L 24526-65 EWT(d)/EWT(m)/EWP(c)/EWA(d)/EWP(v)/EPR/T/EWP(t)/EWP(k)/EWP(b)/EWP(l)
Pf-4/Ps-4 IJP(c)/ASD(m)-3/AFETR JD/HM/HW
AM4045982 BOOK EXPLOITATION

S 84/

Gubin, A. I., Kitayev, A. M.

Welding and soldering thin-walled pipelines (Svarka i payka tonkostennykh truboprovodov) Moscow, Izd-vo Mashinostroyeniye, 1964. 110 p. illus. 8050 copies printed. Publishing house editor: L. I. Kovalenko; Technical editor: A. Ya. Novik; Reviewer: Engineer A. S. Chudov; Editor: Engineer V. S. Chernyak.

TOPIC TAGS: welding, soldering, thin walled pipe, bending, quality control, anticorrosion treatment, stainless steel pipe, low carbon steel pipe, titanium pipe, aluminum alloy pipe, nickel plating, parkerizing, flaw detection.

PURPOSE AND COVERAGE: This book is intended for designers and technicians in the aviation, automobile, tractor, chemical, food-processing, and other branches of machine building. The techniques of bending, welding, soldering, anticorrosion treatment, installation, and quality control of thin-walled piping of different specifications made of stainless and low-carbon steels, titanium, aluminum, copper, and brass are described. Information is presented concerning solders

Card 1/4

and fluxes and also concerning the addition materials and inert gases utilized in welding and soldering ducts with a gas torch and with high-frequency current. The causes of the formation of defects are analyzed, as well as methods of prevention. Recommendations are presented concerning the design of welded and soldered joints in ducting. Information is given concerning the strength of ducts under static and dynamic loading.

TABLE OF CONTENTS:

L 24526-65
AM4045982

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L 24526-65
AM4045982

SUB CODE: IE, MM SUBMITTED: 26Mar64 NR REF SOV: 008

OTHER: 002 DATE:

Card 4/4

L 31824-65 EWT(m)/EWA(d)/EWP(w)/T/EWP(t)/EWP(k)/EWP(b) Pf-4 JD/HM

ACCESSION NR AM5002721 BOOK EXPLOITATION S/

Gubin, Aleksandr Ivanovich

Soldering stainless steel and heat-resistant alloys (Payka nerzhaveyushchikh staley i zharoprochnykh splavov), Moscow, Izd-vo "Mashinostroyeniye", 1964, 127 p. illus., 5,000 copies printed.

TOPIC TAGS: soldering, soldering flux, stainless steel, heat resistant alloy

PURPOSE AND COVERAGE: This booklet discusses domestic and foreign experience in the soldering of stainless steels and heat-resistant alloys. Basic information is included on the design and strength of soldered joints and methods of preparing parts for soldering. The most common solders, fluxes, and controlled atmospheres are described and their areas of application are pointed out. Various soldering methods and defects in soldered joints and methods of preventing them are discussed; the basic safety rules in soldering and prepering solders are included. The book is intended for designers and engineers in various branches of machine building who encounter in their work problems of soldering stainless steels and heat-resistant alloys.

TABLE OF CONTENTS [abridged]:

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L 31824-65

ACCESSION NR AM5002721

SUBMITTED: 25Jul64 SUB CODE: MM

NO REF SOV: 033 OTHER: 015

Card 2/2

GUBIN, A.I., kand. tekhn. nauk

Some remarks related to the discussion on the quality of brazing operation. Svar. proizv. no.8:42-43 Ag '65. (MIRA 18:8)

L 3180-66 EPA(s)-2/EWT(m)/EWP(v)/T/EWP(t)/EWP(k)/EWP(b)/EWA(h)/EWA(c) IJP(c)
ACCESSION NR: AP5015547 JD/HM UR/0286/65/000/008/0086/0086

AUTHORS: Gubin, A. I.; Katsman, B. O.; Reznik, N. P.; Zhukovskaya, Ye. A.; Shitikova, V. I.

TITLE: A solder for soldering. Class 49, No. 170268

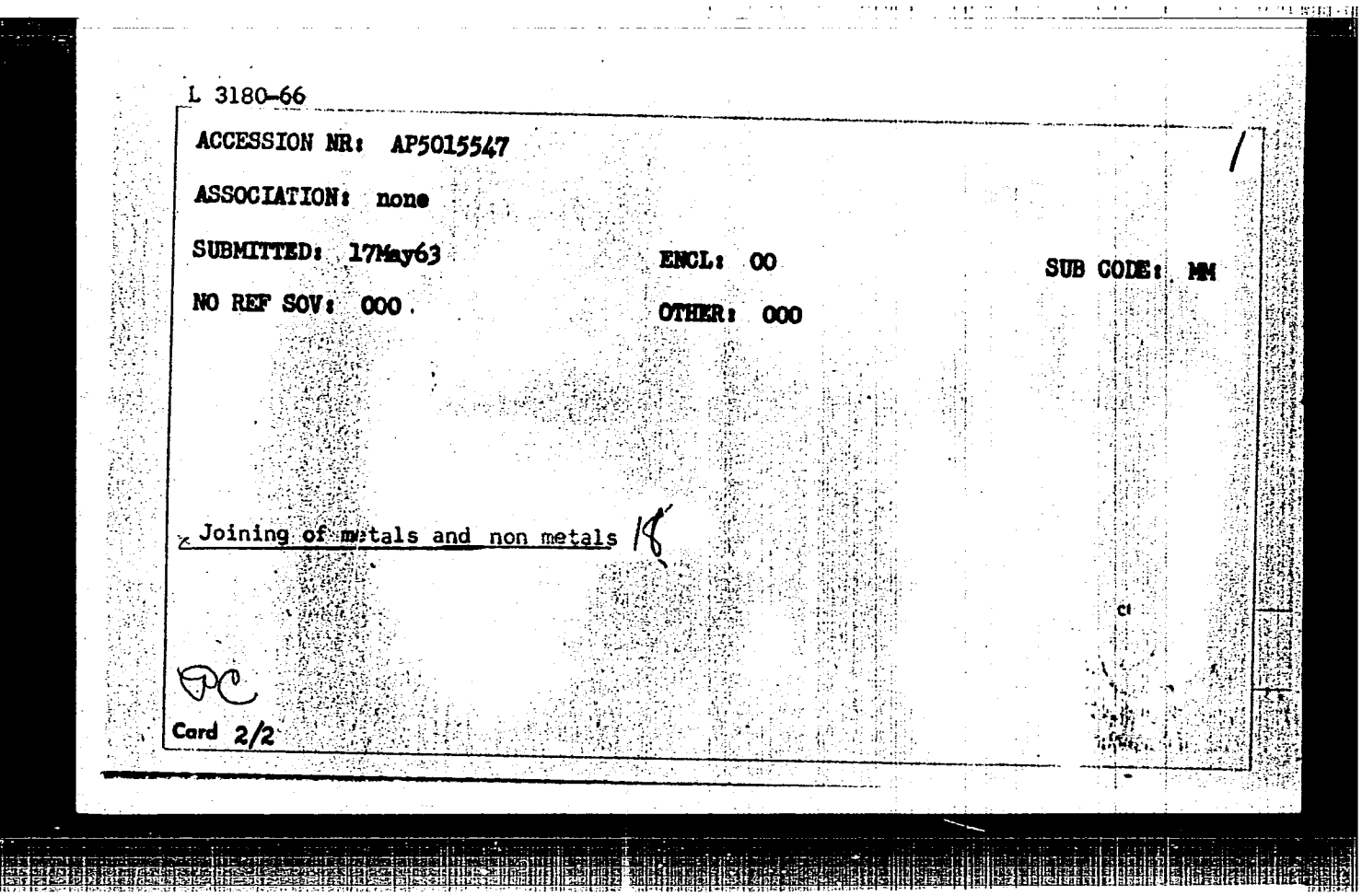
SOURCE: Byulleten' izobreteniy i tovarnykh znakov, no. 8, 1965, 86

TOPIC TAGS: solder, soldering, silver, tin, copper, antimony, lead, phosphorus

ABSTRACT: This Author Certificate presents a solder for soldering electric conductors with silver-silicate strips, containing tin, lead, antimony, and copper. To diminish the dissolution of silver in the silver-silicate strips and to strengthen the connection, 5% of silver and 0.1% of phosphorus are introduced into the solder, while its other components are held at the following percent composition:

tin	40.0
copper	5.0
antimony	1.5
lead	remainder.

Card 1/2



L 3180-66

ACCESSION NR: AP5015547

ASSOCIATION: none

SUBMITTED: 17May63 ENCL: 00 SUB CODE: MM

NO REF SOV: 000 OTHER: 000

Joining of metals and non metals

Card 2/2

L 43971-66 EWP(e)/EWT(m)/EWP(v)/T/ETI/EWP(...)

ACC NR: AP6027444 SOURCE CODE: UR/0135/66/000/008/0025/0027

AUTHOR: Gubin, A. I. (Candidate of technical sciences); Dobkina, Ye. N. (Engineer)

ORG: none

TITLE: Self-fluxing brazing alloys for stainless steels and heat-resistant alloys

SOURCE: Svarochnoye proizvodstvo, no. 8, 1966, 25-27

TOPIC TAGS: stainless steel, heat resistant alloy, ~~stainless steel brazing, heat resistant alloy~~ brazing, brazing alloy, ~~self fluxing brazing alloy~~/VPr-4 brazing alloy, VPr-7 brazing alloy, 45-a brazing alloy, 1KhN9T steel, EI 437 alloy

steel, alloy, metal brazing

ABSTRACT: Brazing of stainless steels and heat-resistant alloys with self-fluxing brazing alloys offers numerous advantages. These alloys contain elements with a high affinity with oxygen, such as boron, silicon and lithium, which reduce oxides of brazed metal components or form low-melting compounds with these oxides. On the basis of experiments, a new self-fluxing brazing alloy VPr-4 has been developed (Author Certificate No. 126730). This alloy can be successfully used for high-frequency brazing of stainless steels without any flux and shielding atmosphere. It melts at 940—980C. In the as-cast condition, it has a tensile strength of 69—76 kg/mm^2, an elongation of 9—13%, and a density of 8.03 g/cm^3. The shear strength of 1Kh18N9T steel joints brazed with VPr-4 alloy is 45-52, 33-40, 29-33, 26-31, 25-28 and 13-18 kg/mm^2 at -60, 20, 200, 400, 500 and 600C, respectively. Two other self-fluxing

Card 1/2 UDC: 621.791.3:669.15-194

ACC NR: AP6027444

brazing alloys, VPr-7 and 45-a, have also been developed. Brazing can be done in a protective atmosphere such as argon, helium and nitrogen or in a 10^{-1} mm Hg vacuum. Orig. art. has: 4 figures and 2 tables. [ND]

SUB CODE: 13, 11/ SUBM DATE: none/ ORIG REF: 002/ OTH REF: 001/ ATD PRESS: 5060

Card 2/2

ACC NR: AP6021826 (A) SOURCE CODE: UR/0413/66/000/012/0135/0135

INVENTORS: Gubin, A. I.; Dobkina, Ye. N.; Smirnova, Yu. A.

ORG: none

TITLE: A solder for soldering of products. Class 49, No. 183037

SOURCE: Izobreteniya, promyshlennyye obraztsy, tovarnyye znaki, no. 12, 1966, 135

TOPIC TAGS: solder, soldering, tin, antimony, copper, silver

ABSTRACT: This Author Certificate presents a solder containing tin, antimony, copper, and silver for soldering products. To obtain soldered joints resisting corrosion at all climatic conditions, the composition is taken in the following percent relation: antimony 1 ± 0.3; copper 2 ± 0.3; silver 5 ± 0.3; tin—the remainder.

SUB CODE: 13/ SUBM DATE: 08Jun64

Card 1/1 UDC: 621.791.35

GUBIN, A. F.

Nakatyvanie rez'by rolikami: Sverdlovsk, Mashgiz, 1947. 133 p. diagrs. Bibliography: p. (132)

Thread-rolling.

DLC: TJ1222.G85

SO: Manufacturing and Mechanical Engineering in the Soviet Union, Library of Congress, 1953.

ZAMURIY, I. R. and GUBIN, A. P., Cand. of Vet. Sci.
All-Union Inst. of Experimental Veterinary Medicine
"New antigen for RSK (Complement Fixation Reaction) in diagnosis of brucellosis."
SO: Vet. 27 (4) 1950, p. 50

1. GUBIN A. P.

2. USSR (600)

4. Strangles

7. Testing the therapeutic effect of ASD (Dorogov's active stimulant) in strangles. Trudy Vses. inst. eksp. vet. no 1: '52.

9. Montly List of Russian Accessions, Library of Congress, Feb. 1953. Unclassifiedl

1. GUBIN, A. P.: PODDUBSKIY, I. V., Prof., YASHENKINA, M. I.

2. USSR (600)

4. Horses - Diseases

7. Allo-biophoric method in the diagnosis of infectious anemia of horses. Trudy Vses.inst.edsp.vet. 19 no. 1 1952

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

GUBIN, A.P., kand.vet.nauk; SHABUROV, M.S., kand.vet.nauk

Problem of contact infection of horses with infectious anemia.
Veterinariia 36 no.2:38-40 F '59. (MIRA 12:2)
(Infectious anemia)

GUBIN, A.P., kand.veterin.nauk; SHABUROV, M.S., kand.veterin.nauk

Virulent properties of dry virus of infectious anemia of horses. Veterinariia 36 no.10:28-30 O '59. (MIRA 13:1)

1. Vsesoyuznyy institut eksperimental'noy veterinarii (VIEV).
(Infectious anemia) (Viruses)

L 8525-65 EWP(m)/EWP(q)/EWP(r)/EWP(b) ASD(f)/AFETR/AFWL/SSD HJW/JD

ACCESSION NR: AP4046473 S/0032/64/030/010/1254/1255

AUTHORS: Balandin, Yu. F.; Gubin, A. V. B

TITLE: Testing on thermal fatigue with supplementary mechanical loading action

SOURCE: Zavodskaya laboratoriya, v. 30, no. 10, 1964, 1254-1255

TOPIC TAGS: thermal stress, mechanical stress, material testing/ 1Kh18N9T steel

ABSTRACT: The authors described a method of materials testing using compatible mechanical loading and thermal cyclic stress. The testing device is based upon the apparatus designed by L. Coffin and R. Wesley (Trans. ASME, v. 76, No. 6, p. 923, 1954) for thermal fatigue testing with periodic heating and cooling. A schematic view of the apparatus is shown in Fig. 1 on the Enclosure. Tangential stress in the tube is determined by $\sigma = p\frac{R^2+r^2}{R^2-r^2}$.

where p is the internal pressure, R is the outer tube radius, and r is the inner tube radius. Internal pressure on the specimen creates a constantly applied mechanical stress, and cyclic thermal deformation is caused by alternate heating by electric current and air-cooling. The magnitude of full deformation through one cycle is approximated by $\alpha \Delta T$, where α is the mean coefficient of linear expansion and ΔT is the minimum-to-maximum temperature change; allowance is made for uneven

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L 8525-65
ACCESSION NR: AP4046473

temperature distribution along the specimen length. Tests were conducted to determine resistance to thermal fatigue of 1Kh18N9T steel under supplementary mechanical loading. Results are presented in a plot with the number of cycles until destruction versus stress from internal pressure as axes; results indicate that the supplementary mechanical loading does not noticeably influence the resistance to thermal fatigue. Orig. art. has: 2 figures and 1 formula.

ASSOCIATION: none

SUBMITTED: 00 ENCL: 01

SUB CODE: MM NO REF SOV: 001 OTHER: 001

Card 2/3

L 8525-65
ACCESSION NR: AP4046473

ENCLOSURE: 01

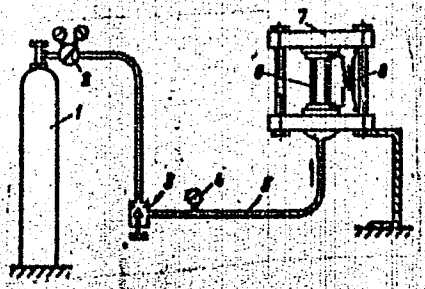

Fig. 1. Scheme of apparatus for testing tubular specimens for thermal fatigue with simultaneous mechanical loading.
1 - compressed air bottle; 2 - reduction valve; 3 - stopcock; 4 - manometer; 5 - air hose; 6 - specimen; 7 - rigid frame; 8 - transformer for specimen heating.

Card 3/3

GUBIN, B.V.

Hidden potentialities for reducing overhead expenses in construction. Fin.SSSR 17 no.3:57-62 Mr '56. (MLRA 9:7)
(Construction industry--Finance)

BANKOVSKIY KONTROL' NA SVOYEVREMENNOST' I SNIZHENIYEM SEBESTOIMOSTI STROITEL'NYKH RABOT
/BANKING CONTROL OVER REDUCTION OF COSTS OF CONSTRUCTION WORK/ MOSKVA,
GOSFINIZDAT, 1957

71 p. TABLES. AT HEAD OF TITLE: MOSKOVSKIY MASHINOSTROITEL'NYY FINANSOVYY INSTITUT

GUBIN, B.V., red.; RYUMIN, S.M., red.

[Problems in economizing materials in construction work] Voprosy ekonomii materialov v stroitel'stve; sbornik. Moskva, Gosfinizdat, 1958. 170 p. (MIRA 13:8)

1. Moscow. Nauchno-issledovatel'skiy finansovyy institut.
(Construction industry--Costs)

GUBIN, B.; TIMOSHENKO, I.; ZAYDMAN, L.

Indices of industrial production costs. Fin. SSSR 21 no.11:52-58 N '60. (MIRA 13:11)

1. Nachal'nik finansovogo otdela Moldavskogo sovnarkhoza (for Timoshenko).
2. Zamestitel' nachal'nika finansovogo otdela Moldavskogo sovnarkhoza (for Zaydman).

(Costs, Industrial)

ARTEMOV, Yu.M., kand. ekonom. nauk; GAL'PERIN, N.S., kand. ekon. nauk; GUBIN, B.V., kand. ekon. nauk; ZHUKOV, V.N., kand. ekon. nauk; OCHKOV, M.S. kand. ekon. nauk; OSKORDOV, V.P., starshiy ekonomist; BARNGOL'STS, S.B., dotsent, kand. ekon. nauk; SIBIRYAKOV, L.Ye.; IVANOV, N.N.; RABINOVICH, M.A., ekspert; LIPSITS, V.B., kand. ekon. nauk; VOLKOV, S.I., kand. ekon. nauk; KOROLEVA, Ye.P., aspirantka; RYUMIN, S.M., red.; SUBBOTINA, K., red.; TELEGINA, T., tekhn. red.

[Planning and calculating the cost of industrial production] Voprosy planirovaniia i kal'kulirovaniia sebestoimosti promyshlennoi produktsii. Moskva, Gosfinizdat, 1961. 183 p. (MIRA 14:8)

1. Moscow. Nauchno-issledovatel'skiy finansovyy institut. 2. Sotrudniki Nauchno-issledovatel'skogo finansovogo instituta (for Artemov, Gal'perin, Gubin, Zhukov, Ochkov, Oskordov). 3. Vsesoyuznyy zaochnyy finansovo-ekonom. institut (for Barngol'ts). 4. Glavnyy bukhgalter Moskovskogo elektrozavoda (for Sibiryakov). 5. Starshiy konsul'tant Upravleniya bukhgalterskogo ucheta Ministerstva finansov SSSR (for Ivanov, Rabinovich). 6. Nachal'nik podotdela obshchikh ekonomicheskikh voprosov tsenoobrazovaniya Byuro tsen pri Gosplane SSSR (Lipsits). 7. Moskovskiy ekonomiko-statisticheskiy institut (for Koroleva)

(Costs, Industrial)

GUBIN, B.

Index of industrial production costs. Vop. ekon. no.3:91-96 Mr '61. (MIRA 14:3)
(Costs, Industrial)
(Index numbers (Economics))

USATOV, I.A., kand. ekon. nauk; GUBIN, B.V., kand. ekon. nauk; SMIRNOV, A.D., dots.; LAPTEV, Ye.N.; MOZHIN, V.P., kand.ekon.nauk; GUMEROV, R.M.; KORYUNOV, S.N.; PSHENICHNYY, P.P.; NYAKOV, N.M.; FILATOV, N.L.; FILIPPOVA, E., red. izd-va; LEBEDEV, A., tekhn. red.

[Economics and finance of socialist enterprises]Ekonomika i finansy sotsialisticheskikh predpriiatii. Moskva, Gosfinizdat, 1962. 404 p. (MIRA 15:9)
(Industrial management) (Finance)

GUBIN, Boris Vasil'yevich; SMIRNOV, Aleksandr Dmitriyevich; USATOV, Ivan Andreyevich; GOLUBNICHIY I., red.; VORONINA, R., tekhn. red.

[Principles of socialist management in industry] Osnovy sotsialisticheskogo khoziaistvovaniia v promyshlennosti. Moskva, Vysshaia shkola, 1963. 226 p. (MIRA 17:3)

PHASE I BOOK EXPLOITATION SOV/4042

Leningrad. Universitet

Polyarizatsionno-opticheskiy metod issledovaniya napryazheniy; trudy konferentsii 13-21 fevralya 1958 goda (Optical Polarization Method for Stress Analysis; Transactions of the Conference of February 13-21, 1958). [Leningrad] Izd-vo Leningradskogo univ., 1960. 451 p. Errata slip inserted. 2,400 copies printed.

Resp. Ed.: S.P. Shikhobalov; Ed.: Ye.V. Shchemeleva; Tech. Ed.: S.D. Vodolagina; Editorial Board: S.G. Gutman, L.M. Kachanov, V.N. Krasnov, T.D. Maksutova, N.I. Prigorovskiy, V.M. Proskko, N.S. Rozanov, and Ye.I. Edel'shteyn.

PURPOSE: This collection of 58 articles is intended for scientists and engineers concerned with experimental stress analysis of machine parts and structural components.

COVERAGE: The collection contains reports presented at the conference on optical polarization methods in stress analysis held February 13 - 21, 1958, in Leningrad and attended by 324 delegates including representatives of the People's Republic of China, the Polish People's Republic, the German Democratic Republic, and the Republic of Czechoslovakia. The reports discuss general theoretical

problems and new methods of investigation and describe apparatus and materials used in the optical method. Solutions of specific two-dimensional and three-dimensional problems occurring in shipbuilding, aircraft design, engine construction, in various branches of heavy and precision machine design, in mining, metallurgy, hydraulic structures, railroad transport, in structural mechanics, geodynamics, in the control of stresses in products of the glass and electronic industry, etc., are given. Solution of the three-dimensional problem by means of the method of photoelasticity is introduced and the use of this method for the solution of problems associated with plasticity, creep, dynamics, hydrodynamics, etc., is demonstrated. Reports previously published elsewhere are printed here in abbreviated form. No personalities are mentioned. References are found at the end of 47 of the reports.

Optical Polarization Method (Cont.) SOV/4042

Card 10/12

GUBIN, F. A.

Results of the hydrochemical investigation carried out in the Black Sea. B. A. Skopintsev and F. A. Gubin. *Trudy Morskogo Gidrofiz. Inst., Akad. Nauk S.S.S.R. Sbornik Statei* 5, 71-98(1955).—Several detns. of either H_2S or O of the same sample are nearly identical. Results may vary for H_2S when samples are obtained at different periods although from the same depth. The distribution of H_2S and O through the same stratum is not uniform owing to vertical movements of the water. The av. H_2S content and the coeff. of deviation obtained in 1953 are reasonably close to the same values obtained in 1951 and 1924-7. Below 300 m. a close correlation exists between the amts. of H_2S and the salts. Apparently both are the results of the same process. H_2S is mainly formed at the bottom, but some formation takes place in the water above 300 m. Out of 74 examd. samples taken from various depths, only 77% contained sulfites and thiosulfites. In most cases the amt. did not exceed 1.10 mg./1000 cc. Only 4 samples contained 1.60-2.30 mg./1000 cc. The bulk of the salts consists of thiosulfates. No downward increase in the amts. of the salts was found. They form only a few % of the total sum of S-bearing compds. The sulfites increase down to 750-1000 m. Below this depth decreased amts. were found in the majority of cases. The sulfate-chloride coeff. values reach their max. in the upper stratum. They are larger than the corresponding values of the ocean owing to the higher Cl coeff. of the upper waters of the Black Sea. The values decline gradually with depth. They are const. at 100-200 m. and then decline again, reaching their lowest close to the bottom. The theoretical amt. of H_2S calcd. on the basis of the sulfates of the near bottom-strata and those swept in by the Bosphorus is somewhat larger than the actual amt. The difference is most probably due to the need of bacteria and interaction between S and Fe compds.

A. S. Mikhin

SKOPINTSEV, B.A.; GUBIN, F.A.

Sulfates in the Black Sea water. Gidrokhim. mat. 25:16-27 '55.
(MLRA 9:6)

1.Morskoy gidrofizicheskiy institut Akademii nauk SSSR.
(Black Sea--Sulfates)

GUBIN, F.A.

3(7) PHASE I BOOK EXPLOITATION SOV/2131

Akademiya nauk SSSR. Morskoy gidrofizicheskiy institut

Teplovoy rezim, khimiya morya (Thermal Regime of the Sea. Chemistry of the Sea) Moscow, AN SSSR, 1958. 145 p. (Series: Its: Trudy, tom 13) Errata slip inserted. 1,300 copies printed.

Resp. Ed.: A.S. Kolesnikov, Doctor of Physical and Mathematical Sciences; Ed. of Publishing House: L.K. Nikolayeva; Tech. Ed.: N.P. Yegorova.

PURPOSE: This collection of articles is intended for geophysicists, hydrophysicists, and oceanographers.

COVERAGE: These articles deal with problems in the physics and chemistry of sea water. Individual papers treat the turbulent thermal conductivity and heat exchange in sea water, the pulsations in air temperature, the salinity of the Black Sea, the determination of calcium, magnesium, and copper in sea water, and the determination of sodium in atmospheric precipitates. Figures, tables, and graphs accompany the articles. There are 121 references: 92 Soviet, 18 English, 8 German, 2 French, and 1 Swedish.

AVAILABLE: Library of Congress

20-119-1-33/52

AUTHORS: Skopintsev, B. A., Gubin, F. A., Vorob'yeva, R. V., Vershinina, O. A.

TITLE: The Composition of the Salts of the Chernoye Sea (Black Sea) (Solevoy sostav vody Chernogo morya)

PERIODICAL: Doklady Akademii Nauk SSSR, 1958, Vol. 119, Nr 1, pp. 121-124 (USSR)

ABSTRACT: In October 1954 and in June 1955 water samples were taken at 5 points from all depths in the open part of the sea near the 43th degree north latitude. The chlorine content was determined argentometrically, the alkalinity by direct titration with HCl, the sulfates by the weight method and Ca as well as Mg complexometrically. Table 1 gives the average quantities of this determination. The highest content deviations of individual components at the same depths of all 5 places from the average attained 4%, which was characteristic of the upper layer (0-150 m). Farther down the deviations are less than 1%, except Ca and alkalinity. The absolute content of all salt components in the Chernoye Sea (Black Sea) is smaller than in the ocean, except the alkalinity. The chlorine content increases from the surface to the bottom. The change

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of other ions at the vertical is represented in table 2 as ratio to the chlorine content. In this manner the contents are compared with those of the oceans, where the latter are constant (ref. 1). The elevated values of the cited coefficients in the upper 200 m of the Chernoye Sea can be explained by a comparatively higher influence of the waters of the flow of the rivers for the higher values of these coefficients than they are characteristic for the ocean. The changes of the ratios $\frac{SO_4}{Cl\ (‰)}$ and $\frac{HCO_3}{Cl\ (‰)}$ are connected with the biochemical and biological processes occurring in the Chernoye Sea: a) the reduction of SO_4^{2-} at the bottom of the sea with a simultaneous formation of hydrogen sulfide and HCO_3^-, b) the oxidation of H_2S in an intermediary zone (from 125-150 m to 250-300 m) under formation of sulfates and a corresponding decrease in HCO_3^- (ref. 2). A marked change of Ca^{2+} in the water near the bottom was not observed. Table 3 gives the calculated average composition of the water in the Chernoye Sea. Little difference in comparison with reference 4 is to

be found. At a depth of 150 m from the bottom the salt content is close to the average content of ocean water (ref. 1). Further the salt content in the Chernoye Sea at a depth of 0,150 and 2000 m was calculated. According to the modern conception of the water balance of the Chernoye Sea 400 km^2 water annually run out through the Bosfor (Bosporus). The river-flow into the sea is 350 km^2. From this the average quantity of salt is calculated which is brought out through the Bosfor (Bosporus) and which is brought in with the rivers. As the salt balance of the Chernoye Sea is balanced, the difference resulting from the above-mentioned components represents that quantity of salt which annualy runs into the Chernoye Sea from the Mramornoye (Marmara) Sea. The waters coming in this way amount to $\sim$195 km^3. In order to maintain equilibrium concentrations of Ca^{2+} and HCO_3^- in the Chernoye Sea, 12 or 85 km^3 respectively less of water from the Mramornoye Sea is needed. The quantity of $CaCO_3$ corresponding to the above-mentioned quantities of the Marmara-water will evidently be precipitated from the water of the Chernoye Sea. For Ca^{2+} they represent $5,4.10^6$ tons or about $\sim$30% of the

The Composition of the Salts of the Chernoye Sea (Black Sea) 20-119-1-33/52

Ca^{2+} annualy brought into the Chernoye Sea by the rivers. Such a chemogeneous carbonate-sedimentation mainly takes place in the region near the coast (references 3,5). Then the authors discuss the statements of reference 8 and state that for the displacement of a water layer of 17 m thickness about 130 years would be necessary, which disproves the above-mentioned statements. There are 3 tables and 8 references, 8 of which are Soviet.

ASSOCIATION: Morskoy gidrofizicheskiy institut Akademii nauk SSSR (Marine Hydrophysical Institute AS USSR)

PRESENTED: July 13, 1957, by N. M. Strakhov, Member, Academy of Sciences, USSR

SUBMITTED: May 12, 1957

Card 4/4

IVANENKOV, V.N.; GUBIN, F.A.

Water masses and hydrochemistry in the western and southern parts of the Indian Ocean. Trudy MGI 22:33-115 '60. (MIRA 14:3)
(Indian Ocean--Sea water--Composition)

GUBIN, F. F. Prof., and AYVAZ'YAN, V. G. Dr. Tekh. Sci.

Studies

"Report on the Technico-Economic [redacted] in Hydropower Construction Projects," abstracted in Gidrotekh. stroi., Nos. 5/6, pp. 28-29, 1946.

Glavgidroenergstroy

GUBIN, F.F.; KRIVCHENKO, G.I., kandidat tekhnicheskikh nauk, redaktor; CHAROV, A.D., tekhnicheskiy redaktor.

[Collection of designs of hydroelectric power stations] Atlas gidroelektricheskikh stantsii. Moskva, Gos.energ.izd-vo 1948. 60 plans (in portfolio). Supplement - [Explanatory note] Poiasnitel'naia zapiska. 53 p. (MLRA 8:4)

(Hydroelectric power stations)

Gubin, Fedor Fedorovich. Gidroelektricheskie stantsii. [Izd. 3, ... ispr. i perer.] Dopushcheno v kachestve uchebnogo posobiia dlia ... elektrotekhnicheskikh i gidrotekhnicheskikh institutov i fakul'tetov. Moskva, Gos. energ. izd-vo 1949. 752 p.

Bibliography: p. 747-748.

LC: TK1081.G8 1949

SO: LC, Soviet Geography, Part I, 1951, uncl.

GUBIN, F. F., Professor — Doc Tech Sci

Dissertation: "Hydroelectric Power Stations." 28/3/50

Moscow Order of the Labor Red Banner Engineering Construction Inst imeni V. V. Kuybyshev

SO Vecheryaya Moskva
Sum 71

GUBIN, F. F.

Feb 52

USSR/Geophysics - Hydroelectric Dams

"The Most Modern Hydroelectric Power Plants," Prof F. F. Gubin, Dr Tech Sci and Stalin Prize Winner

Priroda,, No 2, pp 9-11

States that present large-scale Soviet hydroelectric plants (on the Volga, Oka, Dnepr, etc.) were constructed by engineers trained by Acad B. Ye. Vedeneyev, G. O. Graftio, A. V. Vinter, S. Ya. Zhuk (Stalin Prize winner), Dr Tech Sci V. D. Zhurin, and others. Remarks that the efficiency of the turbines is 90-92% and that of generators is 96-97%.

263T94

GUBIN, F.F., doktor tekhnicheskikh nauk, professor, laureat Stalinskoy premii.

On-the-spot account of the building of the Mingechaur Hydroelectric Power Station. Nauka i zhizn' 20 no.6:5-7 Je '53. (MLRA 6:6)
(Mingechaur Hydroelectric Power Station) (Hydroelectric power stations)

DZHUNKOVSKIY, N.N., professor, doktor tekhnicheskikh nauk; BLIZNYAK, Ye.V., professor; GUBIN, F.F., professor; ABRAMOV, N.N. professor ROZANOV, N.P., VOROTOV, P.A., BORODIN, P.V., POSLEDOV, M.A. YURKVICH, D.P., PERSON, M.N., tekhnicheskiy redaktor.

[Introduction to hydraulic engineering] Vvedenie v gidrotekhniku. Moskva, Gos.izd-vo lit-ry po stroit. i arkhit. 1955. 301 p. (Hydraulic engineering) (MLRA 8:8)

GUBIN, F.F., prof., doktor tekhn.nauk

Foreword. Trudy MISI no.16:3-7 '56. (MIRA 11:8)

1.Zaveduyushchiy kafedry ispol'zovaniya vodnoy energii Moskovskogo inzhenerno-stroitel'nogo instituta im. V.V. Kuybysheva.
(Hydroelectric power stations)

GUBIN, F., doktor tekhnicheskikh nauk, professor.

How a hydroelectric power station is built. Stroitel' no.2 26-28 F '57. (MLRA 10:3)
(Hydroelectric power stations)

Gubin, F.F.

98-1-7/20

AUTHORS: Gubin, F.F., Prigorovskiy, N.I., Doctors of Technical Sciences, Professors and Khesin, G.L., Engineer

TITLE: Investigations of a Built-in Hydroelectric Power Plant With a High Massive Dam (Issledovaniya vstroyennogo varianta gidroelektrostantsii s vysokoy massivnoy plotinoy)

PERIODICAL: Gidrotechnicheskoye Stroitel'stvo, 1958, # 1, pp 29-36 (USSR)

ABSTRACT: Tensions occuring within the structure of built-in type hydro-electric power plants during the periods of construction and operation are influenced by several factors, of which the most essential are the pressure of the water from the head water and the weight of the installation itself. The strains which might occur at various transverse profiles in the design of the Bratsk Hydroelectric Power Plant were examined in detail for the preparation of the technical project. As a result of these studies a profile was developed for future projects which showed a more favorable distribution of stress than previous designs. The article deals with the methods of research

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Investigations of a Built-in Hydroelectric Power Plant With a High Massive Dam

and the results obtained. Investigations were facilitated and analyses were simplified by making pressure measurements of weight and hydrostatic pressure separately. The authors present several formulas of the effects produced by pressure from the outside and by the weight of the installation. Experiments were conducted on flexible models which were subjected to strains up to the limits of elasticity. To insure reliability of results, the following two types of three-dimensional and flat models were used: 1) Tensometric models consisting of materials with a low modulus of longitudinal elasticity (organic glass, neoleucorite). 2) Optical models of transparent, optically active materials.

The deformations were measured by means of stress transducers with 10, 5 and 3 mm basis, glued onto the surface of the model or placed inside the model. The errors at measuring the deformation of the attached stress transducer by means of the electronic device "ИСД-2 ИМАШ " do not exceed 2 - 4%. The authors present several formulas by which the tension inside the models given by the stress transducer can

Investigations of a Built-in Hydroelectric Power Plant With a High Massive Dam

be computed. By using the data obtained from the inside loads, the hydrostatic pressure at different water levels of the reservoir can be established. The testing of tensometric models under realistic load conditions was carried out by a centrifugal machine of 2.6 m in diameter and by means of applying several concentrated loads to the gravity centers of the volumes of the model. New methods were made possible by using new "optically" active materials: styrene alkyd resin (material МИХМ-ИМАШ) and epoxymal (with resin ЭД-6 or Э-40). Special research, conducted with the Candidate of Technical Sciences N.A. Shchegolevskiy, showed the feasibility of producing optically active materials based on epoxy-type resin and "inoculated" polymers with a broad range of elasticity moduli. The separation of main stresses within the models which are subjected to the combined pressure of hydrostatic loads and their own weight is accomplished by numerical integration over the increments of tangential stresses. Besides, a less complicated method for separating the main stresses in flat models was developed with electric models using

Investigations of a Built-in Hydroelectric Power Plant With a High Massive Dam

current-conducting paper. Isolines obtained on electric models are shown in figure 1. Research conducted on flat optical models of stresses subjected to combined action of their own weight and hydrostatic load were carried out on models made from epoxymal, which permit to carry out the "freezing" of the model and to subject it subsequently to hydrostatic load at indoor temperatures. Volumetric tensions existing in different sections of the model were determined by means of cuts taken from "frozen" models, (figure 2). Examinations of the cuts were conducted by means of a polarization microscope "МП-2 ", and by applying a double-beamed light in the polarization device. The conducted experiments made the evaluation of the tensions prevailing in this type hydroelectric power plant at the combined stress from its own weight and hydrostatic pressure, during periods of operation, possible, as well as at different stages of construction. They further permitted evaluation of the effect of different structural changes on the tension pre-

Investigations of a Built-in Hydroelectric Power Plant With a High Massive Dam

vailing in the installation, and,in conformity with the findings, made it possible to recommend the most favorable structural shape. The tests also showed the relation existing between the tension within the installation and the filling of the reservoir and the sequence of pouring cement. The examinations disclosed the effects of various structural changes on the stress status of the building, and made possible the selection of the most favorable shape, dimensions and location of the machine hall. An analysis of the tests led to the general conclusion that tensions occuring within the hydroelectric power plants, both during the time of construction and operation, do not exceed safety limits. The stability of the installation or its component parts is not endangered, and there is no need for reinforcing.

There is 1 table, 6 figures and 4 Russian references.

AVAILABLE: Library of Congress

Card 5/5

SOV/96-59-4-16/17

AUTHOR: Gubin, F.F., Doctor of Technical Sciences, Professor

TITLE: Bibliography (Bibliografiya) "The Turbine Equipment of the Hydroelectric Power Plants", Manual for Projecting, 2nd Edition, Revised and Supplemented, Under the General Editorship of Professor A.A. Morozov (Deceased) ("Turbinnoye oborudovaniye gidroelektrostantsiy", rukovodstvo dlya proyektirovaniya, izd. vtoroye, pererabotannoye i dopolnennoye, pod obshchey redaktsiyey prof. A.A. Morozova)

PERIODICAL: Gidrotekhnicheskoye stroitel'stvo, 1959, Nr 4, pp 61-63 (USSR)

ABSTRACT: This is a review of the above mentioned book.

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GUBIN, F.F., doktor tekhn.nauk

Certain problems concerning the study of the runners of hydraulic turbines of present-day hydroelectric power stations. Sbor. trud. MISI no.35:7-13 '61. (MIRA 14:9)

(Hydraulic turbines)

GUBIN, F.F.; MIKHAYLOV, I.Ye.; MITYUREV, Ye.L.

Choosing the relation of the height of a spiral inlet section to the width. Izv.vys.uch.zav.; stroi. i arkhit. 5 no.4:137-144 '62. (MIRA 15:9)

1. Moskovskiy ordena Trudovogo Krasnogo Znameni inzhenerno-stroitel'nyy institut imeni Kuybysheva.
(Hydraulic turbines)

GUBIN, F.F., doktor tekhn.nauk, prof.; KHESIN, G.L., kand.tekhn.nauk; SAKHAROV, V.N., inzh.

Using photoelastic coverings for studying the distribution of stresses and deformations in confrete structures. Gidr.stroi. 34 no.11:25-27 N '63. (MIRA 17:3)

GUBIN, F.F., doktor tekhn. nauk; KOPEIMAN, V.L., kand. tekhn. nauk; BELYAKOV, A.A., retsenzent; KVARDAKOV, A.F., dots., retsenzent; ORLOV, V.A., kand. tekhn. nauk, dots., nauchn. red.

[Economics of water management and hydraulic construction] Ekonomika vodnogo khoziaistva i gidrotekhnicheskogo stroitel'stva. Moskva, Stroiizdat, 1965. 302 p. (MIRA 18:8)

1. Zamestitel' Tekhnicheskogo Soveta Gosudarstvennogo proizvodstvennogo komiteta po energetike i elektrifikatsii SSSR (for Belyakov). 2. Zaveduyushchiy kafedroy gidravliki i gidrosooruzheniy Novosibirskogo inzhenerno-stroitel'nogo instituta im. V.V.Kuybysheva (for Kvardakov).

L 2035-66 EWT(m)/EWP(j) RM
ACC NR: AP6012083 SOURCE CODE: UR/0062/65/000/003/0580/0580

AUTHOR: Nesmeyanov, A. N.; Kozlovskiy, A. G.; Gubin, E. P.; Perevalova, E. G.

ORG: Moscow State University im. M. V. Lomonosov (Moskovskiy gosudarstvennyy universitet); Institute of Organoelemental Compounds, AN SSSR (Institut elementoorganicheskikh soyedineniy)

TITLE: Protolysis of mercury derivatives of ferrocene

SOURCE: AN SSSR. Izvestiya. Seriya khimicheskaya, no. 3, 1965, 580

TOPIC TAGS: titrimetry, ferrocene, mercury compound, dioxane, chlorine compound

ABSTRACT: The Rate constants were determined for the protolysis of mercury derivatives of ferrocene -- chloromercuroferrocene and diferrocene-mercury using hydrochloric acid in 90% (by volume) aqueous dioxane. The quantity of acid not entering into reaction was determined by potentiometric titration. The reaction rate in all cases is described by a second-order kinetic equation. The protolysis rate of diferrocene mercury is six times greater than the cleavage rate of di-p-anisylmercury under the same conditions.
Orig. art. has: 1 table. [JPRS]

SUB CODE: 07 / SUBM DATE: 18Jan65 / ORIG REF: 002

Card 1/1 vmb UDC: 531.1+542.957

GUBIN, F.V., podpolkovnik med.sluzhby (L'vov)

A typical form of congenital myotonia (parmyotonia). Vrach.delo no.8 851-853 Ag'58 (MIRA 11:8)
(MYOTONIA)

17(13) SOV/177-58-11-16/50

AUTHOR: Gubin, F.V., Lieutenant-Colonel of the Medical Corps

TITLE: From the Experience of Recognizing Neuropsychic Diseases

PERIODICAL: Voyenno-meditsinskiy zhurnal, 1958, Nr 11, p 51 - 53 (USSR)

ABSTRACT: The article deals with recognizing neuropsychic diseases in military persons. The author stresses the importance of the cooperation of military officers and commanders of different ranks. In order to facilitate the commander's work, a special scheme for official and medical characteristics was developed which has to be confirmed by the chief of the district medical corps and sent to the unit as a guide. The scheme contains the following questions: activity in the service, in social life, progress in studying, discipline, character of temper, easy disposition in the collective, family conditions, physical development, interest in sports, beginning

Card 1/2

From the Experience of Recognizing Neuropsychic Diseases

of the independent working life, endured diseases, complaints on the state of health, spastic attacks. The well-timed and careful examination of military persons in order to diagnose neuropsychic diseases is very important for the treatment and prophylaxis of the disease and the decision whether the patient is suitable for military service. Patients with insufficient and unstable healing results are sent to the VVK (Military Medical Board). Patients, who are emotionally unstable are treated in the PMP (Regimental Medical Station). One case report is given.

GUBIN, F.V., podpolkovnik med. sluzhby; LESHCHINSKIY, S.D. (L'vov)

Pulmonary abscess complicated by acute appendicitis and brain abscess. Vrach. delo no.1:77-79 '59. (MIRA 12:4)

1. Okrushnoy gospital' pogranichnykh voysk (nauchnyy rukovoditel' - zaslushennyy deyatel' nauki, prof. Ye.V. Maslov).
(LUNGS--ABSCESS) (BRAIN--ABSCESS) (APPENDICITIS)

GUBIN, F.V., podpolkovnik meditsinskoy sluzhby (L'vov)

Treatment of some diseases of the nervous system by intravenous drip injections of a 25 novocaine solution. Vrach.delo no.5:531 My '59. (MIRA 12:12)

(NOVOCAINE) (NERVOUS SYSTEM--DISEASES) (INTRAVENOUS THERAPY)

GUBIN, G. D.

GUBIN, G. D. -- "Histochemical Characteristics of Tissue Preserved by the Method Developed by Academician V. P. Filatov. Sverdlovsk State Medical Inst. Sverdlovsk, 1955. (Dissertation for the Degree of Candidate of Medical Sciences.)

SO: Knizhnaya letopis', No. 4, Moscow, 1956

GUBIN, G.D.

Quantitative changes of metabolites in tissue cultivated by V.P. Filatov's method [with summary in English]. Biul.eksp. biol. i med. 46 no.10:92-96 O '58 (MIRA 11:11)

1. Iz kafedry obshchey biologii (zav. - prof. A.N. Trifonova) Sverdlovskogo meditsinskogo instituta (dir. - prof. A.F. Zverev) Predstavlena deystvitel'nym chlenom AMN SSSR V.N. Chernigovskim.
(TISSUE CULTURE,
Filatov's method, metab. aspects (Rus))

17(3) SOV/20-125-1-50/67

AUTHORS: Gubin, G. D., Yurkina, A. K.

TITLE: Histochemical Determination of Ribonucleic Acid and Glycogen in the Tissues of Animals in Different Physiological States (Gistokhimicheskoye opredeleniye ribonukleinovoy kisloty i glikogena v tkanyakh zhivotnykh, nakhodyashchikhsya v razlichnykh fiziologicheskikh sostoyaniyakh)

PERIODICAL: Doklady Akademii nauk SSSR, 1959, Vol 125, Nr 1, pp 185-187 (USSR)

ABSTRACT: The amount of ribonucleic acid varies in the case of tissue-injuries in 3 phases both in tissues of the intact organism and in isolated tissues (Refs 6 - 10). In the case of "entering the place of injury" the amount of ribonucleic acid (RNA) decreases (I phase). With increasing degree of injury the amount of RNA increases considerably. (II phase). In the case of an irreversible injury and a destruction of the cell, the amount of RNA decreases rapidly (Refs 1, 2, 4, 6, 8) in consequence of a washing-out process (III phase). An injury implies also a change of glycolysis, i. e. an

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increase occurs (Refs 3, 11). It is the aim of the present investigation to clarify the character of the RNA and glycogen concentration in the tissues of healthy animals and of those suffering from avitaminosis or starving for a certain period of time. For this purpose the liver-tissue of 20 guinea-pigs was used (8 control animals, 4 with C-avitaminosis, 8 were in a complete state of starvation : for 15, 18, 22 hours, 1, 2, 4, 8 and 9 days). The animals were decapitated and from their livers sections with microtome were made. The investigation produced the following results: 1. The liver-cells of the animals suffering from avitaminosis or from starvation (especially up to 24 hours) show a higher RNA-concentration than those of the healthy and normally nurished ones. 2. In the case of increasing RNA-content the glycogen decreases as a rule. It is possible that both variations are in connection with the intensification of the glycolytic processes. It is a well-known fact that in the case of regeneration and injury

of the cell, glycolysis is increased (Refs 3, 11). At the same time, however, the RNA-content increases too (Refs 2, 12). The problem is intended to be further investigated. There are 2 figures and 12 Soviet references.

ASSOCIATION: Sverdlovskiy gosudarstvennyy meditsinskiy institut (Sverdlovsk State Medical Institute)

PRESENTED: October 14, 1958, by A. I. Oparin, Academician

SUBMITTED: June 2, 1958

41845

S/205/62/002/004/005/014
I015/I215

27.1220

AUTHOR: Gubin, G.D.

TITLE: Histochemical investigation of the effect of ionizing radiation on the nucleic acids and glycogen in the liver of rats

PERIODICAL: Radiobiologiya, v.2, no.4, 1962, 553-557

TEXT: No reports on the simultaneous study of nucleoprotein and carbohydrate metabolism in the liver following irradiation have been met with in medical literature. These experiments were carried out on albino rats (107 irradiated and 73 controls) of the same sex, weighing 150-170g. The irradiation lasted one hour with 800r of gamma-rays from a ГУТ -Co^{60} (GUT-Co^{60}) apparatus. The liver tissue, after decapitation of the animals, was fixed in Carnoy's fluid. Histochemical investigations for RNA (Brachet's method), DNA (Feulgen's method) and glycogen (Shabadash's method) were carried out 24, 48 and 72 hours after the irradiation. The first visible changes were those of a decrease in DNA concentration

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S/205/62/002/004/005/014
I015/I215

Histochemical investigation of...

in the cell nuclei 24 hours after irradiation. RNA and glycogen were unaltered at that time. The two latter components showed alterations within 48 hours: the concentration of the first in the cytoplasm increased and that of the second decreased. This process continued during the third day after irradiation. The mechanism of the phenomenon observed is unexplained. There are 3 figures.

ASSOCIATION: Sverdlovskiy meditsinskiy institut (Institute of Medicine, Sverdlovsk)

SUBMITTED: October 19, 1960

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ACCESSION NR: AR4027227 S/0299/64/000/002/M014/M014

SOURCE: RZh. Biologiya, Abs. 2M72

AUTHOR: Barbarin, V. V.; Gubin, G. D.; Kostromskaya, V. A.

TITLE: (2M72) Effect of ionizing radiation on tissue respiration. Indices of nucleic acid and glycogen in the process of regeneration

SOURCE: Sb. tr. Sverdl. med. in-t, vyp. 39, 1963, 26-37

TOPIC TAGS: radiation, radiation sickness, respiration, tissue respiration, tissue regeneration, nucleic acid

ABSTRACT: In the regenerating planaria Dendrocoelium lacteum and Planaria forva, exposed or unexposed to irradiation (700 r) the authors determined respiratory quotient by the Warburg method, ribonucleic acid by the method of Brachet, and glycogen by the method of Shabadash. It was shown that during regeneration of exposed and unexposed animals, oxygen consumption decreased, and respiration in both groups of animals was characterized by a high level of the aerobic portion of oxido-reductive processes. In the early stages of regeneration, the amount of ribonucleic acid in the cytoplasm increased and the glycogen

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ACCESSION NR: AR4027227

decreased. Later, when differentiation predominated, the RNA/glycogen ratio became normal, due to increased glycogen and decreased RNA. The authors believe that the energy changes leading to regeneration are relatively stable to ionizing irradiation.

SUB CODE: LS DATE ACQ: 14Feb64 ENCL: 00

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ACCESSION NR: AR4025764 S/0299/64/000/003/P059/P059

SOURCE: RZh. Biologiya, Abs. 3P393

AUTHOR: Barbarin, V. V.; Gubin, G. D.; Kostromskaya, V. A.

TITLE: (3P393) The effect of ionizing radiation on oxidation-reduction processes, the dynamics of carbohydrate metabolism, and nucleic acids in frog liver

SOURCE: Sb. tr. Sverdl. med. in-t, vy*p. 39, 1963, 38-43

TOPIC TAGS: radiation, radiation sickness, cell respiration, carbohydrate metabolism, DNA, nucleic acid, liver

ABSTRACT: In experiments on frogs (Rana ridibunda) subjected to ionizing radiation at doses of 1000, 1500, and 2000 r, the following were determined: RNA content by the method of Brachet, DNA by the Feulgen method, glycogen by the Shabadash method, and the qualitative and quantitative respiratory quotients of the hepatic cells on addition of KCN as an inhibitor of oxygen consumption. Normally, 58.6% of the intracellular respiration of liver cells proceeds via a pathway which is inhibited by cyanide, and this is completely blocked 1 day

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ACCESSION NR: AR4025764

after irradiation. Similar decreases in cellular DNA and glycogen and increases in RNA were observed 18 hours after irradiation and on subsequent days (up to and including day 16). This decrease in the role of the cyanide-inhibited portion of the respiratory chain, plus the decrease in glycogen reserves observed after irradiation, has led to the hypothesis that a hypoxic state is developed, with increased glycolytic metabolism.

SUB CODE: LS DATE ACQ: 27Feb64 ENCL: 00

Card 2/2

ACCESSION NR: AR4027237 S/0299/64/000/002/P065/P065

SOURCE: RZh. Biologiya, Abs. 2P409

AUTHOR: Mezentsev, A. I.; Gubin, G. D.

TITLE: Changes in the radiosensitivity of animals as a result of previous x-irradiation

CITED SOURCE: Sb. tr. Sverdl. med. in-t, vyp. 39, 1963, 110-116

TOPIC TAGS: radiosensitivity, radiation, radiation sickness, radiation resistance

ABSTRACT: In experiments on 245 albino rats, one group was subjected to a single total-body irradiation at a dose of 800 r and a second group was subjected to two irradiations at doses of 43 and then 800 r with a 7-day interval. A record was made of survival, weight change, changes in the Hb content and leukocyte count in the peripheral blood, the condition of the animals, and the histological index (DNA, RNA and glycogen content of the liver). Previous irradiation increased survival of irradiated animals 2-5-fold (with the exception of a group of animals with an initial weight higher than 300 g, where the survival rate remained unchanged). Radiation sickness of such pre-irradiated animals was less severe. In addition, the RNA and glycogen content of pre-irradiated animals changed only slightly. DNA

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ACCESSION NR: AR4027237

content was decreased to the same extent in both groups of animals. V. Kozlov

DATE ACQ: 14Feb64 SUB CODE: LS ENCL: 00

Card 2/2

GUBIN, G. N.

Gubin, G. N. -- "A Study of the Immunobiological Properties of Strains of the Hoof-and-Mouth Virus Isolated in the USSR between 1951 and 1953." All-Union Inst of Experimental Veterinary Medicine, Min Agriculture USSR. Moscow, 1956. (Dissertation for the Degree of Candidate in Veterinary Science)

So; Knizhnaya Letopis', No 12, 1956

RATNER, S.I., professor; KOROLEV, G.P.; GUBIN, G.N.; KOMOLOVA, R.P.

A case of foot-and-mouth disease of prolonged duration in man. Klin. med. 34 no.7:70-77 Jl '56. (MLRA 9:10)

1. Iz infektsionnogo otdeleniya Klinicheskoy ordena Lenina bol'nitsy imeni S.P.Botkina (nauchnyy rukovoditel' - prof. S.I.Ratner, glavnyy vrach - prof. A.N.Shabanov), Nauchno-proizvodstvennoy laboratorii Ministerstva sovkhozov RSFSR i Yashchurnoy laboratorii Vsesoyuznogo instituta eksperimental'noy veterinarii (dir. - prof. N.I.Leonov)

(FOOT-AND-MOUTH DISEASE, case reports in man, prolonged duration)

137-58-5-8808 D

Translation from: Referativnyy zhurnal, Metallurgiya, 1958, Nr 5, p 10 (USSR)

AUTHOR: Gubin, G. V.

TITLE: Investigation of the Metallurgical Properties of Granules Obtained by a Chemical Catalytic Method (Issledovaniye metallurgicheskikh svoystv granul, poluchennykh khimiko-kataliticheskim metodom)

ABSTRACT: Bibliographic entry on the author's dissertation for the degree of Candidate of Technical Sciences, presented to the In-t metallurgii AN SSSR (Institute of Metallurgy, Academy of Sciences, USSR), Moscow, 1957.

ASSOCIATION: In-t metallurgii AN SSSR (Institute of Metallurgy, Academy of Sciences, USSR), Moscow.

1. Particles--Metallurgical analysis 2. Particles--Catalysis

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GUBIN, G. V.

AUTHOR: Gubin, G.V. (Moscow). 24-6-6/24

TITLE: Metallurgical properties of ore-coal pellets. (Metallurgicheskiye svoystva rudno-ugol'nykh okatyshey).

PERIODICAL: "Izvestiya Akademii Nauk, Otdeleniye Tekhnicheskikh Nauk" (Bulletin of the Ac.Sc., Technical Sciences Section), 1957, No.6, pp.32-36 (U.S.S.R.)

ABSTRACT: One of the acute problems is the development of an efficient pelletizing process for fine ores. In principle two methods exist for improving the strength of the pellets, one with and one without roasting. It is only recently that P. I. Kanavts has proposed a method of improving the strength of the pellets without applying high temperatures and pressures; this method was developed by the Institute of Metallurgy imeni A. A. Baykov, Ac.Sc. (Institut Metalurgii imeni A. A. Baykova AN SSSR) in cooperation with the Institute of Mined Fuel, Ac.Sc. (Institut Goryuchikh Iskopayemykh AN, SSSR). Before crushing, the material consists of 70% concentrates from the Kursk magnetic anomaly, 15% fine coke and 15% lime. This mass is then granulated and into it a catalyst solution is fed in the form of a fine powder. The thus obtained pellets are channeled into a special carburisation chamber where they

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Metallurgical properties of ore-coal pellets. (Cont.)

are subjected to the effect of CO_2 containing waste gases of industrial furnaces. Due to the action of the catalyst a considerably greater strengthening of the pellets occurs than in the case of natural carburisation. For producing the pellets fine material of sizes from 1 mm up to 300 mesh is used and the intensive mixing permits the intensification of the relevant processes and thus also an increase in the output. The authors studied the metallurgical properties of ore-coal pellets obtained by this method, the average analysis of the studied pellets was as follows:

Fe_{total} - 40%, $FeO_{(Fe_3O_4)}$ - 17.82%, C - 13.9%

SiO_2 -11.36%, Al_2O_3 - 0.4%, CaO - 12.4, MgO - 1.26%

The reduction properties were studied in a flow of carbon monoxide which was fed at a rate of 2 litres/min with a speed of 1.18 cm/sec. The obtained dependence of the reduction ratio (Fe_{met}:Fe_{total}) on the time for various temperatures (800, 900, 1000 and 1100 C) are plotted in Fig.1. Fig.2 shows the change in the carbon content during

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Metallurgical properties of ore-coal pellets. (Cont.)

the reduction at 1100, 1000, 900 and 800 C, whilst Fig.3 shows the dependence of the Fe_{met}: Fe_{total} of the pellets as a function of time at 1000 C inside an N_2 stream as well as inside a CO stream. The reduction shows particularly interesting features between 1000 and 1100 C which is attributed to the development of direct reduction reactions; a degree of reduction equalling 50% is obtained at 800, 900, 1000 and 1100 C after 28.5, 18.5, 10 and 7 mins respectively. The thereby necessary coal consumption equals 0.3, 5.3 and 7.5% respectively which indicates that the coal consumption rises sharply on increasing the temperature from 800 to 1100 C. Some of the results obtained on the softening temperature are plotted in Fig.4 which gives the dependence of the settling of the pellets and the agglomerate as a function of the softening temperature. The mechanical strength was also tested. In the original non-reduced state the specimens withstood a load of up to 80 kg/cm^2 and Fig.5 shows a photo of pellets of 7 to 9 mm dia. subjected to a pressure of 4 kg for 60 mins inside a CO atmosphere and during that time the temperature was raised from 25 to 1100 C; in spite of the high temperature and the relatively

Metallurgical properties of ore-coal pellets. (Cont.)

high load, the pellets did not break, they only became deformed. The gas permeability was also tested and in Fig.6 the pressure loss obtained during passage of 250 m^3/hr of air through a 500 mm high layer of the material with an average dia. of 395 mm is plotted. It can be seen that pellets of 10 to 20 mm fractions show a smaller resistance (by almost half) to passage of air than pellets of 5 to 11 mm fractions.

There are 6 figures and 7 references, two of which are Slavic.

SUBMITTED: February 2, 1957.

AVAILABLE:

Card 4/4

GUBIN, G.V.

24-12-16/24

AUTHOR: Gubin, G.V. (Moscow).

TITLE: Increase in volume of the magnetite pellets and briquettes during reduction. (Uvelicheniye ob"yema magnetitovykh granul i briketov pri vosstanovlenii).

PERIODICAL: Izvestiya Akademii Nauk SSSR, Otdeleniye Tekhnicheskikh Nauk, 1957, No.12, pp.76-77 (USSR)

ABSTRACT: In investigating the metallurgical properties of ore/coal pellets obtained by chemical catalytic methods, it was established that an increase in volume takes place during reduction with carbon monoxide and this is accompanied by a considerable loss in strength. To elucidate the conditions of swelling and the possible causes, a series of tests were made with ordinary carbonised specimens and also with pellets and briquettes produced solely from ores without any binders. As a criterion of swelling, the increase in height of the specimen in % of the initial height was taken. It was established that the size of the specimens increases only in gases with a certain CO content and that heating in a stream of hydrogen, nitrogen and air is not accompanied by an increase in volume. Addition of fine coke increases the effect of swelling, whilst "deep

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Increase in volume of the magnetite pellets and briquettes during reduction.

carbonisation" reduces it. The curves, Fig.1, represent the increase in height of the briquettes as a function of the reduction temperature in a CO atmosphere for the temperatures 750, 800, 850, 900, 950, 1000°C. Fig.3 shows the results obtained for the size increase of pellets.
There are 3 figures and 3 references, one of which is Slavic.

SUBMITTED: September 23, 1957.

AVAILABLE: Library of Congress.

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GUBIN, G. L.

18(4) PHASE I BOOK EXPLOITATION SOV/1896

Akademiya nauk SSSR. Institut metallurgii

Metallurgiya, metallovedeniye, fiziko-khimicheskiye metody issledovaniya (Metallurgy, Study of Metals, and Physicochemical Methods of Investigation) Moscow, Izd-vo AN SSSR, 308 p. (Series: Its: Trudy, vyp. 3) Errata slip inserted. 3,000 copies printed. 1958

Resp. Ed.: I.P. Bardin, Academician; Ed. of Publishing House: A.N. Chernov; Tech. Ed.: I.F. Kuzmin.

PURPOSE: This book is of interest to researchers in metallurgy, as well as to the technical personnel of the metallurgical industry.

COVERAGE: This volume of the Trudy (Transactions) of the Institut metallurgii imeni A.A. Baykova (Metallurgical Institute im. A.A. Baykov) contains 31 studies on metallurgy, individual metals and alloys, and physicochemical methods of investigation. Some of the studies pertain to the reduction of titanomagnetites, the viscosity and other characteristics of blast furnace slag, dislocation in metals, cracking of metals due to corrosion, simultaneous

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solubility of metals at various temperatures, apparatus for measuring electrical resistance and for determining the melting point of alloys and metals, optical spectral analysis, quantitative determinations by the sublimation method, and aging of alloys. Each study is accompanied by references.

TABLE OF CONTENTS:

130-58-2-2/21

AUTHOR: Gubin, G.V.

TITLE: Organisation of Repair Services in Metallurgical Works (Organizatsiya remontnoy sluzhby na metallurgicheskikh zavodakh)

PERIODICAL: Metallurg, 1958, Nr 2, p 2, (USSR).

ABSTRACT: This is a further contribution to the discussion of the organisation of repair and maintenance services, started with two articles in Metallurg, Nr 5 (by V.F. Ivanov) and 6, and on which the Editor invites further comments. He disagrees with Ivanov's recommendation that each repair section should have its own machine-tool park for making simple, light and frequently-changed parts. He would limit the machine tools of a section to those required for fitting and assembling work. He lists his own recommendations for centralization which provide for intra-works specialisation in the production of spare and other parts, in the production of blanks and in the type of repair work.

ASSOCIATION: VNIIOchermet

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1. Machines-Maintenance

130-58-2-3/21

AUTHOR: Gubin, G.V.

TITLE: Pelletising Pulverized Iron Ore Materials (Okomkovaniye tonkoizmel'chennykh zhelezorudnykh materialov)

PERIODICAL: Metallurg, 1958, Nr 2, pp 3-4 (USSR).

ABSTRACT: Pointing out that the considerable fraction of ores now being subjected to beneficiation has led to the production of large quantities of concentrates with 80% under 0.06 mm, the author discusses the formation of such materials into blast-furnace feed. He contrasts drum and disc pelletizers and the means for firing the pellets, stating that the combined up- and down-draught sinter-strand method is superior to the shaft-kiln method. He goes on to describe the "chemical catalytic" pelletizing method, proposed in 1954 by P.I. Kanavets, Candidate of Technical Sciences, Stalin prize-winner, and developed by personnel of the Institut goryuchikh iskopayemykh (Institute of Mineral Fuels) and Institut metallurgii (Institute of Metallurgy) of the Ac.Sc. USSR. The finely-divided iron-ore material is mixed with fine lime and ground fuel (coke, coal or brown-coal semi-coke) and after moistening the mix is fed onto a disc pelletizer. On the pelletizer, the mix is sprayed with a solution of a catalyst whose function is to increase the rate of reaction of lime with carbon dioxide. The pellets are

transferred to a special vessel and there treated with carbon dioxide containing flue gases at 55-65 °C, where the lime dissolved by the catalyst repidly changes to calcium carbonate and the pellets harden. The pellets are highly reducible, deform under load at 950 °C and soften at 1 200 - 1 300 °C. During reduction by carbon monoxide, the strength of pellets made from Kuznets Metallurgical Combine magnetic concentrates falls somewhat, but even these and Krivoy Rog concentrate ores are suitable for electric furnaces and low-shaft blast furnaces. The author states that further investigation will show the possibility and desirability of using chemical-catalytic pellets as blast-furnace feed: in contrast to fluxed sinter, the pellets contain carbon dioxide which will increase the heat requirements of the charge in the furnace.

ASSOCIATION: Institut metallurgii AN SSSR (Institute of Metallurgy of the Ac.Sc. USSR)

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1. Iron-Production

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SOV/130-60-1-4/22

AUTHORS: Karmazin, V. I., Gubin, G. V., Tsybenko, A. V., Kucher, A. M.

TITLE: Blast Furnace Production. New Technology of Kerch' Ore Preparation for Smelting

PERIODICAL: Metallurg, 1960, Nr 1, pp 7-10 (USSR)

ABSTRACT: The authors emphasize the need for drastically increasing the use of low-cost Kerch' ore (composition: 32-49% Fe, 0.35-3.5% Mn, 0.1% As, and 25-30% limonite). Previous concentration processes have not proved rational. The Scientific Research Institute for Mechanical Concentration of Minerals of Ferrous Metallurgy (Mekhanobrchermet) has developed a process which involves roasting by natural gas. Contrary to earlier methods, the gangue (25-30% Fe) is refired at 1,100-1,200° C to dissociate iron aluminosilicates and separate metallic iron. Magnetic roasting at 700-800° C and subsequent magnetic separation failed to lower the Fe content in the gangue.

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Blast Furnace Production. New Technology of Kerch' Ore Preparation for Smelting

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However, for lean ores magnetic separation is more effective, increasing Fe content in the concentrate by 6-8%. The removal of As was tested, and results showed that gaseous reducing agent in a "boiling" layer of basic ore is more effective than a solid reducing agent in a "nonboiling" layer. In another test, 78% As was removed by blowing steam through heated ore (42.7% Fe, 0.13% As) at 1000° C. Methods of direct ore reduction were tested in a laboratory rotary furnace comprising a metal housing with a 200-mm-diam stainless steel tube sealed at one end by welding. While heating the working area, the combustion products did not penetrate into the reduction zone, allowing the maintenance of a high carbon monoxide content (to 80%). The 5-kg charge contained ore, dolomite, and coke breeze. Reduction occurred at 1,150° C. After cooling, the reduced ore was crushed and subjected to centrifugal electromagnetic separation. A concentrate with 90% Fe and gangue with 5% Fe was produced. The authors

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suggest verifying the process under industrial conditions as follows: Crushed ore is subjected to magnetized roasting at 700-800° C in a furnace with a "boiling" layer where the As content is lowered and part of the ore magnetized. Roasted hot ore is subjected to dry magnetic enrichment; oölites with 57% Fe are separated from intermediate products with about 43% Fe. The intermediate products and dust are directly reduced in an alternating coal-flux layer at 1,100-1,200° C. Then the material is cooled and excess solid reducing agent separated to be reused in the charge. The recovered ore is crushed and separated. A rich concentrate with 75-90% Fe and gangue with 5-10% Fe is produced. The former is compacted and is suitable for charge in blast or steelmelting furnaces. There is 1 figure; and 3 tables.

ASSOCIATION: Scientific Research Institute for Mechanical Concentration of Minerals of Ferrous Metallurgy (Mekhanobrchermet)

GUBIN, G.V. (Krivoy Rog); KARPASIN, V.I. (Krivoy Rog); SHKOVYRA, G.E. (Krivoy Rog)

Some features of the reduction of calcined pellets of concentrates from the Southern Mining and Dressing Combine by gaseous reducing agents. Izv. AN SSSR. Otd. tekh. nauk. Met. i topl. no.1:147-148 Ja-F '61. (MIRA 14:2)

(Iron--Metallurgy)

GUBIN, G.V. (Krivoy Rog); KUCHER, A.M. (Krivoy Rog); NEVOISA, G.G. (Krivoy Rog)

Thermal methods of treating Kerch ores for magnetic separation.
Izv. AN SSSR. Otd. tekh. nauk. Met. i topl. no.2:3-13 Mr-Ap '61.
(MIRA 14:4)

(Kerch Peninsula--Iron ores)
(Fluidization)
(Magnetic separation of ores)

GUBIN, G.V., kand.tekhn.nauk

Magnetized roasting of ores (in member countries of the Mutual Economic Assistance Council). Metallurg 6 no.3:9-12 Mr '61. (MIRA 14:5)

1. Mekhanobrchermet.
(Europe, East—Ore dressing)

GUBIN, Georgiy Viktorovich; KUCHER, Aleksandr Mikhaylovich; BYKOV, Gennadiy Vasil'yevich; IZMALKOV, Aleksandr Zakharovich; YARKHO, Ye.N., otv. red.; KACHALKINA, Z.I., red. izd-va; SABITOV, A., tekhn. red.

[Roaster of ores]Obzhigal'shchik rud. Moskva, Gosgortekhizdat, 1962. 68 p. (MIRA 15:10)
(Ore dressing)

KARMAZIN, Vitaliy Ivanovich, doktor tekhn. nauk, prof. Prinimali uchastiye: KRUTIY, V.V.; SANZHAROVSKIY, P.A.; GUBIN, G.V.; ZUBAREV, S.N., otv. red.; ARZAMASOV, N.A., red.izd-va; BOLDYREV, Z.A., tekhn. red.

[Modern methods of magnetic separation of ferrous metal ores] Sovremennye metody magnitnogo obogashcheniia rud chernykh metallov. Moskva, Gos. nauchno-tekhn. izd-vo lit-ry po gornomu delu, 1962. 658 p. (MIRA 15:3)
(Magnetic separation of ores) (Iron ores)

GUBIN, G.V., kand. tekhn. nauk

Obtaining high-grade concentrates from Kerch Peninsula ores.
Met. i gornorud. prom. no.1:60-62 Ja-F '62.
(MIRA 16:6)

(Kerch Peninsula—Iron ores)
(Ore dressing)