BUKHMAN, D., inzh. (Minsk); KISLYACHENKO, V., inzh. (Minsk); SHAKHOV, V., inzh. (Minsk)

The "Belarus'-110" television receiver and phonograph combination. Radio no.9:28-30 S '63. (MIRA 16:12)

SHPIL'MAN, Yevgeniy Markovich; BUKHMAN, David Romanovich;
TRAVIN, A.A., otv. red.; KONDRAT'YEVA, V.P., red.

["Belarus'-110" television and radio-phonograph console]
Teleradiola "Belarus'-110." Moskva, Sviaz', 1965. 71 p.
(Biblioteka "Televizionnyi priem," no.21) (MIRA 18:11)

BUKHMAN, G.D., inzhener.

Increasing the efficiency of turbine installations. Energetik 4 no.6:16-18 Je '56. (MLRA 9:8)
(Steam turbines)

BUKHMAN, G.D., inzhener.

Increasing the surface of the packing heater. Elek. sta. 27 no.10: 54 O '56. (MLRA 9:12)
(Steam turbines)

BUKHMAN, G.D., inzhener.

Modification of the system of turbine packings. Energetik 5 no.2:13-14 F '57. (MLRA 10:3)

(Steam turbines)

BUKHMAN, G.D., inzh.; TUYEVA, A.A., inzh.

Improving the performance of turbine oil coolers. Elek.sta. 28 no.12:65 D '57. (MIRA 12:3)

(Oil coolers)

BUKHMAN, G.D.

BUKHMAN, G.D., inzh.; TUYEVA, A.A., inzh.

Effect of turbine design on the life of turbine oils. Elek.sta. 29 no.1:79-81 Ja '58. (MIRA 11:2)
(Lubrication and lubricants)

BUKHMAN, G.D., inzh

Improving the performance of steam-turbine ejectors. Elek.sta. 29 no.9:72-73 S '58. (MIRA 11:11)
(Steam turbines)

8 (6) SOV/91-59-4-5/28

AUTHORS: Zasypkin, V. A. and Bukhman, G. D., Engineer

TITLE: An Additional Steam Extraction on a AK-34 Turbine (Osushchestvleniye dopolnitel'nogo otbora para na turbine AK-34)

PERIODICAL: Energetik, 1959, Nr 4, pp 7 - 8 (USSR)

ABSTRACT: The authors describe the additional steam extraction for regeneration purposes on a 34-megawatt impulse reaction Siemens Schuckert turbine, having one Rateau stage and 26 reaction stages in the high-pressure section. The steam reentry from the high-pressure section into the low-pressure section is performed by two 1000 mm pipes. The turbine had an uncontrolled steam extraction after the 23rd high-pressure reaction stage at 2.1 atmospheres for heating the condensate to 100-105°C which entered the deaerators. An additional steam extraction at 16.8 atm was installed in 1954. In 1958, the authors suggested a new steam extraction after the 26th stage of the high-pressure section at 0.55 atm and 83°C for

Card 1/2

An Additional Steam Extraction on a AK-34 Turbine SOV/91-59-4-5/28

a new PN-130-3 condensate heater produced by the plant "Komega". This leads to an increased steam consumption of the 24th, 25th and 26th reaction stages which in turn increased the pressure on them. Calculations performed by the Khar'kovskoye otedeleniye Tsentral'nogo konstruktorskogo byuro (Khar'kov Branch of the Central Designing Office) showed that the pressure increase did not exceed the nominal stress in the base sections of the blades of these stages. The condensate is heated by the new method from 35°C to 73°C whereby 1800 tons of fuel are saved annually. There is 1 diagram.

Card 2/2

BUKHMAN, G.D., inzh.

Simplifying the thermal circuit of the evaporating installation of high-pressure turbines. Energetika 8 no.3:13-14 Mr '60. (MIRA 13:6)

(Steam turbines)

BUKHMAN, G.D., inzh.

Reducing the number of working locations for engineer assistants in the turbine room of a state-owned regional electric power station. Energetik 8 no.5:10-11 My '60. (MIRA 13:8)
(Steam power plants)

BUKHMAN, G.D., inzh.

Improvement in the operation of regenerative turbine preheaters.
Energetik 8 no.8:6-8 Ag '60. (MIRA 13:10)
(Steam power plants—Equipment and supplies)
(Steam turbines)

BUKHMAN, G.D., inzh.

Increase of efficiency, reliability, and simplification of the design of turbine departments. Elek.sta. 31 no.7:29-33 Jl '60. (MIRA 13:8)

(Turbines)

S/196/61/000/012/010/029
E194/E155

AUTHOR: Bukhman, G.D.

TITLE: Reconstruction of the gland arrangement of condensing turbines

PERIODICAL: Referativnyy zhurnal, Elektrotekhnika i energetika, no.12, 1961, 30, abstract 12G 171. (Elektr. stantsii, no.7, 1961, 74-76)

TEXT: The gland arrangements of large medium-pressure condensing turbines installed in power stations of the USSR in 1929-1940 have numerous defects, the most important of which is the leakage of steam from the glands into the condenser and into the low-potential vacuum tapping points, which causes considerable heat losses and reduces the thermal efficiency of the turbine. A description is given of the reconstruction of the gland system which completely prevented the leakage of steam into the condenser and directed this steam into the regenerative bleed points or into specially installed gland heaters. Examples are given of gland reconstruction and, in brackets, the

Card 1/2

Reconstruction of the gland ... S/196/61/000/012/010/029
E194/E155

consequent annual saving of conventional fuel, in the following turbines: AEG of 85 MW with stop-valve steam conditions of 18.5 atm, 393 °C (50 tons); Siemens-Schuckert 35 MW with steam conditions of 29 atm, 405 °C (200 tons). The economies here may be still further increased by the installation of special gland heaters. Wumag 10 MW and 3 Brown Boveri turbines each of 50 MW. In these latter the installation of a gland heater gave great fuel economy (71 200 tons) and increased the reliability.

[Abstractor's note: Complete translation.]

Card 2/2

S/196/61/000/011/014/042
E194/E155

AUTHORS: Bukhman, G.D., and Merkur'yev, P.T.

TITLE: A luminescent method for finding leaks in (steam) condensers

PERIODICAL: Referativnyy zhurnal, Elektrotekhnika i energetika, no.11, 1961, 28, abstract 11G 166. (Elektr. stantsii, no.4, 1961, 86-87)

TEXT: Experience with the method in high- and medium-pressure power stations of the Sverdlovenergo system is described. The luminophores used were (I) fluorescine, and (II) sodium fluorescinate. Because of the poor solubility of (I), caustic soda is added to the water when it is used. In preparing the condenser for hydraulic testing, a quarter of the volume of the steam space is filled with water, then solution (II) is added, after which the condenser is filled with water to above the tube level. The condenser pump is operated through the recirculation line for 25-30 minutes to ensure good mixing of the solution. The fluorescine concentration should be greater than 5 mg/litre.

Card 1/2

A luminescent method for finding ... S/196/61/000/011/014/042
E194/E155

When looking for leaks the lamp should be moved along the tube plate from top to bottom at a distance of 50-70 mm from the tubes in a darkened water chamber. Solution which escapes through small leaks in the tube system shines with a bright yellow-green colour. Lamp type УФО-4А (UFO-4A) with glass grade УФС-6 (UFS-6) was used. Supply was at 12 V a.c. The test lasted 4 to 8 hours.

[Abstractor's note: Complete translation.]

Card 2/2

BUKHMAN, G.D., inzh.

Intermediate selection in a multiple-stage pump. Energetik 9 no.5:20-21 My '61. (MIRA 14:5)
(Electric power plants--Equipment and supplies)
(Pumping machinery, Electric)

BUKHMAN, G.D., inzh.

Decrease in the axial clearances in the blading of a medium-pressure turbine. Energetik 9 no.4:11 Ap '61. (MIRA14:8)

(Turbines)

BUKHMAN, G.D., inzh.

Improvement in the layout of the glands of medium-pressure turbines of the Leningrad Metallurgical Works. Energetik 9 no.7:11-13 Jl '61. (MIRA 14:9)
(Leningrad--Metallurgical plants--Equipment and supplies)
(Turbines)

BUKHMAN, G.D., inzh.

Meeting on the exchange of experience in the fields of reliability and efficiency of turbine departments at electric power plants. Elek. sta. 31 no.9:84-86 S '60. (MIRA 14:10)
(Electric power plants)
(Turbines)

BUKHMAN, G.D., inzh.; MERKUR'YEV, P.T., inzh.

Use of luminescence in a method for determining leakage in condensers. Elek.sta. 32 no.4:86-87 Ap '61. (MIRA 14:7)
(Condensers (Steam))

BUKHMAN, G.D., inzh.

Redesigning of the gland networks of condensing turbines. Elek. sta. 32 no.7:74-76 Jl '61. (MIRA 14:10)
(Steam turbines)

BUKHMAN, G.D., inzh.

Redesigning of the MV-IMZ thermal circuit with breather and storage tanks. Elek.sta. 32 no.9:79-80 S '61. (MIRA 14:10)

(Condensers(Steam))

BUKHMAN, G.D., inzh.

Modernization of the control valves of a high-pressure turbine.
Energetik 10 no.5:12-13 My '62. (MIRA 15:5)
(Steam turbines)

BUKHMAN, G. D., inzh.

Experience in operating 5TS10 feed pumps without use of unloading lines. Energetik 10 no.8:9 Ag '62. (MIRA 15:10)

(Pumping machinery)

BUKHMAN, G.D., inzh.

Improvement of the operation of turbine oil cooling systems.
Energetik 11 no.2:8-10 F '63. (MIRA 16:3)
(Turbines--Cooling)

BUKHMAN, G.D., inzh.; MARINOV, A.M., inzh.; MELAMED, B.M., inzh.; YAROSLAVTSEV, A.M., inzh.

Start of a 200 Mw. block in the electric power system of Sverdlovsk. Elek.sta. 34 no.2:2-7 F '63. (MIRA 16:4)
(Sverdlovsk--Electric power plants)

BUKHMAN, G.D., inzh.

Improvement of the thermal network of the VK-100-2(5) LMZ turbine. Elek. sta. 34 no.8:22-25 Ag '63. (MIRA 16:11)

USSR/Human and Animal Physiology. Neuromuscular Physiology. V

Abs Jour; Ref. Zhur-Biol., No 6, 1958, 27289.

Author : G.G. Bukhman
Inst [redacted]
Title : The Recovery of Certain Hemodynamic Signs in Children Following Controlled Muscular Work.

Orig Pub: Fiziol. zh., 1957, 3, No 2, 96-104.

Abstract: No abstract.

Card : 1/1

74

BUKHMAN, G.G.

Changes in some hemodynamic factors following physical exercise. Vrach.delo no.4:419 Ap '57. (MLRA 10:7)

1. Kafedra fiziologii (zav. - dots. M.Ya.Gorkin) Kiyevskogo instituta fizicheskoy kul'tury i kabinet vrachebnogo kontrolya detskoy sportivnoy shkoly No.1 Kiyevskogo gorodskogo otdela narodnogo obrazovaniya.
(EXERCISE) (BLOOD--CIRCULATION)

BUKHMAN, G. G., Cand Med Sci -- (diss) "Restoration of certain ~~indexes~~ indicators of hemodynamics and the leukocyte picture of blood in children ~~aged~~ of age 10-12 years following physical ~~exercise of~~ exertion for speed, endurance and mixed type." Kiev, ~~Kiyev,~~ 1956 [data published 1958]. 18 pp (~~Kiyev~~ Kiev Order of Labor Red Banner Med Inst im Academician A. A. Bogomolets), 200 copies (KL, 17-58, 111)

BUKHMAN, G.G.

Muscular leukocytosis in children following exercise for speed and for resistance. Vopr.fiziol. no.9:155-162 '54.

(MIRA 14:1)

(EXERCISE, effects,
on musc. leukocytic reaction in child.)
(MUSCLES, physiology,
eff. of exercise on musc. leukocytic reaction in child.)
(LEUKOCYTES,
musc. leukocytic reaction in child. to exercise)

BUKHMAN, I.

Introducing new machinery in the "Transcaucasian Federation" Plant. Mor.flot 20 no.1:25-27 Ja '60. (MIRA 13:5)

1. Nachal'nik tsekha novoy tekhniki na zavode imeni Zakfederatsii.
(Caspian Sea--Ships--Maintenance and repair)
(Caspian Sea--Docks--Equipment and supplies)

BUKHMAN, I.M., inzhener-podpolkovnik

Mission accomplished! Vest.protivovozd.obor. no.10:70-71 O '61.
(MIRA 15:2)

(Communications, Military)

BUKHMAN, Konstantin Nikolayevich

Statistika Podgotovki Spetsialistov. Moskva, Gosstatizdat, 1960.
58 p. tables.
Bibliographical footnotes.

BUKHMAN, L.A.

Spontaneous pneumothorax, and mediastinal and subcutaneous emphysemas following exophagotomy. Vest. oto-rin. 16 no.4:86-87 Jl-Ag '54. (MLRA 7:8)

1. Iz kliniki bolezney ukha, gorla i nosa (zav. prof. D.M.Rutenburg) Leningradskogo meditsinskogo pediatricheskogo instituta.

(ESOPHAGUS, surgery,
*esophagotomy, postop. pneumothorax & mediastinal & subcutaneous emphysemas)
(PNEUMOTHORAX,
*in esophagotomy)
(PNEUMOMEDIASTINUM,
*in esophagotomy)
(EMPHYSEMA,
*subcutaneous, in esophagotomy)

BUKHMAN, I.A., kandidat meditsinskikh nauk.

Pneumothorax and mediastinal and subcutaneous emphysemas as complications in tracheotomy in children. Vest. oto-rin. 16 no.5:46-48 S-O '54. (MLRA 7:12)

1. Iz kliniki bolezney ukha, gorla i nosa (zav. prof. D.M.Butenburg) Leningradskogo meditsinskogo pediatricheskogo instituta.

(PNEUMOTHORAX, etiology and pathogenesis, tracheotomy in child, with pneumomediastinum & subcutaneous emphysema)
(EMPHYSEMA, subcutaneous in tracheotomy in child, with pneumomediastinum & pneumothorax)
(TRACHEA, surgery, tracheotomy, postop. pneumomediastinum, pneumothorax & subcutaneous emphysema)
(PNEUMOMEDIASTINUM, etiology and pathogenesis, tracheotomy in child, with pneumothorax & subcutaneous emphysema)

BUKHMAN, L.A., Kandidat meditsinskikh nauk

Experimental data on the problem of the pathogenesis of pneumothorax, empyema of the mediastinum and emphysema of the subcutaneous cellular tissue in tracheotomy in children. Vest. oto-rin.17 no.3:62-64 My-Je '55. (MLRA 8:9)

1. Iz kliniki bolezney ukha, gorla i nosa (zav.-prof.D.M. Rutenburg) i kafedry patologicheskoy fiziologii (zav.-prof. N.T. Shutova) Leningradskogo pediatricheskogo meditsinskogo instituta.

(TRACHEA, surgery,
tracheotomy, complicated by pneumothorax, mediastinal & subcutaneous emphysema in child)
(PNEUMOTHORAX, etiology and pathogenesis
tracheotomy in child)
(EMPHYSEMA,
subacutaneous, in tracheotomy, pathogen. in child)
(PNEUMOMEDIASTINUM, etiology and pathogenesis)
tracheotomy in child)

EXCERPTA MEDICA Sec.11 Vol.10/10 Oto-Rhino-Laryngo Oct5

BUKHMAN L. A.

1937. BUKHMAN L. A. Leningrad. *Skin-galvanic reflex in the studies of hearing in children of pre-school age (Russian text) VESTN. OTO-RINO-LARING. 1957, 3 (83-87)

The hearing of 54 children at the age of 3-7 yr. was tested with the aid of the skin galvanic reflex (s.g.r.). It was found that 12 had normal hearing, 16 an impairment of hearing, 13 were deaf and dumb with 'residual hearing' and 13 were totally deaf and dumb. The presence of approximate sound s.g.r. was established and later conditioned reflex was formed. When the reflex weakened it was strengthened by the aid of weak pain stimulus. It was revealed that s.g. r. with pain stimulus as a reinforcement, may be used as an objective hearing test. It is especially recommended in children of the above mentioned age when other methods of investigation give doubtful results.

EXCERPTA MEDICA Sec 11 Vol 12/7 O.R.L. July 59

1356. PARESES OF THE FACIAL NERVE IN TYMPANOPLASTY (Russian text) - Bukhman L. A. Leningrad - VESTN. OTO-RINO-LARING. 1958, 20/6 (32-36)

Of the 233 tympanoplasties performed according to Wullstein, 27 patients developed paresis of the facial nerve (10 during the operation and 17 in the postoperative period). Of all the pareses which developed during the operation, 2 patients had stable manifestations of the paresis from 1-2 yr. due, apparently, to considerable trauma of the nerve; in 3 patients the function of the nerve was not fully restored. In the remaining 5 patients of this group, as well as in all patients who had developed paresis in the postoperative period, the function of the nerve was completely restored. Paresis may occur as a result of collateral hyperaemia and oedema of the nerve, the action of toxins issuing from the wound, intracranial haemorrhage, trauma of the nerve and eustachian tube.

(XI, 19)

BUKHMAN, L. A., kand. med. nauk

Late results of tympanoplasty. Vest. otorin. no.5:17-23 '61. (MIRA 14:12)

1. Iz kliniki bolezney ukha, gorla i nosa (zav. - prof. D. M. Rutenburg [deceased]) Leningradskogo pediatricheskogo meditsinskogo instituta.

(TYMPANIC MEMBRANE—SURGERY)

BUKHMAN, L.A., kand.med.nauk

Complications in tympanoplasty in the postoperative period. Zhur. ush., nos. i gorl. bol. 21 no.1:19-25 Ja-F '61. (MIRA 14:6)

1. Iz kafedry bolezney ukha, gorla i nosa (zav. - prof. D.M. Rutenburg) Leningradskogo meditsinskogo pediatricheskogo instituta.
(EAR--SURGERY)

BUKHMAN, L.A., kand.med.nauk

Otosurgical tactics in limited labyrinthitis in patients subject to tympanoplasty. Zhur. ush., nos. i gorl.bol. 22 no.1:55-61 Ja-F '62. (MIRA 15:5)

1. Iz kliniki bolezney ukha, gorla i nosa (zav. - prof. D.M.Rutenburg [deceased]) Leningradskogo meditsinskogo pediatricheskogo instituta.
(LABYRINTH (EAR)--DISEASES) (TYMPANIC MEMBRANE--SURGERY)

BUKHMAN, L.A.

Clinical aspects and treatment of cancer of the larynx; from data of the clinic of the Pediatric Institute from 1946 to 1960, Leningrad. Vop.onk. 8 no.8:91-97 '62. (MIRA 15:9)

1. Iz kliniki bolezney ukha, gorla i nosa (zav. - prof. D.M. Rutenburg [deceased] Leningradskogo pediatricheskogo meditsinskogo instituta.

(LARYNX--CANCER)

BUKHMAN, L.B.

PAVLOVSKIY, Ye.N., general-leytenant meditsinskoy sluzhby, akademik; NIZOVKIN, V.K., dotsent; PERVOMAYSKIY, G.S., polkovnik meditsinskoy sluzhby; BUKHMAN, L.B.; GLAGOLEV, V.V.

New repellent ointment. Voen.-med.zhur. no.7:46-49 Jl '56. (MIRA 9:11)
(INSECT BAITS AND REPELLENTS)

IOFFE, I.S.; SUKHOMLINOV, F.K.; LEPORSKIY, A.N.; BUKHMAN, L.B.

Preparation of β-propiolactone and its stability in aqueous solutions and in storage. Zhur.prikl.khim. 36 no.3:629-632 My '63. (MIRA 16:5)

(Hydracrylic acid)

BUKHMAN, Mikhail Moiseyevich; SHMIDT, A.A.; BUKHARIN, V.V.; VASIL'YEVA, G.N.; KISINA, Ye.I., tekhnicheskiy redaktor;

[Production of mayonnaise] Proizvodstvo maioneza. Moskva, Pishchepromizdat, 1955. 32 p. (MLRA 9:4)
(Mayonnaise)

1. BUKHMAN, M. M.; RUTKEVICH, I. G.

2. USSR (600)

4. Metal Spraying

7. Using metal spraying in repairing equipment. Masl. zhir. prom. 17 no. 6 1952.

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

BUKHMAN, M.M.

Ind. Eng. (1) 2

Chem Abs V48
1-25-54
apparatus, Plant equipment, and unit operations

A piezometric method for measuring the amount of liquid in reservoirs. M. M. Bukhman. *Maslobolno-Zhirovaya Prom.* 18, No. 8, 23(1953).—A description with diagrams of an app. for measurement of height of liquid in a reservoir (I) of known dimensions, based on the resistance of a column of liquid to passage of air bubbles from a pipe at the bottom of I. Vladimir N. Krukovsky

BUKHMAN, M.M.

BUKHMAN, M.M., inzhener; LUCHIN, B.G.

Continuous vacuum drier. Masl.-zhir.prom. 19 no.5:19-21 '54. (MLRA 7:9)

1. Glavrazzhirmaslo.
(Drying apparatus)

BUKHMAN, M.M., inzhener.

Stuffing box for centrifugal pumps. Masl.-zhir. prom. 22 no.7: 30-32 '56. (MLRA 9:12)

1. Roglavrasshirmaslo.
(Centrifugal pumps) (Packing (Mechanical engineering))

BUKHMAN, M.M

RUTKEVICH, I.G., inzhener; BUKHMAN, M.M., inzhener.

Automatic control of water gas and hydrogen gas producers.
Masl.-zhir.prom. 22 no.8:14-19 '56. (MLRA 10:1)

1. Giproshir (for Rutkevich). 2. Rosglavrasshimaslo (for Bukhman).
(Gas producers) (Water gas) (Hydrogen)

Light filters for the region from 1 to 5 μ. AL. P. Bukhman. *J. Tech. Phys.* (U. S. S. R.) 3, 1097-1102(1933).—Absorption-spectrum curves are given on a no. of filters of Soviet and foreign make. Transparency curves are given for colored-glass filters contg. Mn, Cr_2O_3, CoN, CuO and Se glass Rg7 prepd. by the Izyumskii factory and for glass filters black no. 21 Mn, green no. 16, red Cr + Cu, blue no. 15, and ruby no. 12 prepd. by the Corning Glass Works, as well as for other substances such as mica, gelatin, biotite, water glass on celluloid, celluloid, 10% alc. soln. of I_2, aq. soln. of $KMnO_4$, gelatin filter no. 3 I, soln. of I_2 in acetone, ZnO on mica, MgO on covering glass, ZnO on covering glass, MgO on mica, HgO_2 on glass, Pb + O on glass, WO_3 on glass, biotite between parallel glass + black glass, MgO on covering glass, glass no. 8 + glass no. 26 and CuO colored glass + gelatin 31. F. H. Rathmann

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION

BUKHMAN, M. P.

PA 156T87

USSR/Physics - Photochemistry
Ultraviolet Radiation

1 Nov 49

"Photochemical Variations in Protein, Amino Acids, and Nucleonic Acids Subjected to Ultraviolet Radiation," M. P. Bukhman, S. Ye. Manoylov, State Opt Inst, 4 pp

"Dok Ak Nauk SSSR" Vol LXIX, No 1

Experiments show specific photochemical reaction goes on as result of illumination of some organic substances found in cells, particularly in protein and nucleonic acid. Suggests this phenomenon

156T87

USSR/Physics - Photochemistry
(Contd)

1 Nov 49

can be used to determine some substances which make up cells in histological preparations. Submitted by Acad S. I. Vavilov 16 Aug 49.

156T87

BUKHMAN, M.P.

LARIONOV, L.F.; BUKHMAN, M.P.; KONDRAT'YEVA, T.H.

Ultraviolet absorption microscopy of live cells. Zh. obsh. biol., Moskva 12 no.6:394-407 Nov-Dec 51. (CIML 21:4)

1. Experimental Cancer Department of the Central Roentgenological, Radiological, and Cancer Institute.

BRUMBERG, YE. M.; BUKHMAN, M. P.; KOZLOV, V. YE.

Microscope and microscopy

Histochemical reactions for the ultraviolet microscopy. Dokl. AN SSSR 86, no. 3, 1952.

Monthly List of Russian Accessions, Library of Congress, December 1952. UNCLASSIFIED.

BUKHMAN, M. F.

Chemical Abst.
Vol. 48 No. 6
Mar. 25, 1954
Biological Chemistry

9
(4) Nuc Sc

Action of penetrating radiation on cultures of tissues by the method of ultraviolet microscopy. L. P. Larionov, T. M. Kondrat'eva, and M. F. Bukhman (Central Roentgenol., Radiol., and Cancer Inst., Leningrad). *Arkh. Patol.* 15, No. 6, 69-75(1953).—Typical photographic reproductions are shown which clearly indicate the usefulness of ultraviolet absorption microscopy for early detection of changes that take place in living cells. It appears to be more sensitive than the methods of vital staining. Changes in both the cytoplasm and the nucleus can be readily observed and alterations of nucleic acids or nucleoproteins can be detected. Penetrating radiation causes first of all changes in the absorption of nuclear nucleoproteins, and only later are the cytoplasmic components affected. The radiation employed was that produced by exposures to radon; the substrate was the mammary gland of a mouse, with carcinoma. G. M. Kosolapoff

6-16-54
RMZ

USSR/General Problems of Pathology - Tumors. Metabolism. U.

Abs Jour : Ref Zhur - Biol., No 21, 1956, 98173

Author : Bukhman, M.P., Kostina, L.I.
Inst : ---
Title : Investigation, in Ultraviolet Microscope, of Tumor-Cell Pigment.

Orig Pub : Biofizika, 1956, 1, No 4, 387-289

Abstract : By means of a spectrographic attachment to an ultraviolet microscope, the absorption spectrum of melanin (M), hemosiderin (H) and Hb of fresh hemorrhages was studied. A fast method of differentiation of pigment of M and H in tumors was developed, which was based on the fact that the dissolving of H in oxalic acid in the preparation, illuminated by ultraviolet rays, occurs extremely fast and may be observed under the microscope. -- I.S. Neyfel'd

Card 1/1

BUKHMAN, M.P.; RAYKOV, I.B.

Usefulness of some histological fixatives in ultraviolet microscopy. Zhur.ob.biol. 17 no.3:233-238 My-Je '56. (MLRA 9:8)

1. Kafedra zoologii bespozvonochnykh Leningradskogo gosudarstvennogo universiteta imeni A.A. Zhdanova.
(FLUORESCENCE MICROSCOPY)

BUKHMAN, M.P.; POL'KINA, R.I.; SERGEYEV, L.V.

Methods for making permanent preparations in fluorescence microscopy. Zhur.ob.biol. 17 no.3:239-240 My-Je '56. (MLRA 9:8)

1. Laboratoriya eksperimental'noy onkologii Instituta onkologii AMN SSSR.

(FLOURESCENCE MICROSCOPY)

BUKHMAN, M.P.

BRUMBERG, Ye.M.; MEYSEL', M.N.; BARSKIY, I.Ya.; BUKHMAN, M.P.

Experiment in ultraviolet fluorescence microscopy of biological objects [with summary in English]. Zhur.ob.biol. 19 no.2:99-107 Mr-Ap '58. (MIRA 11:3)

1. Gosudarstvennyy opticheskiy institut im. S.I.Vavilova, Institut biofiziki AN SSSR i Botanicheskiy institut im. V.L.Komarova AN SSSR.
(FLUORESCENCE MICROSCOPY) (ULTRAVIOLET RAYS)

BUKHMAN, M.P.; KONDRAT'YEVA, T.M.

Mechanism of the formation of micronecrotic foci in the borne marrow of animals caused by penetrating radiations (according to the data of fluorescence and ultraviolet microscopy). Biofizika 4 no. 4:454-459 '59. (MIRA 14:4)

1. TSentral'nyy nauchno-issledovatel'skiy institut meditsinskoy radiologii, Leningrad.
(X RAYS—PHYSIOLOGICAL EFFECT) (MARROW)
(FLUORESCENCE MICROSCOPY)

ALEKSANDROV, S.N.; BUKHMAN, M.P.

Spectrographic study of the effect of radiant energy on the ultraviolet absorption spectra of crystalline proteins and amino acids. Biofizika 4 no. 6:720-725 '59. (MIRA 14:4)

1. TSentral'nyy nauchno-issledovatel'skiy rentgeno-radiologicheskiy institut Ministerstva zdravookhraneniya SSSR, Leningrad.
(RADIATION--PHYSIOLOGICAL EFFECT) (PROTEINS--SPECTRA)
(AMINO ACIDS--SPECTRA)

BUKHMAN, M.P., KONDRAT'YEVA, T.M.

Investigation of the reaction of animal marrow cells to the action of ionizing and ultraviolet radiation by means of ultraviolet and fluorescent microscopy. TSitologiia 2 no.3:309-317 My-Je '60. (MIRA 13:7)

1. Laboratoriya mikroskopii Instituta tsitologii AN SSSR i Otdel otdalennoy luchevoy patologii TSentral'nogo instituta meditsinskoy radiologii Ministerstva zdravookhraneniya SSSR.
(MARROW) (RADIATION--PHYSIOLOGICAL EFFECT)

OVCHINNIKOVA, L.P.; SELIVANOVA, G.V.; KHEYSIN, Ye.M.; Prinimali uchastiye: BUKHMAN, M.P.; KUDRYAVTSEV, B.N.

Phctocytometric study by the ultraviolet ray method of the eff ct of starvation on RNA and DNA content in paramecium caudatum. Sbor. rab. Inst. tsit. no. 3:44-53 '63. (MIRA 17:7)

1. Laboratoriya mikroskopii Instituta tsitologii AN SSSR.

BUKHMAN, N. A.

The welding of low-alloy high-speed steel plates and buildingup a hard-alloy plate on a cutting tool made of a different metal using contact rolling machines and apparatus. Moskva, Otraslevoe biuro tekhn. informatsii LARIGa, 1940. 15 p.

BUKHMAN, N.A.

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PROCESSES AND PROPERTIES INDEX

The Brazing of Low-Alloy Tool Tips Using Powdered Brazing Alloys. N. A. Minkevich, N. A. Bukhman and Yu. A. Geiser. (Vestnik Metallopromyshlennosti, 1940, No. 1-2, pp. 45-57). (In Russian). The quenching temperatures of low-alloy chromium-tungsten-molybdenum-vanadium tool steels range from 1175° to 1240° C., and are thus below the melting points of the materials generally used for brazing on tungsten high-speed steel tips. General requirements which brazing alloys for this particular purpose have to satisfy are considered. Ferro-manganese (75%) was selected as a brazing material, its melting point being controlled between 1100° and 1280° C. by additions of up to 40% of copper. Two copper-nickel alloys were also tested. Furnace brazing and electrical resistance brazing were employed. Shear tests and heat-treatment and cutting tests were made on the brazed-on tips. The best results were given by a ferro-manganese brazing alloy containing 20-25% of copper. The copper-nickel alloys gave a higher shear strength, but their behaviour during subsequent heat treatment of the tools was unsatisfactory. Attempts to quench tools directly from the brazing temperature resulted in reduced cutting efficiency.

JC

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION

BUKHMAN, N. P.

A

Reska Plastinok iz tverdogo splava na apparatakh dlya stykovoy svarki. (Cutting of plates from hard alloys on apparatus for butt contact welding) Sogtavili N. A. Bukhman I K. O. Inzhennik. Moskva. Mashgiz, 1944)

8 P. Diagrs.
At head of title: VNII

Basic handbook discusses methods for cutting preparation and cutting of hard alloy plates, equipment necessary for cutting and some operational features of cutting.

BUKHMAN, N.A. and K.P. IMSHENNIK.

Svarka zagotovok instrumenta po metodu Ignat'eva na stykovykh mashinakh; instruktsiia dlia mastera i tekhnologa po svarke. Moskva, Mashgiz, 1944. 17 p. diagrs.

At head of title: Vsesoiuznyi nauchno-issledovatel'skii instrumental'nyi institut.

Butt welding of half-finished tools according to Ignat'ev's method; instructions for skilled workmen and welding technologists.

DLC: TS227.B92

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

BUKHMAN, N. A. & K. P. TYSHENNIK

Stykovaia svarka zagorovok instrumenta; instruktsiia dlia mastera i tekhnologa po svarke. (Moskva) Mashgiz, 1944. 30 p. diagrs.

Butt welding of half-finished tools; instructions for skilled workmen and welding technologists.

SO: Manufacturing and mechanical engineering in the Soviet Union, Library of Congress, 1953

BUKHMAN, N.A.

IMSHENNIK, K.P.; BUKHMAN, N.A.; VLADISLAVLEV, V.S., professor, retsenzent; KOLLI, A.Ya., inzhener, redaktor; MATVEYEVA, Ye.N., tekhnicheskiy redaktor.

[Technology of soldering hard-alloy cutting tools] Tekhnologiia paiki tverdosplavnogo instrumenta. Moskva, Gos. nauchno-tekhn. izd-vo mashinostroit. lit-ry, 1954. 160 p. (MLRA 8:2)
(Cutting tools) (Solder and soldering)

Bukhman, N. A

117-58-7-5/25

AUTHORS: Bukhman, N.A., Candidate of Technical Sciences, and Kutsovskiy, F.V., Engineer,

TITLE: A Semi-Automatic Machine for Butt Welding of Steel Blanks (Poluavtomat dlya stykovoy svarki stal'nykh zagotc ·ok)

PERIODICAL: Mashinostroitel', 1958, Nr 7, pp 16-19 (USSR)

ABSTRACT: The head and the bar portions of the vernier calipers "Puteyets" (Figure 1) are produced separately by stamping and are connected by contact butt welding. The article gives detailed information on the design and operation of a semi-automatic machine developed for this purpose by the Welding Laboratory of Vsesoyuznyy nauchno-issledovatel'skiy instrumental'nyy institut (All-Union Scientific Research Institute for Tools) collectively with the plant "Kalibr". The only manual operations are the installing of the blanks on the machine and the removal after welding. The work process itself, consisting of pre-heating, fusion and upsetting, is fully automatic. The machine design is described in detail. The information includes technological recommendations for the rate of feed in separate stages of process as are defined by a curve. The automatic drive of the machine, developed

Card 1/2

A Semi-Automatic Machine for Butt Welding of Steel Blanks 117-58-7-5/25

correspondingly to this curve, is described and illustrated separately. Several thousand vernier caliper blanks have already been joined at the plant "Kalibr" with the use of the described machine and work technology. The quality of the joints is constant and satisfactory. The machine is expected to find extensive use. There are 5 diagrams.

1. Welding machines--Characteristics

Card 2/2

BUKHMAN, N.A., kand.tekhn.nauk; SEDOV, V.S., inzh.

Automatic butt welding of blanks for metal-cutting tools.
Nov.tekh.izg.instr. no.2:75-77 '61. (MIRA 15:8)
(Automatic control) (Electric welding)

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3RD AND 4TH ORDERS

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7

Determination of citric and lactic acids. B. O. Lyubin and N. D. Sukhman. *Voprosy Pitaniya* 8, No. 1, 21-34(1949).—A review with 26 references. S. A. Karjala

COMMON ELEMENTS

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ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION

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The determination of reducing sugars by the cyanide method. B. O. Lyulin and N. U. Ilukhman. *Teploeny Pitaniya* 8, No. 2, 65-70(1939).—The method of Ionescu-Matiu (*Bull. soc. chim. biol.* 9, 68(1927)) is the most satisfactory rapid method. For solns. contg. 0.5-2% sugars concns. of $K_3Fe(CN)_6$ and KOH of 40 g./l. are most satisfactory.

S. A. Karjala

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION

CA 12

Determination of benzoic acid in foodstuffs. N. L. Bukhman. *Voprosy Pitaniya* 8, No. 6, 102-9(1939).—Owing to difficulties encountered with standard methods, the following method was worked out for products contg. *carbohydrates:* Into a 200-cc. flask place 25 g. of the substance to be detd., add 100 cc. of water at 80°, shake for 1-2 min. and, when cold, add water up to the mark. Filter. Place 50 cc. of the filtrate in a sepg. funnel, acidify with 2 cc. H_2SO_4 (1:3), add 40 cc. Et_2O and ext. the BzOH by shaking 5 min. Reext. the aq. layer, combine the exts. and wash with 5 cc. of water (repeat). Then add 2 cc. 0.5 *N* NaOH and shake 5 min. Pour the alk. ext. into a test tube and evap. on a water bath. To the obtained residue, add 0.2 g. NH_4NO_3 previously dissolved in 2 cc. concd. H_2SO_4. For complete nitrification place the test tube in a water bath for 20 min. On cooling add 4 cc. H_2O, cool again, add 20 cc. 25% ammonia and heat at 65° for 5 min. Then add 2 drops Na_2SO_3 soln. and cool for 30 min. at 3-4°. Compare the obtained coloring in a Duboscq colorimeter with a standard soln. composed of 13 cc. 2% soln. of NH_4CNS, to which has been added 1-2 cc. (according to the intensity of the coloring) of a $FeNH_4(SO_4)_2$ soln. contg. 0.1 mg. of Fe per cc. Use the equation, $x = (a \times b)/c$, for calcg. the result, where x is mg. of Fe corresponding to the coloring of the soln. to be detd.; a, the colorimeter reading of the standard soln.; b, mg. of Fe in the standard soln. of Fe-CNS and c, the colorimeter reading of the soln. to be detd. Calc. the amt. of Fe responsible for the coloring and then calc. the amt. of BzOH from a prepd. table, in which 0.079 mg. of Fe corresponds to 2 mg. BzOH, 0.133 mg. Fe to 4 mg., 0.17 mg. Fe to 6 mg., 0.233 mg. Fe to 8 mg., 0.279 mg. Fe to 10 mg., 0.366 mg. Fe to 12 mg., 0.446 mg. Fe to 14 mg.; 0.472 mg. Fe to 16 mg., 0.513 mg. Fe to 18 mg. and 0.652 mg. Fe to 20 mg. of BzOH. For products contg. *proteins* the following procedure is best: Into a 1-l. distn. flask place 20 g. of substance and 250 cc. of water, add 40 g. NaCl, 25 cc. dil. H_2SO_4, some pieces of pumice stone, and distil for 1.5 hrs. so as to have at least 200 cc. of distillate. To the receptacle place 5 cc. *N* NaOH. Conc. the distillate (or take one half of it) on a water bath to 100 cc., acidify with 2 cc. dil. H_2SO_4, add 40 cc. Et_2O and shake for 5 min. in a sepg. funnel. The test of the procedure is as described above. The presence of citric, malic or acetic acid does not interfere. In case of a pos. reaction on salicylic acid the latter is oxidized with permanganate. The method was tested on various canned fruits and confections, anchovies, cheese, caviar etc. The error is below 10%. T. Laanes

BUKHMAN, N.D.; LEVKOVICH, K.M.; KADYKOV, B.I. , professor, zaveduyushchiy.

Effect of phosphatides and oxypolymerized vegetable oil on the nutritive value of sunflower seed oil. Vop.pit. 12 no.3:49-54 My-Je '53. (MLRA 6:6)

1. Otdel gigiyeny i fiziologii pitaniya Nauchno-issledovatel'skogo sanitarno-gigiyenicheskogo instituta (Leningrad). (Lecithin) (Oils and fats)

1. BUKHMAN, N. D.

2. USSR (600)

4. Sunflower Seed Oil

7. Effect of phosphatides on the nutritive value of sunflower seed oil, Masl. -zhir. prom., 18, No. 4, 1953.

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

BUKHMAN, N. D. and ZAPOL'SKAYA, N. A.

"Development of Fat Diets for Various Adult Groups of the Population," paper presented at the Scientific Conference of the Leningrad Sanitation Institute, 8-10 May 1956.

U-3,054,017

PALLADINA, O.K., doktor biol. nauk; ANOSHKINA, A.A.; STEPANOVA, K.S.; BUKHMAN, N.D.; ZAPOL'SKAYA, N.A.

Formulas for margarine based on physiological needs. Masl.-zhir. prom. 24 no. 6:13-16 '58. (MIRA 11:7)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut zhirov(for Palladina, Anoshkina, Stepanova). 2. LNISGI (for Bukhman, Zapol'skaya).
(Margarine)

BUKHMAN, N. D., ZARCL'SKAYA, N. A., LEBEDEVA, N. YA., [illegible], L. F.

"Hygienic characteristics of fats of native origin and ways of enhancing their nutritive values."

report submitted at the 13th All-Union Congress of Hygienists, Epidemiologists and Infectionists, 1959.

S/244/62/021/001/004/004
I016/I216

Author: Bukhman, N. D.

Title: THE EFFECT OF THE ANTIOXIDANT PROPYLGALLATE ON THE NUTRITIONAL VALUE OF FATS

Periodical: *Voprosy pitaniya*, v. 21, no. 1, 1962, 68–72

Text: The study was conducted on growing male albino rats kept on a synthetic diet. Addition of 0.02% propylgallate to fats (refined sunflower oil, beef fat, mixed fat) lowered their nutritional value. The animals showed considerably lower gains of weight and retardation of development. During partial fasting, animals fed pyrogallate-treated fat failed to utilize their fat and protein reserves and succumbed earlier than the controls. These results contraindicate the use of propylgallate as an antioxidant in the fat industry. There are 3 figures and 2 tables.

Association: Otdel gigieny pitaniya Leningradskogo instituta radiatsionnoy gigieny (Department of Food Hygiene, The Leningrad Institute of Radiation Hygiene)

Submitted: February 29, 1960

Card 1/1

BUKHMAN, O., student

Seasonal factors of the course of pneumonia in young children in Dushanbe. Trudy Tadzh. med. inst. 50:200-203 '61. (MIRA 17:8)

1. Iz kafedry patologicheskoy anatomii (zav. prof. B.I. Monastyrskaya) Tadzhikskogo gosudarstvennogo meditsinskogo instituta imeni Abuali Ibn-Sino.

KOZLOVSKIY, M.T.; BUKHMAN, S.P.; MALYUK, A.T.

Cementation as means for metal separation. Trudy Kom. anal. khim. 4: 263-273 '52. (MIRA 11:6)

(Electrochemical analysis)
(Nonferrous metals)

BUKHMAN, S. P.

(1)

Chemical Abst.
Vol. 48 No. 5
Mar. 10, 1954
Metallurgy and Metallography

Cementation of some metals from aqueous solutions of their salts. M. T. Kozlovskii and S. P. Bukhman. *Izvest. Akad. Nauk Kazakh. S.S.R.* No. 101, *Ser. Khim.* No. 4, 3-10(1951); cf. *C.A.* 48, 1878e.—The theoretical aspects of cementation of metals from soln. are discussed with numerous references (Russell and Carver, *C.A.* 32, 7332[1]). The effects of the nature of the metal, of the soln., temp., agitation, and completeness of the process are reviewed. The exptl. study was made with HCl solns. of Bi with Cd, Fe, and Pb plates; the cementation of Bi on Cd and Fe occurs at nearly the same rate; it is considerably less rapid on Pb provided the total amt. of Bi is small (10 mg.). At small levels of Bi the rate is approx. equal in all cases. Cementation of Sb from H_2SO_4-HCl soln. on Cd and Fe was also examd. The cementation on Cd is very inefficient and yield of 10% was common. Fe is considerably more effective. Addn. of Cu to the soln. aids cementation of Sb on Fe or Cd making Cd utilization approach 100%; even small amts. of Cu are effective owing to lower H overvoltage on Cu than on Cd. Large concns. of Cu cause a drop in utilization of Cd owing to decreased area of anodic regions (pure Cd surface). At low concns. added Hg increases the sepn. of Sb; at high concns. no effect is observed. The results are discussed generally in light of electrochem. phenomena. G. M. Kosolapoff

BUKHMAN, S. P.

Chemical Abst.
Vol. 48 No. 4
Feb. 25, 1954
Analytical Chemistry

Cementation as a method for separating metals. M. T. Kozlovskii, S. P. Bukhman, and A. T. Malyuk. *Trudy Komissii Anal. Khim., Akad. Nauk S.S.S.R., Otdel. Khim. Nauk* 4(7), 263-73(1952).—Expts. on the cementation of Bi and Sb on Cd, Fe, and Pb, of Cd and Pb on Na amalgam, and of Cd on Zn amalgam are described. For the Bi and Sb expts. sheets of metal were placed in boiling HCl or HCl-

(over)

H_2SO_4. For large concns. of Bi the rate of cementation depended on the potential of the cementing metal. For small concns. of Bi the rate depended on the diffusion rate of the Bi ions. When 10.6 mg. Bi in 100 ml. of soln. was treated with Cd, Fe, and Pb, 53, 12, and 95%, resp., of the amt. of metal added was used to ppt. Bi. The rest of the metal was used in forming H. In 25 min. 88, 85, and 70% of the Bi was sepd. by Cd, Fe, and Pb, resp. The reaction rate could not be calcd. exactly because the area of the electrode surfaces changes. When 1.06 mg. Bi in 100 ml. was treated with Cd, Fe, and Pb, 13, 1.4, and 0%, resp., of the metal added was used to ppt. Bi. In 25 min. 50, 70, and 0% of the Bi was sepd. by Cd, Fe, and Pb, resp. When 100 mg. of Pb ion was added, 1 mg. Bi in 100 ml. was 98% sepd. on Cd, and no H was formed. Similarly in 25 min., 0.11 mg. Bi was 90% sepd. on Cd, and almost no Cd was used for H formation. Fifty mg. Sb was sepd. quantitatively on Cd when 20, 80, and 160 mg. Cu ion were added, with 90, 71, and 56%, resp., of the added Cd used for H formation. Cu formed a compd. with the Sb and raised the discharge potential of Sb ions. When Sb was cemented on Fe, Cu ion gave similar results. Expts. with amalgams were conducted in 100-ml. beakers at 20° with const. speed for the stirrer. These results were obtained for 0.1120 g. Cd after 20 min. of treatment with Na amalgam. Cd alone was not sepd. quantitatively on the Na amalgam. In neutral and in 0.1*N* acid solns. by addn. of 0.0051 g. Zn ion before addn. of Na amalgam 100% of the Cd was sepd., with 52.5 and 22.8% of the added Na used for Cd sepn. In neutral and 0.1*N* acid solns. with 0.0588 g. Ni ion 57.2 and 64.3% Cd, resp., was sepd., with 29 and 32%, resp., of the added Na used for Cd sepn. In neutral and 0.1*N* acid solns. with 0.0558 g. Fe ion 100% and 89% Cd, resp., was sepd. with 62.5 and 32.3%, resp., of the added Na used for Cd sepn. In neutral and 0.1 *N* acid solns. with 0.0036 g. Cu ion 98.7 and 100% Cd, resp., was sepd. with 49.4 and 22.2%, resp., of the added Na used for Cd sepn. With Ni, chiefly Cd was cemented first. In neutral soln. with Cd and Fe (or Cd and Ni) neither metal transferred completely to the Hg. In 0.1*N* acid both Cd and Cu transferred completely to the Hg. Other metals hindered Cd cementation on the Na amalgam. In acid solns. Zn amalgam sepd. Cd faster than Na amalgam, but Zn amalgam had little effect on Ni and Fe. In alk. soln., Pb could be sepd. quantitatively on Na amalgam, but 80% of the added Na was used for H formation. Here 1% amalgams gave better results than 0.5% amalgams. With 1% Na amalgam well-formed cubic crystals belonging to the triad system were formed. Their approx. compn. was Hg 99, Pb 0.27, and Na 0.55%. Sn could not be cemented by Na amalgam in air.

Eurilla Mayerle

KOZLOVSKIY, M.T.; BUKHMAN, S.P.

Polarography of salts of various metals with the aid of amalgam electrodes. Izv.AN Kazakh.SSR Ser.khim. no.5:14-21 '53. (MLRA 9:5)

(Polarography) (Salts)

Some Problems of Amalgam Polarography. A. I. Zebrova, M. T. Kozlovsky, and S. P. Bukimar (Zh. Fiz. Khim., [illegible] (Zhur. Fizicheskoi Khimii). [illegible] of Zn in the amalgam the half wave potential is displaced in the positive direction. This displacement is caused by the interaction, occurring simultaneously with anodic dissolution, of Zn in the amalgam with the soln. in presence of H ions. The dissolution of Zn shows an efficiency substantially >100%, which proves that apart from anodic there is also chem. dissolution. The presence of salts of other heavy metals in polarographic soln. has a marked effect on the polarographic curve. The current registered during polarographic detn. in such cases does not indicate the true diffusion-current, as there is an oppositely directed current due to the presence of heavy metals.—A. W.

1. Kazakhskiy universitet imeni S. M. Kirova Akademii Nauk Kaz. SSSR, Alma-Ata.

(Amalgams) (Polarography)

BUKHMAN, S P

5(2) pp. 2, 3 PHASE I BOOK EXPLOITATION SOV/1699

Akademiya nauk Kazakhskoy SSR. Institut khimicheskikh nauk

Issledovaniya po elektrokhimii vodnykh rastvorov i rasplavov i amal'gamnoy metallurgii (Research on the Electrochemistry of Water Solutions, Fusions and Amalgam Metallurgy) Alma-Ata, Izd-vo AN Kaz. SSR, 1958. 122 p. (Series: Its: Trudy, t. 3) 1,300 copies printed.

Ed.: V.V. Aleksandriyskiy; Tech. ed.: Z.P. Rorokina; Editorial Board of Series: I.I. Zabotin, V.M. Ilyushchenko, G.Z. Kir'yakov (Deputy Resp. Ed.), M.T. Kozlovskiy, (Resp. Ed.) and L.N. Sheludyakov.

PURPOSE: This book is intended for scientists and engineers in the electrochemical and nonferrous metal industries.

COVERAGE: This collection contains 14 reports by the Laboratories for Analytical Chemistry and Electrochemistry attached to the Institute of Chemical Sciences, Academy of Sciences, Kazakhstan Republic. The amalgam method of obtaining thallium from lead powder, the electrolysis of sulfate solutions of zinc and the impoverishment of waste slag during nickel production are described. The majority of articles have a practical nature and deal with problems of

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developing and perfecting new electrochemical methods for the production of nonferrous metals.

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AUTHORS: Kozlovskiy, M.T., Zabotin, P.I., Ilyushchenko, V.M., Bukhman, S.P., Nosek, M.V., Sergiyenko, V.Ya. and Malkin, Ya.Z.

TITLE: Use of an Amalgam Method for Extracting Thallium from Chimkent Lead Works Dust (Primeneniye amal'gamnogo metoda k izvlecheniyu talliya iz pyley chimkentskogo svintsovogo zavoda)

PERIODICAL: Tsvetnyye Metally, 1958, No.1, pp. 30 - 41 (USSR).

ABSTRACT: The work described was based on theoretical and applied work on amalgam methods of separating and producing metals at the Chemical-sciences Institute of the Ac.Sc. KazakSSR (Institut khimicheskikh nauk AN KazSSR) and the Kazakhsk State University imeni S.M. Kirov (Kazakhskiy gosudarstvennyy universitet im. S.M. Kirova) under the direction of M.T. Koslovskiy (Refs. 1-8). The following participated in the work: A. Zebreva, Candidate of Chemical Sciences, V. Gladyshev of the University and M. Levanov, V. Prachev, Ye. Rubanova, M. Shalaginova, G. Nosov and Yu. Stolyarov of the Chimkentsk Lead Works. K. Simakov and L. Ushkov of the Works helped to organise the semi full-scale trials and I. Yudevich and N. Karpenko analysed spectroscopically for thallium and N. Popova did chemical and polarographic analyses with O. Orsa

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Use of an Amalgam Method for Extracting Thallium from Chimkent Lead Works Dust

of the Chemical-sciences Institute of the An KazSSR. Sintering-dust analyses for different periods are tabulated (Table 1) and laboratory-scale experiments with the dust are described. Here, roasting of 20-25 kg batches was carried out at 400 - 500 °C, showing (Fig.1) that an appreciable part of the sulphide sulphur and thallium is eliminated within the first hour at 400 °C. Four-fold leaching of the dust (two 250-g samples) with water at 80 - 90 °C showed (Table 3) that 80-90% of the thallium was extracted in the water, the extraction increasing with temperature. Cementation of thallium with zinc amalgam was carried out on the acidulated extract which was continuously circulated (Fig.3): the results (Table 4) showed that 98-99% extraction of thallium from the solution could be obtained. It was shown that the amalgam (originally 0.36 - 0.40 g/litre Zn, 0.127 g/litre Cd and 108 mg/litre Tl) could be decomposed by anodic oxidation with special electrolytes at current densities of 100 - 50 A/m^2, the density being gradually reduced as the appropriate metal was removed from the amalgam. The flow-sheet based on the laboratory results (Fig.4) was put into practice in a larger scale plant (Fig.5) at the Chimkensk Works, where it

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Use of an Amalgam Method for Extracting Thallium from Chimkent Lead Works Dust

treated several tons of dust from April to October, 1956 and was used for balance experiments in October of that year. The article gives details of the different stages and balances for the different metals. These show that with the proposed method pure metallic thallium can be obtained with a yield of 65%, about 30% being in returns and 5% being lost. An editorial note invites discussion on the amalgam method. There are 5 figures, 13 tables and 10 Russian references.

ASSOCIATION: Institute of Chemical Sciences of the Ac. of Sc. KazSSR (Institut khimicheskikh nauk AN KazSSR) and Chimkent Lead Works (Chimkentskiy svintsovyy zavod)

AVAILABLE: Library of Congress

Card 3/3

KOZLOVSKIY, M.T.; NOSEK, M.V.; BUKHMAN, S.P.; ZABOTIN, P.I.; ILYUSHCHENKO, V.M.

Water leaching of thallium from agglomeration dust at the Chemkent lead smelting and refining works. Trudy Inst. khim. nauk AN Kazakh. SSR 3:5-14 '58. (MIRA 12:3)
(Thallium--Metallurgy)