with an absolute reduction of 0.06 mm per pass. It was found that multipass rolling with small reductions per pass reduces considerably the spread of metal. For instance, a bar rolled in one pass with a reduction of 90% spread approximately 95%, while a bar rolled with the same total reduction of 90% but with small reductions per pass spread only 30%. Thus, in rolling with small per-pass reductions, the displacement of metal in the transverse direction and consequently

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L 8644-65

ACCESSION NR: AP4044256

the residual stresses caused by this displacement are considerably smaller than those in rolling with high reductions. Orig. art. has: 2 figures.

ASSOCIATION: Fiziko-tekhnicheskiy institut, AN BSSR (Institute of Engineering Physics, AN BSSR)

SUBMITTED: 10Feb64 ATD PRESS: 3111 ENCL: 00

SUB CODE: MM, IE NO REF SOV: 006 OTHER: 000

Card 2/2

APPROVED FOR RELEASE: 08/10/2001 CIA-RDP86-00513R000617510012-8"

"APPROVED FOR RELEASE: 08/10/2001 CIA-RDP86-00513R000617510012-8

SEVERDENKO, V.P.; GURSKIY, L.I.

Certain characteristics of fractional rolling. Izv. vys. ucheb. zav.; chern. met. 8 no.5:119-123 '65. (MIRA 18:5)

1. Fiziko-tekhnicheskiy institut AN BSSR.

APPROVED FOR RELEASE: 08/10/2001 CIA-RDP86-00513R000617510012-8"

"APPROVED FOR RELEASE: 08/10/2001 CIA-RDP86-00513R000617510012-8

SOV/85-58-10-32/34

AUTHOR: Gurskiy, M., Aeroclub Leader (Nikolayev)

TITLE: Our Aeroclub (Nash aeroklub)

PERIODICAL: Kryl'ya rodiny, 1958, Nr 10, inside back cover (USSR)

ABSTRACT: The author tells of the opening of an aeroclub for school children in the city of Nikolayev in the fall of 1957 near the Palace of Pioneers. Local organizations supplied the club with 2 Yak-18 planes and one M 11-FR cutaway engine. The Kirovograd aeroclub sent the cutaway engine, the DOSAAF Oblast Committee a BRO-11 glider, and the Central DOSAAF Rayon Committee sent parachutes for training. Four photographs show school children at work in various classrooms.

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APPROVED FOR RELEASE: 08/10/2001 CIA-RDP86-00513R000617510012-8"

"APPROVED FOR RELEASE: 08/10/2001 CIA-RDP86-00513R000617510012-8

GURSKIY, M. A.

27276. GURSKIY, M. A. Lechenie trikhodektoza u zhivotnykh. Referat. Veterinariya, 1949, No.9, s. 29-31.

So: Letopis' Zhurnal'nykh Statey, Vol. 36, 1949.

Translation - "Treatment of Trichodectiasis in Animals,"

Kiev Vet. Inst.

APPROVED FOR RELEASE: 08/10/2001 CIA-RDP86-00513R000617510012-8"

"APPROVED FOR RELEASE: 08/10/2001 CIA-RDP86-00513R000617510012-8

ACCESSION NR: AP4033647 S/0250/64/008/003/0154/0156

AUTHORS: Severdenko, V. P.; Gurskiy, L. I.

TITLE: A study of the physical state of a surface layer with plastic deformation

SOURCE: AN BSSR. Doklady*, v. 8, no. 3, 1964, 154-156

TOPIC TAGS: fractional rolling, plastic deformation, electrolytic polishing, electron diffraction camera EM 4, crystal, Armco iron, M 1 copper

ABSTRACT: The surface layer on Armco iron and M-1 copper under fractional rolling was studied. The stock (50 mm long, 25 mm wide, and 1-10 mm thick) was rolled with 400 mm diameter cylindrical rollers. The total deformation was 50, 70, and 80%. Previous work showed that the greatest irregularity in the plastic deformation of the surface occurred with reductions of 1-2% per pass; this study was limited to reductions of 1-1.5% per pass. With small reductions the crystals in the surface are crushed and the crystal lattice distorted. Previous experiments showed that with plastic deformation in cold rolling the crystal structure was crushed to such an extent that the Debye powder pattern showed only one faint line. The plastic deformation occurred in a thin surface layer, where it accumulated with each pass. An EM-4 electron diffraction camera was used to study

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the samples. These were electrolytically polished (copper by orthophosphoric acid of 1.3 sp. gr., current density 0.65-0.75 a/dm^2, voltage 2V, room temperature, copper anode; iron by 510 ml orthophosphoric acid of 1.7 sp. gr., 32 ml water, 100 g chromium anhydride, current density 40-50 a/dm^2, voltage 15-20V, temperature 70-90, iron anode). They were next cleaned by reducing the voltage, and were washed in methylene alcohol and acetone, then dried in nitrogen. The uppermost surface area in direct contact with the roller would not give a diffraction picture. Removing ~ 50 Å layer produced an electron diffraction pattern with one aureole. Further electrolytic polishing produced 3-4 faint diffuse aureoles. Further layer removal of ~ 1 micron gave a diffraction picture characteristic of a strongly textured metal. It was concluded that in plastic deformation there exists a limit to the practical expansion of a roentgen line. Strong deformation from overall compression can reduce grains to 10^{-7} cm. The crystal size L is given by $L = \frac{0,9 R \lambda}{b \cos \theta}$, where b is the line width, R is the sample-film distance, λ is the wave length, and θ is the Wulff-Bragg angle. The crystal sizes in the thin surface layer were computed to be 10^{-7} cm or smaller. No crystal structure

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"APPROVED FOR RELEASE: 08/10/2001 CIA-RDP86-00513R000617510012-8

ACCESSION NR: AP4033647

was found in the outermost surface layer. Orig. art. has: 2 photographs.

ASSOCIATION: Fiziko-tekhnicheskiy institut AN BSSR (Physicotechnical Institute AN BSSR)

SUBMITTED: 14Jan63

ENCL: 00

SUB CODE: MM

NO REF SOV: 004

OTHER: 000

Card 3/3

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"APPROVED FOR RELEASE: 08/10/2001 CIA-RDP86-00513R000617510012-8

L 43150-66 EWT(m)/T/EWP(t)/ETI/EWP(k) IJP(c) JD/HH

ACC NR: AR6022162 SOURCE CODE: UR/0137/66/000/003/D010/D010

AUTHOR: Severdenko, V. P.; Gurskiy, L. I.

ORG: none

TITLE: Structure of the surface layer in gradual multistage deformation

SOURCE: Ref. zh. Metallurgiya, Abs. 3D69

REF SOURCE: Sb. Metallovedeniye i term. obrabotka met. Minsk, Nauka i tekhnika, 1965, 124-134

TOPIC TAGS: plastic deformation, surface property, multistage deformation, rolling

ABSTRACT: On the basis of an experiment, the authors conclude that in multipass rolling with gradual reduction, the existence of a surface amorphous layer can be explained not only by the extremely fine fragmentation of the crystals in this layer

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Card 1/2

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"APPROVED FOR RELEASE: 08/10/2001 CIA-RDP86-00513R000617510012-8

L 43150-66
ACC NR: AR6022162

but also by the introduction of impurities. A very fine surface layer in fractionated rolling should be interpreted as a finely dispersed or amorphous layer. N. Yudina. [Translation of abstract]

[KP]

SUB CODE: 20/ SUBM DATE: none

Card 2/2 MLP

APPROVED FOR RELEASE: 08/10/2001 CIA-RDP86-00513R000617510012-8"

"APPROVED FOR RELEASE: 08/10/2001 CIA-RDP86-00513R000617510012-8

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SOV/20-129-2-19/66

AUTHORS: Starodubtsev, S. V., Academician, Uzbekskaya SSR, Gurskiy, M. N., Sizykh, A. G.

TITLE: Change of the Optical Properties of Benzene Irradiated by γ-Rays

PERIODICAL: Doklady Akademii nauk SSSR, 1959, Vol. 129, Nr 2, pp 307-309 (USSR)

ABSTRACT: The present paper deals with the investigation of such optical properties of irradiated material which make it possible to determine the accumulation of transformation products. For this purpose the scattering of light, luminescence, rotation of the polarization plane, refractive index, and the molecular absorption spectra of pure benzene were investigated. Benzene was purified by drying over sodium, subsequent fractional distillation and finally by recrystallizing it twice. Co^{60} served as source of γ-radiation. At a high integral irradiation dose ($110 \cdot 10^6$ r) an insoluble yellowish-white precipitate is formed which may be easily separated by centrifugeing. Subsequently the samples were distilled under sealed ampules in vacuum at a temperature of 35 to 40^0. In the heavy fractions a viscous yellow liquid was formed

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56734

Change of the Optical Properties of Benzene Irradiated by γ-Rays SOV/20-129-2-19/66

which is heat resistant. The degree of depolarization decreases with increasing dose of irradiation, viz. due to the increase of the isotropic component of the Rayleigh scattering. The anisotropic component I_x shows only unimportant fluctuations with respect to the isotropic component I_z. This indicates that in the isotropic liquid isotropic inhomogeneities occur. At doses of 5.10^6 r chloroform groups are observed which determine the color of the compound. With increasing dose the purely molecular scattering passes into a scattering of the Tyndall type which is in connection with the occurrence of larger particles of the radiolysis products. The luminescence spectra were recorded by a three-prism spectrograph of the type ISP-51 to determine the spectral composition. A diagram shows the results of the photometric recording which illustrate the dependence of the density D on the wavelength λ. With increasing irradiation dose of benzene the intensity of luminescence increases especially in the red range of the spectrum. The luminescence character of the irradiated samples is confirmed by the complete extinction when small quantities of aniline are added. The effects described here may be explained by the

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65734

Change of the Optical Properties of Benzene Irradiated by γ-Rays SOV/20-129-2-19/66

properties of the large molecules which are formed in the radiolysis from the initial benzene. The rotation of the polarization plane of the irradiated benzene is also of interest. This indicates the occurrence of asymmetric molecules without center and plane of symmetry. These results lead to the following conclusions: (1) The effect of the γ-rays on benzene changes its optical properties which illustrate the dynamics of the radiolysis processes. (2) The change of the character of the inhomogeneities and of their development at increasing dose may be determined by the method of light scattering. (3) The luminescence of the irradiated benzene is shifted into the visible range. There are 2 figures and 5 references, 3 of which are Soviet.

SUBMITTED: July 9, 1959

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"APPROVED FOR RELEASE: 08/10/2001 CIA-RDP86-00513R000617510012-8

S/638/61/001/000/023/056
B104/B138

AUTHORS: Gurskiy, M. N., Sizykh, A. G., Starodubtsev, S. V.

TITLE: Variation in optical properties of γ-irradiated benzene

SOURCE: Tashkentskaya konferentsiya po mirnomy ispol'zovaniyu atomnoy energii. Tashkent, 1959. Trudy, v. 1. Tashkent, 1961, 168 - 171

TEXT: Benzene was purified by drying over sodium, fractionally distilled, and twice recrystallized. Its purity was checked from the optical refractive index (n_D^{20} = 1.5011 ± 0.0001), and then it was poured into glass ampouls and irradiated with a Co^{60} source. Initially colorless, it turns yellow at $5 \cdot 10^6$ r. With higher doses, insoluble yellowy-white precipitates are formed which can be removed by centrifuging. According to I. V. Vereshchinskiy ("Deystviye ioniziruyushchikh izlucheniy na neorganicheskiy i organicheskiy sistemy", AN SSSR, p. 234) and M. Burton (Journ. Am. Chem. Soc., 76, 10, 1954), separation of the benzene end leads to biradicals of the type $R(C_6H_6)_n^R$. Developed chains with conjugated bonds are characteristic of luminescent substances. Irradiated

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benzene luminesces bright green-blue. The luminescence was excited by an Hg lamp with УФС-4 (UFS-4) filter. The initial preparation showed no luminescence in the visible range. Intensity of luminescence increased with the dose increasing from 0.6 to $16 \cdot 10^6$ r. At the same time, maximum intensity shifts to the longwave range. The behavior of irradiated benzene is similar to that of diphenyl polyene. This suggests polymerization during irradiation. There are 2 figures and 7 references: 3 Soviet and 4 non-Soviet. The four references to English-language publications read as follows: Sten G., Weiss J., Journ. Chem. Soc., 3245-3351, 1945; Patrick W. N., Burton M., Journ. Am. Chem. Soc., 76, 10, 1954; Gordon S., Van Dyken A. R., Doumani T. F. Journ. Phys. Chem., 62, 1, 20, 1958; Gibson G. E., Blake N. and Kalm M. Journ. Chem. Phys., 21, 1000, 1953.

ASSOCIATION: Fiziko-tekhnicheskiy institut AN UzSSR (Physicotechnical Institute AS Uzbekskaya SSR)

APPROVED FOR RELEASE: 08/10/2001 CIA-RDP86-00513R000617510012-8"

"APPROVED FOR RELEASE: 08/10/2001 CIA-RDP86-00513R000617510012-8

S/844/62/000/000/129/129
D204/D307

AUTHORS: Starodubtsev, S. V., Gurskiy, M. N. and Sizykh, A. G.

TITLE: Optical-spectroscopic methods for the study of the irradiation of benzene

SOURCE: Trudy II Vsesoyuznogo soveshchaniya po radiatsionnoy khimii. Ed. by L. S. Polak. Moscow, Izd-vo AN SSSR, 1962, 747-750

TEXT: In continuation of earlier work on the radiolysis of benzene (DAN SSSR, 129, 307, (1959)), molecular optics and spectroscopic methods were used to determine the initial stages of the formation of a polymeric product resulting from the irradiation of benzene. The scattered light method was used, measuring the variations in the degree of depolarization (Δ) and in the intensities of the polarized components of scattered light as the dose was increased (γ irradiation, 76 - 543 r/sec). This method proved the most sensitive. For unevacuated samples Δ decreased linearly with increasing dose, from ~0.42 at 0.075 x 10^6 r to 0.25 at ~0.95 x 10^6 r;

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the isotropic component of the scattered light ($I_{isotropic}$) increased, while $I_{anisotropic}$ remained essentially constant. These effects were amplified by freezing the samples immediately after irradiation. The decrease of Δ was less pronounced in degassed samples, showing that a lesser amount of the polymer is precipitated under these conditions. Irradiation of unevacuated samples with ultraviolet (5 1/2 hours) gave results analogous to those of γ irradiation. With higher amounts of the radiolysis products (doses ~10^7 r), the reactions may be followed by spectroscopic methods. Luminescence spectra may be used to detect an increase in the molecular weight, i.e. the formation of the polymeric product when benzene is irradiated. With low dosages of γ rays (3 x 10^5 r) and under UV irradiation over 5 1/2 hours (unevacuated samples only), clearly defined peaks appeared at ~5625 Å. In the case of γ irradiation, the maximum for evacuated samples was less intense. There are 3 figures and 2 tables.

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Optical-spectroscopic methods ... S/844/62/000/000/129/129
D204/D307

ASSOCIATION: Institut yadernoy fiziki AN UzbSSR, Tashkentskiy gosudarstvennyy universitet, kafedra optiki (Institute of Nuclear Physics AS UzSSR, Tashkent State University, Department of Optics)

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L 21352-65 EWA(h)/EWT(m)/T Pb-4 AFWL/SSD/AMD/ABGC(g)/AFTC(b)/IJP(c)
ACCESSION NR: AP5000862 S/0166/64/000/005/0075/0076

AUTHOR: Starodubtsev, S.V.; Gurskiy, M.N.; Tsoy, A.N.

TITLE: A liquid scintillator for measuring the dosage of nuclear radiation absorbed in composite reactor fields

SOURCE: AN UzSSR. Izvestiya. Seriya fiziko-matematicheskikh nauk, no. 5, 1964, 75-76

TOPIC TAGS: radiation dosimetry, radiation chemistry, liquid scintillator, terphenyl, chemical dosimetry, gamma radiation, neutron detector

ABSTRACT: Ionization chembers and scintillation detectors are used to detect ionizing radiation; however, chemical dosimeters permit the measurement of large doses of radiation. Some of the well-known reactions of radiation chemistry can be used for dosimetry. In the present paper, the authors investigate the possibility of detecting radiochemical changes by means of scintillation radiometry. p-Terphenyl was chosen as best fulfilling the conditions necessary for the detection of mixed gamma-neutron radiation. Determination of the absorbed dosage was accomplished by measuring the light output of the exposed sample in toluene. The scintillation apparatus consisted of a model FEU-29 photoelectric multiplier supplied by a model VS-16 high-voltage stabilizer. The output of the FEU-29 went to a wide-band amplifier model USh-2. p-Terphenyl samples were

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ACCESSION NR: AP5000862

irradiated with gamma-rays alone and with mixed gamma-neutron radiation. The light output of gamma-irradiated p-terphenyl was found to be constant in the range of absorbed dosage from 6 x 106 to 2 x 10^8 rad. In the mixed gamma-neutron radiation of a reactor, there was a linear decrease in the light output in the same interval. (see Fig. 1 of the Enclosure.) The authors determined that about 55% of the total absorbed energy was from fast neutrons. The system described is considered to be suitable for use as a dosimeter for the mixed radiation from a nuclear reactor. Orig. art. has: 2 figures.

ASSOCIATION: Institut yadernoy fiziki AN UzSSR (Nuclear Physics Institute, AN Uz SSR)

SUBMITTED: 20Jun64 ENCL: 01 SUB CODE: NP

NO REF SOV: 002 OTHER: 002

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L 21352-65
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ENCLOSURE: 01

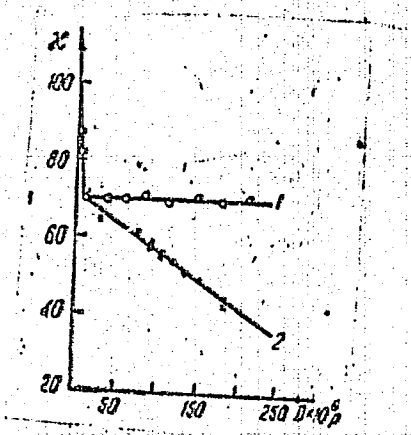

Fig. 1. Variation in the light output of p-terphenyl, irradiated with gamma rays (1), and by the mixed gamma-neutron field of a reactor (2) in toluene as a function of the absorbed dose.

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L 22632-65 EWG(j)/EWA(h)/EWT(m)/EWP(j)/T/EWA(1) Pc-4/Peb IJP(c) RM
ACCESSION NR: AP5003315 S/0166/64/000/006/0083/0084

AUTHOR: Starodubtsev, S. V.; Gurskiy, M. N.; Tsoy, A. N.

TITLE: Dosimetry of large gamma-ray doses on the basis of a liquid scintillator

SOURCE: AN UzSSR. Izvestiya. Seriya fiziko-matematicheskikh nauk, no. 6, 1964, 83-84

TOPIC TAGS: gamma-ray dosimetry, liquid scintillator, benzene, terphenyl

ABSTRACT: The authors investigated the performance of a liquid scintillator consisting of p-terphenyl in benzene, and found that when this scintillator is exposed to gamma rays its light yield decreases in proportion to the absorbed dose. The authors propose on the basis of this result the construction of a dosimeter using 40 cc of distilled benzene in glass ampoules, exposed to gamma rays from Co^{60} with a dose rate of 150 rad/sec, and then used as a solvent for p-terphenyl (5 g/liter). The absorbed dose is determined from the decrease in the light yield, using standard scintillation apparatus. This dosimeter has low sensitivity to changes in the activator concentration over a wide range of concentrations.

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