OSTANKOV, Ye.V., inzh.

Efficient organization of the transportation of live stock products. Zhel.dor.transp. 41 no.11:32-36 N '59. (MIRA 13:2)

(Farm produce--Transportation)

OS[illegible], [illegible] A.

[illegible], I. A. Inzhener [illegible], [illegible] A. Inzh., [illegible], [illegible].
S[illegible], [illegible]. Inzh.

Leningradskiy filial [illegible] i dorozhnogo mashinostroyeniya

[illegible] m3/chas [illegible]

SO: Collections of Annotations of Scientific Research Work on Construction, completed in 1950. Moscow 1951

LAPIN, O.F.; KRUSHCHEV, M.S.; GORODINSKAYA, Ye.A.; KOCHEROINSKIY, M.N.
TELYANKEVICH, V.S.; SHARFMAN, S.D.; OSTANOV, Kh.

Improving the smelting of boron carbide. Prom.energ. 12 no.8:17-18
Ag '57. (MIRA 10:10)
(Boron carbides) (Smelting)

S/080/60/033/009/[illegible]
A003/A001

AUTHORS: Klebanov, O.S., Ostankevich, N.A.

TITLE: The Interaction of Selenium With Aqueous Solutions of Sulfites of Alkali Metals

PERIODICAL: Znurnal prikladnoy khimii, 1960, Vol. 33, No. 9, pp. 1957-1961

TEXT: The solubility of selenium in solutions of sodium and potassium sulfite was studied within the temperature range of 0-152°C. It was established that the solubility of selenium is characterized by the coefficients

$$K_1 = \frac{Se}{SO_3^{2-}} \quad \text{and} \quad K_2 = \frac{SeSO_3^{2-}}{SO_3^{2-}},$$

which are directly proportional to the concentration of SO_3^{2-} at constant temperature. At a pH value above 7.3-7.5 the solubility of selenium increases at lower pH values it decreases due to side reactions taking place. At a given pH value and constant temperature the solubility of selenium depends only on the SO_3^{2-} concentration. In the case of intensive mixing of the reaction mass above 200 rpm of the stirrer and a temperature of 90°C equilibrium is attained in the

Card 1/2

S/080/60/033/005/[illegible]/[illegible]
A003/A001

The Interaction of Selenium With Aqueous Solutions of Sulfites of Alkali Metals

solution after 30 min. Under equal initial conditions (concentrations of the sulfites, pH value, intensity of stirring, size of selenium crystals) the [illegible] rium in the solution is attained at 90°C 25 times faster than at 20°C. There are 5 figures, 1 table and 5 references: 4 Soviet, 1 German.

SUBMITTED: March 17, 1959

Card 2/2

OSTANKOVICH, B.F.

The ZhBA-3,5 unified bean harvester. Biul.tekh.-ekon.inform.- Gos.nauch.-issl.inst.nauch. i tekh.inform. no.6:64-66 '62. (MIRA 15:7)

(Beans--Harvesting)

NIKITENKO, I.T., kand.sel'sko-khozyaystvennykh nauk; OSTANKOVICH, M.F., inzh.

Machinery for continuous harvesting of cereal crops. Mashinostroenie no.4:89-92 Jl-Ag '62. (MIRA 15:8)

1. Gosudarstvennoye seriyno-konstruktorskoye byuro Zaporozhskogo soveta narodnogo khozyaystva. 2. Ukrainskiy nauchno-issledovatel'skiy institut mekhanizatsii i elektrifikatsii sel'skogo khozyaystva (for Ostankovich).
(Harvesting machinery)

OSTANKOVICH, B.F., inzh.

The KIR-1,5 rotor-type mower-grinder. Trakt. i sel'khozmash.
32 no.5:39-40 My '62. (MIRA 15:5)

1. Gosudarstvennoye spetsial'noye konstruktorskoye byuro po zernouborochnym mashinam.
(Mowing-machines)

OSTANOVA, M. M.

OSTANOVA, M. M. - "Hemiptera Harmful to Alfalfa and Measures to Combat Them." Uzbek State U imeni Alisher Navoi. Samarkand, 1955. (Dissertation for the Degree of Candidate in Biological Sciences)

So; Knizhnaya Letopis', No 3, 1956

USSR / General and Special Zoology. Insects. Harmful
Insects and Arachnids. Pests of Forage Cultures.

Abs Jour: Ref Zhur-Biol., No 14, 1958, [illegible].

Author : Agafonova, [illegible].
Inst : [illegible] University.
Title : 'Thrips Pests - the Pests of Seed Alfalfa in Samarkandskaya Oblast'.

Orig Pub: Tr. Kaz. un-ta, 1957, vyp. 67, [illegible].

Abstract: A list was offered of 20 species of the family Thripidae, which damaged alfalfa in various districts in 1954-1955. The most substantial damage to the alfalfa fruit organs is caused by Aeolothrips lineolatus, Odontothrips cognatus (these two Mitrothrips in the pupa phase and Haplothrips in 4-5 generations). Dendrothrochis punctulatus, Thrips atratus flavospurcus, Limothrips [illegible]

Card 1/2

52

USSR / General and Special Zoology. Insects. Harmful Insects and Arachnids. Pests of Forage Cultures.

Abs Journal: Ref Zhur-Biol., No 14, 1958, 64070.

Abstract: [illegible] hibernate in the image stage and have 3-4 generations. The biology of the most damaging thrips pests, H. limeicitus and C. punctulatus, is explained. The alfalfa tur is found on alfalfa each year from early spring to late fall in great numbers (200-250 larvae and image on an average of 50 swings by a hoop-net). Only the second and third generations of C. punctulatus have an economic value. A phenological calendar for both bugs for 1953 1955 is supplied. -- A. F. Adrianov.

Card 2/2

OSTANOVA, M.M.

Materials on the biology of the gray beet-leaf bug (Poecilocytus cognatus fieb). Trudy UzGU no. 87:183-188 '59. (MIRA 14:5)
(Samarkand Province--Leaf bugs)
(Alfalfa--Diseases and pests)

OSTANOVSKIY, T.

Claims of photoamateurs on industry. Sov. torg. 36 no.11: 13-15 N '62. (MIRA 16:1)
(Photography--Apparatus and supplies)

NAGRODSKIY, Yu.; OSTANOVSKII, T.

New packing materials. Sov. torg. 35 no.9:45-48 S '62. (MIRA 16:2)
(Packaging)

OSTANOVSKIY, T.

Bring photographic equipment up to present-day standards. Sov. foto 23 no.4:37 Ap '63. (MIRA 16:5)
(Photography--Apparatus and supplies)

VARFOLOMEYEV, F.G.; GEL'FENBOYM, M.Sh.; KOTOVICH, Yu.V.; OSTANOVSKIY, T.S.; SEMENETS, V.M.; SHIROKOVA, Ye.A.; EYGINSON, Ye.N.; VVEDENSKIY, S.F., red.; SIMEL'NIKOVA, TS.B., red.; TSESARKIN, L.D., red.

[Study of goods serving cultural needs] Tovarovedenie kul'ttovarov. [By] F.G.Varfolomeev i dr. Moskva, Izd-vo Ekonomika, 1964. 471 p. (MIRA 17:5)

ARKHANGEL'SKIY, N.A., doktor tekhnicheskikh nauk, redaktor; ANDREUSEVICH, D.A., kandidat pedagogicheskikh nauk, redaktor; OSTANOVSKIY, T.S., dotsent, kandidat tekhnicheskikh nauk; ORLOVA, O.A., redaktor izdaniya; MEDRISH, D.M., tekhnicheskiy redaktor

[Manual for the specialist on industrial goods and commodities] Spravochnik tovaroveda promyshlennykh tovarov. Moskva, Gos. izd-vo torgovoi lit-ry. Pt.3. [Chemicals and drugs; glass ware; ceramics; metal goods; electric apparatus; sewing machines for household use; watches; jewelry; furniture; carpets; building materials. Organization and management of trade in industrial goods] Khimiko-moskatel'nye tovary. Stekliannye tovary. Keramicheskie tovary. Metallicheskie tovary. Elektricheskie tovary. Shveinye mashiny semeinogo tipa. Chasy. IUvelirnye tovary. Mebel'. Kovrovye tovary. Stroitel'nye tovary. Organizatsiia i tekhnika torgovli promyshlennymi tovarami. 1956. 615 p.
(Commerce) (Manufactures) (MLRA 10:3)

Technology
Handbook on commercial [illegible] of cultural value. Moskva, Gosstorizdat, 19[illegible].

Monthly List of Russian Accessions, Library of Congress, June 19[illegible]. [illegible].

OSTANOVSKIY, T., dotsent:; SEMENOV, A.

Customers are waiting for good cameras. Sov. foto 22 no.7:34-35 Jl '62.
(MIRA 16:4)

1. Institut narodnogo khozyaystva imeni Plekhanova (for Ostanovskiy).
2. Starshiy inzhener Upravleniya kul'ttovarov Glavnogo upravleniya po mezhrespublikanskiy postavkam tovarov narodnogo potrebleniya (for Semenov).

(Cameras)

SERGEYEV, Mikhail Yepifanovich, 1889- , redaktor; OSTANOVSKIY, T.S., redaktor

[Industrial wares; a commercial guide] Tovarovedenie promyshlennykh tovarov. Moskva, Gos-torgizdat, 1949-1954. 3 v. (MLRA 9:9)
(Commercial products)

BIBIN, Leonid Pavlovich; VARFOLOMEYEV, F.G.; KALGANOV, D.I.; OSTANOVSKIY, T.S.; PUSHKIN, V.S.; TRAKHTENBERG, G.L.; MAKSIMOVICH, A.G., red.; SUDAK, D.M., tekhn.red.

[School and office supplies, musical instruments, photographic supplies, radio equipment, athletic goods, hunting and fishing equipment, toys] Tovary shkol'no-pis'mennye, kantseliarskie, muzykal'nye, foto, radio, sportivnye, okhotnich'i, rybolovnye, igrushki. Moskva, Gos. izd-vo torg. lit-ry, 1958. 328 p. (MIRA 11:4)
(Manufactures)

ABRAMOV, B.R.; ALEKSEYEV, N.S.; ARKHANGEL'SKIY, N.A., prof. [deceased]; GUREVICH, B.S.; ZAYTSEV, V.G.; KEDRIN, Ye.A., MIRONOVA, L.V.; OSTANOVSKIY, T.S., dots.; PALLADOV, S.S., dots.; SERGEYEV, M.Ye.; TER-OVAKIMYAN, I.A.; TSEREVITINOV, B.F.; SHCHEGLOV, L.M.; YAKOVLEV, A.I.; BORISOVA, G.A., red.; NEDRISH, D.M., tekhn. red.

[Study of manufactured goods; concise course] Tovarovedenie promyshlennykh tovarov; kratkii kurs. [By] P.R.Abramov i dr. Izd.2., perer. Moskva, Gostorgizdat, 1963. 768 p. (MIRA 16:11)

(Commercial products)

Ostanovskiy, T.S.

ARKHANGEL'SKIY,N.A., dotsent, kandidat tekhnicheskikh nauk; ANDRUSHVICH, D.A., kandidat pedagogicheskikh nauk; OSTANOVSKIY,T.S., dotsent, kandidat tekhnicheskikh nauk; ORLOVA,G.A., redaktor; MEKRISH,D.M., tekhnicheskiy redaktor

[Manual of manufactured goods]Spravochnik tovaroveda promyshlennykh tovarov. Moskva, Gos.izd-vo torgovoi lit-ry. Pt.2.[School and stationery supplies. Photographic supplies. Musical instruments. Radio equipment. Sports goods. Automobiles, motorcycles and bicycles. Hunting equipment. Fishing equipment. Toys.]Shkol'no-pis'mennye i kantseliarskie tovary. Fototovary. Muzykal'nye tovary. Radiotovary. Sportivnye tovary. Avtomobili, mototsikly, velosipedy. Okhotnich'i tovary. Rybolovnye tovary. Igrushki. 1956. 348 p. (MIRA 9:3)
(Manufactures)

STANOVSKIY, Tankhum Samoylovich, VVEDENSKIY, S.F., red.; EL'KINA, E.M., [illegible]

[Paper, cards, and school stationery and office equipment and supplies; manual] Bumaga, karton, shkol'no-pis'mennye i kantseliarskie tovary, spravochnik. Moskva, Gostorgizdat, 1962. 151 p. (MIRA 16:2)

(Office equipment and supplies)
(Schools--Furniture, equipment, etc.)

OSTANOVSKII, Tankhum Samoylovich; GRANOVSKAYA, I.Ye., red.; MEDRISH, D.M., tekhn.red.

[Consumers' goods for recreational purposes] Tovarovedenie kul't-tovarov. Moskva, Gos. izd-vo torg. lit-ry, 1958. 368 p. (MIRA 12:2)

(Russia--Manufactures) (Recreation--Equipment and supplies)

YEGOROV, P.I., prof.; OSTANYUK, F.Ye., kand.med.nauk (Moskva)

Discussion on P.K. Bulatov and M.A. Stukkei's article "Novocaine block of the anterior mediastinum in the treatment of patients with chronic coronary insufficiency." Klin.med. 38 no.12:129-130 D '60. (MIRA 14:2)

1. Chlen-korrespondent AMN SSSR (for Yegorov).
(CORONARY HEART DISEASE) (NOVOCAINE) (LOCAL ANESTHESIA)

CASETTI, M. dr.; DASCALU, Maria, dr.; OSTAP, B. dr.; SMILOVICI, S., dr.; PREDA, L. chim.; DUMITRIU, I., dr.; MUNTEANU, Elena, dr.

Clinical value of the quantitative study of bile sediment collected at intervals of a minute. Med. intern.(Bucur.) 16 no.7:819-826 Jl'64.

1. Lucrare efectuata in Clinica a IV-a medicala, Iasi (director: conf. N.Goldenberg).

GOLDENBERG, N., conf.; BLUM, M, dr.; OSTAP, B., dr.; ABABEI, V., dr.

Gastric and duodenal ulcer: are they 2 different diseases? Med. intern. 15 no.2:153-162 F '63.

1. Clinica medicala, Spitalul "C.I.Parhon", Iasi (director: conf. N. Goldenberg).
(STOMACH ULCER) (DUODENAL ULCER)

GOL'DENBERG, N., dotsent; OSTAP, B.

Clinical and therapeutic observations concerning chronic segmental nonspecific enteritis. Terap.arkh. 34 no.2:90-96 '62.
(MIRA 15:3)

1. Iz terapevticheskoy kliniki (dir. - dotsent N. Gol'denberg), bol'nitsy imeni K. Parkhona, Yasskogo meditsinskogo instituta.
(INTESTINES--DISEASES)

TURCHENKO, P.I.; MESSERLE, P.Ye.; OSTAPCHENKO, A.V.

Heat processing and drying of coal. Koks i khim. no.16:7-10 '61. (MIRA 15:2)

1. Kuznetskiy metallurgicheskiy kombinat.
(Coal)

TURCHENKO, P.I.; MESSERLE, P.Ye.; OSTAPCHENKO, A.V.

Methods for determining the load on the belt conveyor. Koks i khim. no.8:55-56 '62. (MIRA 17:2)

1. Kuznetskiy metallurgicheskiy kombinat.

TURCHENKO, P.I.; OSTAPCHENKO, A.V.

Determination of the accumulated gas content of coke ovens. Koks i khim. no.2:29-30 '61. (MIRA 14:2)

1. Kuznetskiy metallurgicheskiy kombinat.
(Coke ovens) (Gases—Analysis)

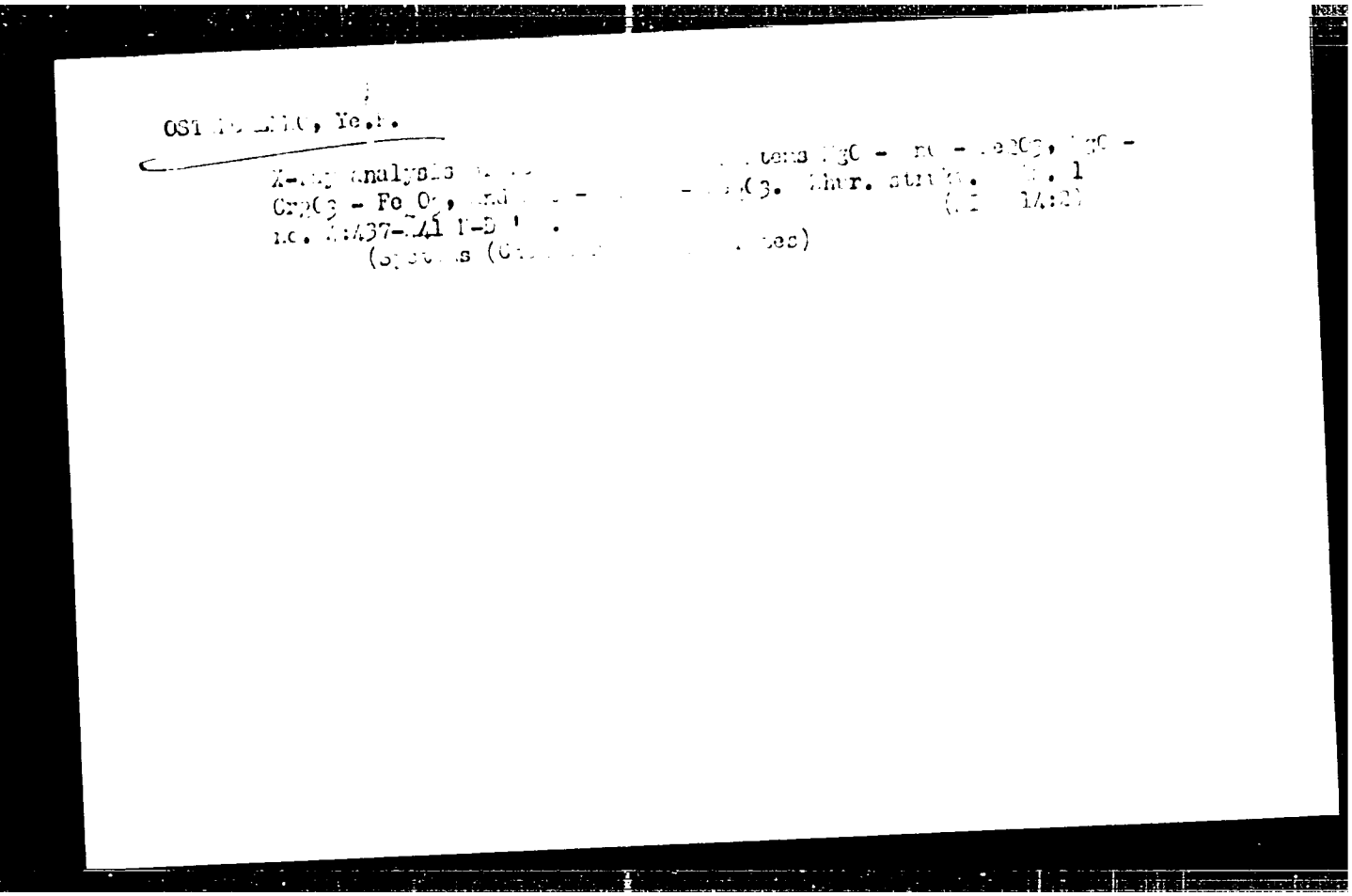
OSTAPCHENKO, N.I.

Modernization of a railroad steam crane. Mashinostroenie no.4: 17 Jl-Ag '63. (MIRA 17:2)

OSTAPCHENKO, N.S.

Crosstie bedding machine. Mashinostroenie no.6:109 N-D '62. (MIRA 16:2)

(Railroads—Ties)



OST [illegible], Ye.P.

X-[illegible] analysis [illegible]
Cr2O3 - Fe2O3, and [illegible] -
no. 4:437-441 [illegible]
(Spectrum (C[illegible]

[illegible]tems MgO - Fe - FeO, MgO -
[illegible](3. Khar. stu[illegible]. [illegible]. 1
([illegible] 14:2)
[illegible]sec)

ZHMUD', Ye.S.; IVANOVA, A.B.; KOTLYAR, A.A.; OSTAPCHENKO, Ye.P.

X-ray diffraction study of alloys in the system BaO - GeO.
Zhur. neorg. khim. 7 no.11:2581-2590 N '62. (MIRA 15:12)
(Barium oxide) (Germanium oxide)
(X rays--Diffraction)

SOV/112-57-5-10957

9 (3)

Translation from: Referativnyy zhurnal. Elektrotekhnika, 1957, Nr 5, p 201 (USSR)

AUTHOR: Ostapchenko, Ye. P.

TITLE: Methods of X-Ray Diffraction Study of Oxide-Coated Cathodes (O metodikakh rentgenostrukturnogo issledovaniya oksidnykh katodov)

PERIODICAL: Tr. n.-i. in-ta, M-vo radiotekhn. prom-sti SSSR, 1956, Nr 1 (29), pp 34-47

ABSTRACT: Methods of x-ray diffraction study of oxide-coated cathodes are described as adapted to crystallographic analysis of double and triple carbonates. Firing of carbonates in air at 700°C to remove the crystallization water permitted obtaining fairly clear x-ray pictures in Evensen's chambers using Cu or Co characteristic radiation. As a result of an investigation of the x-ray pictures obtained, it was found that Ba and Sr carbonates deposited jointly form an "aragonite"-type solid solution with continuously changing lattice constants depending on the components ratio. In the system $BaCO_3$-

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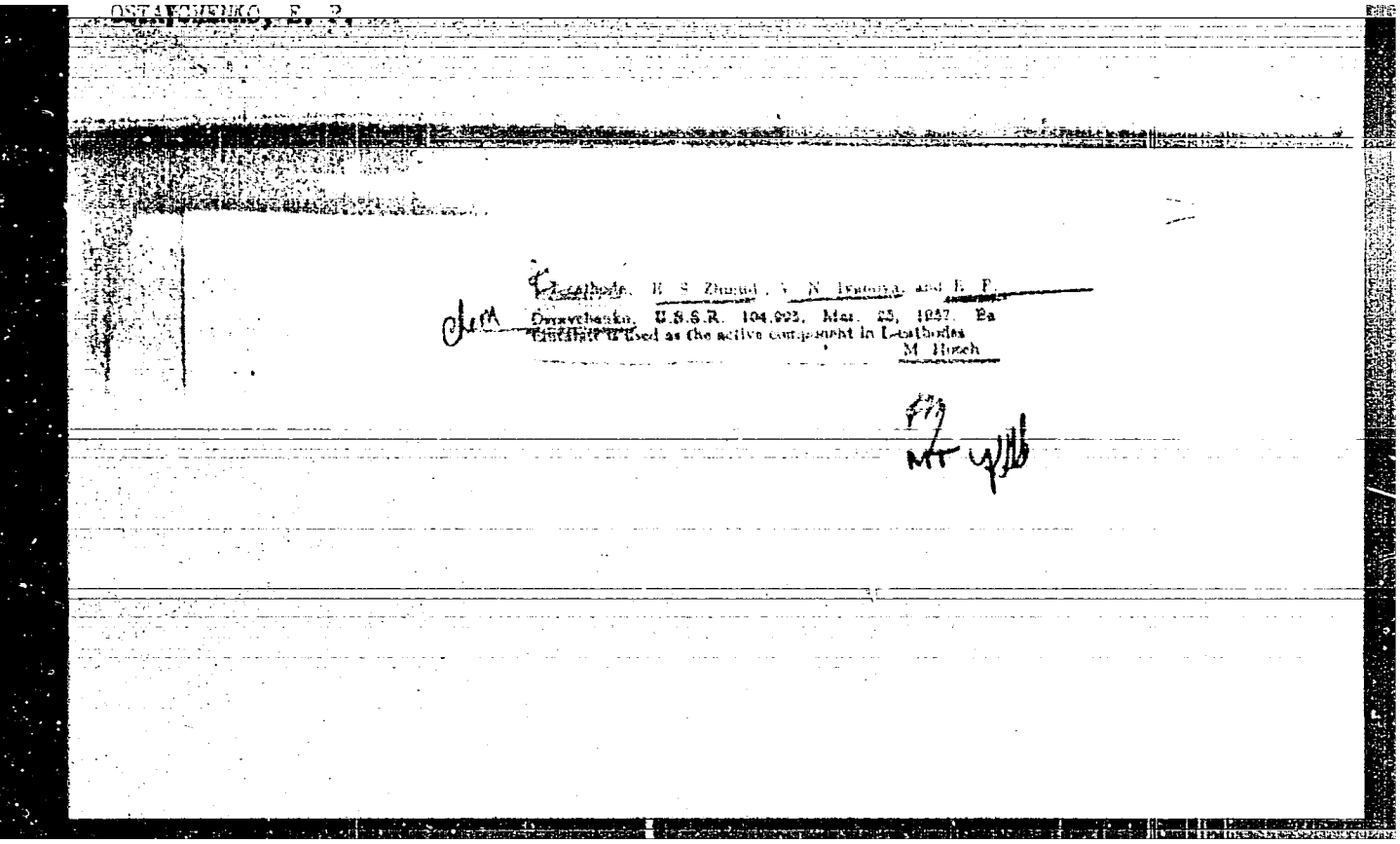
Methods of X-Ray Diffraction Study of Oxide-Coated Cathodes

$CaCO_3$, mixed crystals of "aragonite" ($BaCO_3$ 100-80%) or "calcite" ($BaCO_3$ under 60%) or both systems ($BaCO_3$ 60-80%) are formed; each of the systems is a solid solution of both carbonates. The same pattern is followed by a triple carbonate and the system $SrCO_3$-$CaCO_3$. The presence of SiO_2 impurity introduced by carbonate grinding was detected en passant. To investigate the alkali-earth metal oxides unstable in air, a method was developed of opening the bulb in an inert atmosphere and of protecting the cathodes by a wax layer in a special hermetically sealed chamber with a glass window and hose-type rubber gloves. This method was used to investigate the crystalline structure of the double and triple oxides, the process of decomposition of carbonates into oxides, and the change in composition of double oxides during the cathode operation. It was determined roentgenographically that an admixture of Si results in formation of a Ba_2SiO_4 layer, that Al forms $BaAl_2O_4$, and that W forms Ba_3WO_6. To determine the thickness of such a barrier layer of known



OSTAPCHENKO, E. P.

[illegible] E. S. Zhmud', V. N. Ivanova, and E. P. Ostapchenko, U.S.S.R. 104,922, Mar. 25, 1957. Ba
[illegible] used as the active component in [illegible]
M. Hirsch

MAKLAKOV, A.A.; OSTAPCHENKO, Ye.P.

X-ray investigation of the kinetics of formation of barium calcium aluminates and tungstates. Zhur. struk. khim. 1 no.2:178-182 Jl-Ag '60. (MIRA 13:9)

(Barium calcium aluminate)
(Barium calcium tungstate)

S/078/62/007/011/002/005
B101/B186

AUTHORS: Zhmud', Ye. S., Ivanova, A. B., Kotlyar, A. A., Ostapchenko, Ye. P.

TITLE: X-ray examination of melts in the BaO - GeO_2 system

PERIODICAL: Zhurnal neorganicheskoy khimii, v. 7, no. 11, 1962, 2581-2590

TEXT: Mixtures of $BaCO_3$ with GeO_2 in which both components varied between 0-100 mole% were sintered at 920-1250°C in air or at 920°C in a hydrogen atmosphere. X-ray spectra were recorded under CuK_α radiation using the aragonite type of $BaCO_3$ and rhombohedral GeO_2. The lattice constants of these compounds agreed with published data (A. I. Kitaygorodskiy, Rentgenostrukturnyy analiz melkokristallicheskikh i amorfnykh tel (X-ray Analysis of Fine-crystalline and Amorphous Substances), Gostekhizdat, 1950)). Results. (1) Specimens sintered at 1050°C in air with a $BaCO_3$:GeO_2 ratio = 1:1 formed a single phase. On the basis of data obtained by H. Koelmans, C.M.C. Verhagen (J. Electrochem. Soc., 106, 677 (1959)), the single phase was identified as $BaGeO_3$; it was present in a ratio of up to 1:3. Using $BaCO_3$:GeO_2 = 1:2, $BaGe_2O_5$ was formed, and using ratios of 2:8 and 1:3, the specimen contained unchanged GeO_2 as well as $BaGe_2O_5$. Using

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S/078/62/007/011/002/005
B101/B186

X-ray examination of melts in the...

the ratios 6:4, 2:1, 7:3, 3:1, 4:1, and 5:1, Ba_2GeO_4 was formed which, at 2:1, is present as a single phase; this was identified from the similarity of its structure to that of Ba_2SiO_4 (A. Austin, J. Amer. Ceram. Soc., 30, 218 (1947)). Using even higher proportions of $BaCO_3$ gave rise to lines which were attributed to various barium hydroxides. (2) At 1200°C in air it was found that specimens containing 0-30% GeO_2 and 100-70% BaO produced BaO + Ba_2GeO_4; those with a content of 30-50% GeO_2 produced $BaGeO_3$ + Ba_2GeO_4; those with 50-100% GeO_2 gave rise to $BaGeO_3$ + GeO_2; but $BaGe_2O_5$ is not formed, for at this temperature it readily decomposes into $BaGeO_3$ + GeO_2. (3) At 920°C in a hydrogen atmosphere, using a $BaO:GeO_2$ ratio of 9:1, the phase composition was $BaCO_3$ + X + traces of $BaGeO_4$, where X denotes an unidentified phase probably consisting of various barium hydroxides. For ratios from 5:1 to 7:3 the composition is Ba_2GeO_4 + X; at 2:1 the Ba_2GeO_4 occurs as a single phase; using 6:4 to 1:3 there are traces of Ge along

Card 2/3

with the Ba_2GeO_4; using 2:8 there is Ba_2GeO_4 + Ge, and for 1:9 there is Ge + Ba_2GeO_4. This paper was presented at the VII Nauchno-tekhnicheskoye soveshchaniye po primeneniyu rentgenovskikh luchey k issledovaniyu materialov (7th Scientific and Technical Conference on the Application of X-rays to Examination of Materials). Leningrad, 1961. There are 5 figures and 4 tables.

SUBMITTED: February 23, 1962

Card 3/3

26 #531
9.3120(1003,1137,1140)

S/109/60/005/008/008/024
E140/E555

AUTHORS: Bondarenko B.V. Ostapchenko, Ye P and Tsarev B.M

TITLE: Thermionic Properties of Alkali-Earth Metal Tungstates

PERIODICAL: Radiotekhnika i elektronika 1960, Vol 5 No 8, pp 1246-1253

TEXT: The work functions and structures of a number of compounds, listed in the three tables were studied by means of X-rays and electron-microscopy. The objects were firstly to find the barium tungstate compounds with optimum stability in vacuum at working temperatures of 1400-1700°K secondly to find those with the best emission properties and thirdly to determine the effects of substitution of calcium and strontium for barium in the tungstates. The technology employed has been previously described (Ref.1) It was found that these tungstates may be synthesized by sintering in air as well as in hydrogen as previously done The high temperature stability of Ba_3WO_6 and $BaWO_4$ was already known from the literature a new phase Ba_2WO_5 is found to have the same property. A number of compounds has been studied for the first time It was found that Ba_3WO_6 on tantalum

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S/109/60/005/008/008/024
E140/E555

Thermionic Properties of Alkal:-Earth Metal Tungstates

has better emission properties than on tungsten For the tantalum base the basic tantalate is superior to tungstate There are 3 figures, 3 tables and 3 references 2 Soviet and 1 non Soviet

SUBMITTED December 21, 1959

Card 2/2

ZHMUD', Ye.S.; OSTAPCHENKO, Ye.P.

X-ray diffraction study of the systems $BaO-WO_3$, $BaO-MoO_3$, and $BaO-Ta_2O_5$. Zhur. strukt. khim. 2 no. 1:33-45 Ja-F '61. (MIRA 14:2)
(Barium oxide) (Tungsten oxide) (Molybdenum oxide)
(Tantalum oxide)

BONDARENKO, B.V.; OSTAPCHENKO, Yo.P.; TSAREV, B.M.

Thermionic properties of alkaline earth tungstates. Radiotekh. i elektron. 5 no.8:1246-1253 Ag '60. (MIRA 13:8)
(Thermionic emission) (Alkaline earth tungstates)

89999

5.2200 1043 1273 1136

S/[illegible]/62/002/001/002/006
B107/B216

AUTHORS: Zhmud', Ye S and Ostapchenko, Ye P

TITLE: Radiographic study of the systems BaO - WO_3, BaO - MoO_3, and BaO - Ta_2O_5

PERIODICAL: Zhurnal strukturnoy khimii, v. 2, no. 1, 1961, 33-45

TEXT: The authors radiographically investigated the different phases of the systems BaO - WO_3, BaO - MoO_3, and BaO - Ta_2O_5. The compounds of these systems are of interest for developing thermionic emitters. The samples were prepared by annealing mixtures of $BaCO_3$ and Me oxide (Me = W, Mo, Ta) in the air, or in hydrogen. The samples were heated at 100°C/hr, and after two hr cooled in the furnace. For this investigation, РКД (RKD) cameras (diameter 57.3 mm) were attached to the apparatus УРС-55 (URS-55) and УРС-70 (URS-70) (copper emission). Besides, a device of the type УРС-50И (URS-50I) for recording the ionization of the scattered emission (scanning rate 2°/min) was used. The study of the system BaO - WO_3 at 1,200°C led to

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89999
S/078/61/006/001/002/006
B107/B218

Radiographic study.

the following results. $BaO \cdot WO_3$, tetragonal, a being 5.56, and c being 12.76 A; $3BaO \cdot WO_3$, pseudocubic, face-centered, a being 8.61; $2BaO \cdot WO_3$, structure unknown. The d values for these compounds are given in Table 3. When storing in the open air at room temperature, tungstates remain unchanged for several months. An electron-microscope study with the microscope EM-3 (EM-3) showed that, contrary to the other tungstates, $5BaO\ WO_3$ is needle-shaped. Mixtures with a molar ratio $BaCO_3 : WO_3 < 2:3$ melted on heating. After careful studies, the authors came to the conclusion that a compound $BaO \cdot 2WO_3$ forms, which melts at 940-950°C. $BaO \cdot WO_3$ was found to form already after 2-hr heating at 850°C. Table 4 gives data on the phases of the system $BaO - MoO_3$. The X-ray pictures are very similar to those of tungstates of analog composition. The authors also synthesized $2BaO \cdot MoO_3$ which is, however, unstable and decomposes within a few days. In the system $BaO - Ta_2O_5$, the authors synthesized five barium tantalates, by working with hydrogen atmosphere, and at different temperatures: $5BaO \cdot Ta_2O_5$,

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4 $BaO \cdot Ta_2O_5$, $7BaO \cdot 3Ta_2O_5$, $BaO \cdot Ta_2O_5$, and $3BaO \cdot Ta_2O_5$. It is possible that the compounds $7BaO \cdot Ta_2O_5$ and $3BaO \cdot Ta_2O_5$ are actually $2.5BaO \cdot Ta_2O_5$ and $BaO \cdot 2.5Ta_2O_5$, respectively. The experimental results are given in Table 5. Table 6 shows the d values for the following compounds: $7BaO \cdot 3Ta_2O_5$, $4BaO \cdot Ta_2O_5$, and $5BaO \cdot Ta_2O_5$. Practically, the same results were obtained when heating the system $BaO - Ta_2O_5$ in air to 1,100, 1,200, and 1,300°C. Nevertheless, the authors state that the results concerning the above system are not yet and need a further proof. There are 7 figures, 6 tables, and 7 references: 4 Soviet-bloc and 3 non-Soviet-bloc. The three references to English language publications read as follows: E. G. Steward, H. P. Rooksby. Nature, 157, 548 (1946); R. ... Hughes, P. P. Coppola, T. H. Evans. J. Appl. Physics, 23, no. 6, 635 (1952); E. G. Steward, H. P. Rooksby. Acta crystallogr., 4, 503 (1951).

SUBMITTED: February 28, 1959

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Table 3: Relative intensities and spacings of the roentgenograms of barium tungstates.
Legend: 1) number of the line

$BaO \cdot WO_4$			$2BaO \cdot WO_4$						$3BaO \cdot WO_4$		
№ линии (1)	I	d (Å)	№ линии (1)	I	d (Å)	№ линии (1)	I	d (Å)	№ линии (1)	I	d (Å)
1	100	3,34	1	44	3,50	17	9	1,89	1	100	3,05
2	33	3,17	2	17	3,32	18	26	1,84	2	5	2,58
3	44	2,78	3	100	3,18	19	35	1,78	3	29	2,15
4	68	2,09	4	87	3,07	20	14	1,74	4	38	1,78
5	18	1,97$_6$	5	62	2,97	21	33	1,71	5	7	1,65
6	35	1,85$_9$	6	40	2,84	22	22	1,68	6	13	1,52
7	47	1,69$_9$	7	44	2,72	23	24	1,66	7	7	1,40
8	37	1,67$_9$	8	31	2,64	24	21	1,63	8	12	1,36$_9$
9	16	1,57$_9$	9	22	2,40	25	15	1,59	9	2	1,31$_6$
10	13	1,37$_9$	10	17	2,28	26	11	1,55	10	3	1,27$_9$
11	27	1,35$_9$	11	25	2,21	27	4	1,49$_6$	11	4	1,23$_9$
12	14	1,28$_9$	12	22	2,18	28	15	1,45$_9$	12	3	1,20$_6$
13	8	1,25$_9$	13	49	2,10	29	32	1,43$_6$	13	7	1,15$_4$
14	14	1,23$_6$	14	10	2,07	30	8	1,39$_5$	14	3	1,12$_9$
15	7	1,20$_6$	15	40	1,95	31	14	1,36$_9$			
16	14	1,16$_9$	16	9	1,91	32	13	1,32$_7$			

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Table 4: Experimental results of the system BaC - MoO_3, annealing in air.
Legend: 1) $BaCO_3$:MoO_3 in mole%; 2) phase composition of the samples after 2-hr heating in air to ...°C; *temperature rise within about 4 hr, cooling in the furnace; **temperature rise within about 5 hr, cooling in the furnace; ***temperature rise within about 6 hr, cooling in the furnace; ****temperature rise at 100°C/hr, cooling in the furnace; 3) the sample volatized; следы - traces.

Table 5: Experimental results of the system BaO - Ta_2O_5, annealing in hydrogen.
Legend: 1) phase composition of the samples after 2-hr heating in hydrogen to ...°C; следы - traces.

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① $BaCO_3$: MoO_3 (молярные %)	② Фазовый с 500 °C	остав образцов, прокаленных 800 °C**
90 : 10	$BaCO_3+BaO\cdot MoO_3$+следы MoO_3	$BaCO_3+BaO\cdot MoO_3$
83,34 : 16,66	$BaCO_3+BaO\cdot MoO_3+MoO_3$	
80 : 20		
75 : 25		
70 : 30		
66,67 : 33,33		$BaO\cdot MoO_3+BaC_2O$
60 : 40	$BaO\cdot MoO_3+MoO_3+BaCO_3$	
50 : 50	$BaO\cdot MoO_3+MoO_3+BaCO_3+$ + (?) следы $BaO\cdot 2MoO_3$	
40 : 60	$BaO\cdot MoO_3+BaCO_3+$ + (?) $BaO\cdot 2MoO_3$	$BaO\cdot 2MoO_3$
33,33 : 66,67		
30 : 70	$MoO_3+BaO\cdot MoO_3+$(?)$BaO\cdot 2MoO_3+$ + $BaCO_3$	$BaO\cdot MoO_3+BaO\cdot 2MoO_3$
20 : 80		
10 : 90	$MoO_3+BaO\cdot MoO_3+BaCO_3+$ + (?) $BaO\cdot 2MoO_3$	образец улетучился ③

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Radiographic study

Table 5 cont.

на воздухе в течение 2 часов при температурах: 1000 °C***	1200 °C****
$BaCO_3$ + $2BaO \cdot MoO_3$ + + следы $3BaO \cdot MoO_3$	$BaCO_3$+$3BaO \cdot MoO_3$+ + (?) следы $BaO \cdot MoO_3$ + (?)
	$3BaO \cdot MoO_3$+(?) $BaO \cdot MoO_3$ + +(?)следы $2BaO \cdot MoO_3$+$BaCO_3$+(?)
	$3BaO \cdot MoO_3$ + (?) $BaO \cdot MoO_3$ + +$BaCO_3$+(?)следы $2BaO \cdot MoO_3$+(?)
$BaCO_3$ + $2BaO \cdot MoO_3$ + + следы $3BaO \cdot MoO_3$+ $BaO \cdot MoO_3$	$2BaO \cdot MoO_3$+(?) $BaCO_3$+ +(?) $BaO \cdot MoO_3$
$BaO \cdot MoO_3$ + $2BaO \cdot MoO_3$ + + (?) следы $BaCO_3$	$BaO \cdot MoO_3$+$2BaO \cdot MoO_3$+(?)$BaCO_3$
$2BaO \cdot MoO_3$+$BaO \cdot MoO_3$+(?)$BaCO_3$	$BaO \cdot MoO_3$+$2BaO \cdot MoO_3$+ + (?) следы $BaCO_3$
$BaO \cdot MoO_3$ + $2BaO \cdot MoO_3$	$BaO \cdot MoO_3$ + $2BaO \cdot MoO_3$
$BaO \cdot MoO_3$	$BaO \cdot MoO_3$
$BaO \cdot MoO_3$+следы $BaO \cdot 2MoO_3$	$BaO \cdot MoO_3$+ (?) следы $BaO \cdot 2MoO_3$
$BaO \cdot MoO_3$ + $BaO \cdot 2MoO_3$ + (?)	

③ образец улетучился

③ образец улетучился

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$BaCO_3$: Ta_2O_5	1000°C	(1) Фазовый состав образцов, обр. 1100°C
9 : 1 7 : 1	$5BaO \cdot Ta_2O_5 + (?)$	$5BaO \cdot Ta_2O_5 + (?)$
5 : 1	$5BaO \cdot Ta_2O_5$	$5BaO \cdot Ta_2O_5$
4,5 : 1	$5BaO \cdot Ta_2O_5 +$ + следы $7BaO \cdot 3Ta_2O_5$	$5BaO \cdot Ta_2O_5 +$ + следы $4BaO \cdot Ta_2O_5$
4 : 1		$5BaO \cdot Ta_2O_5 + 4BaO \cdot Ta_2O_5$
3 : 1		$4BaO \cdot Ta_2O_5 + 7BaO \cdot 3Ta_2O_5 +$ + следы $5BaO \cdot Ta_2O_5$
7 : 3	$5BaO \cdot Ta_2O_5 + 7BaO \cdot 3Ta_2O_5 +$ + следы $BaO \cdot Ta_2O_5$	$7BaO \cdot 3Ta_2O_5 + 4BaO \cdot Ta_2O_5$
2 : 1	$7BaO \cdot 3Ta_2O_5 + 5BaO \cdot Ta_2O_5 +$ + следы $BaO \cdot Ta_2O_5 +$ + следы β-Ta_2O_5	
3 : 2	$7BaO \cdot 3Ta_2O_5 +$ следы $BaO \cdot Ta_2O_5 +$ следы β-Ta_2O_5	$7BaO \cdot 3Ta_2O_5 +$ + следы $3BaO \cdot 7Ta_2O_5 +$ + следы β-Ta_2O_5
1 : 1	$7BaO \cdot 3Ta_2O_5 + BaO \cdot Ta_2O_5 +$ $+ \beta$-Ta_2O_5	$7BaO \cdot 3Ta_2O_5 +$ $+ 3BaO \cdot 7Ta_2O_5 + \beta$-$Ta_2O_5$
2 : 3	$7BaO \cdot 3Ta_2O_5 + \beta$-$Ta_2O_5 +$ $+ BaO \cdot Ta_2O_5$	$7BaO \cdot 3Ta_2O_5 +$ $+ 3BaO \cdot 7Ta_2O_5 +$ $+$ следы $BaO \cdot Ta_2O_5 + \beta$-$Ta_2O_5$
3 : 7	β-$Ta_2O_5 + BaO \cdot Ta_2O_5 +$ $+ 7BaO \cdot 3Ta_2O_5$	$3BaO \cdot 7Ta_2O_5 + \beta$-$Ta_2O_5 +$ $+ 7BaO \cdot 3Ta_2O_5 + BaO \cdot Ta_2O_5$
1 : 4		β-$Ta_2O_5 + 3BaO \cdot 7Ta_2O_5 +$ $+ BaO \cdot Ta_2O_5$
1 : 9	β-$Ta_2O_5 + BaO \cdot Ta_2O_5$	β-$Ta_2O_5 + 3BaO \cdot 7Ta_2O_5$
0 : 1	β-Ta_2O_5	β-Ta_2O_5

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Прокаленный в водороде в течение 2 часов при температурах										1600°C
1300°C	1500°C									
$5BaO \cdot Ta_2O_5 + (?)$	$5BaO \cdot Ta_2O_5 + (?)$									$5BaO \cdot Ta_2O_5 + (?)$
$5BaO \cdot Ta_2O_5$	$5BaO \cdot Ta_2O_5 +$ + следы $4BaO \cdot Ta_2O_5$									$5BaO \cdot Ta_2O_5 + 4BaO \cdot Ta_2O_5$
$5BaO \cdot Ta_2O_5 + 4BaO \cdot Ta_2O_5$	$4BaO \cdot Ta_2O_5 +$ $+ 5BaO \cdot Ta_2O_5$									$4BaO \cdot Ta_2O_5 + 5BaO \cdot Ta_2O_5$
$4BaO \cdot Ta_2O_5 +$ + следы $5BaO \cdot Ta_2O_5$	$4BaO \cdot Ta_2O_5$									$4BaO \cdot Ta_2O_5 + 7BaO \cdot 3Ta_2O_5$
$4BaO \cdot Ta_2O_5 + 7BaO \cdot 3Ta_2O_5$	$7BaO \cdot 3Ta_2O_5 +$ $+ 4BaO \cdot Ta_2O_5$									$7BaO \cdot 3Ta_2O_5 + 4BaO \cdot Ta_2O_5$
$7BaO \cdot 3Ta_2O_5$	$7BaO \cdot 3Ta_2O_5 +$ $+ 3BaO \cdot 7Ta_2O_5$									$7BaO \cdot 3Ta_2O_5 + 3BaO \cdot 7Ta_2O_5$
$7BaO \cdot 3Ta_2O_5 + 3BaO \cdot 7Ta_2O_5$										$3BaO \cdot 7Ta_2O_5 + 7BaO \cdot 3Ta_2O_5 + BaO \cdot Ta_2O_5$
$7BaO \cdot 3Ta_2O_5 + 3BaO \cdot 7Ta_2O_5$	$3BaO \cdot 7Ta_2O_5 +$ $+ BaO \cdot Ta_2O_5 +$ $+ следы\ 7BaO \cdot 3Ta_2O_5$									$3BaO \cdot 7Ta_2O_5 + BaO \cdot Ta_2O_5 +$ $+ следы\ 7BaO \cdot 3Ta_2O_5$
$7BaO \cdot 3Ta_2O_5 + BaO \cdot Ta_2O_5 +$ $+ 7BaO \cdot 3Ta_2O_5 +$ $+ следы\ \beta \cdot Ta_2O_5$	$3BaO \cdot 7Ta_2O_5 + \beta \cdot Ta_2O_5 +$ $+ следы\ \alpha \cdot Ta_2O_5 + 7BaO \cdot 3Ta_2O_5 +$ $+ следы\ BaO \cdot Ta_2O_5$	$3BaO \cdot 7Ta_2O_5 + (?)$								$3BaO \cdot 7Ta_2O_5 + BaO \cdot Ta_2O_5 +$ $+ следы\ 7BaO \cdot 3Ta_2O_5 +$ $+ следы\ \alpha \cdot Ta_2O_5$
$3BaO \cdot 7Ta_2O_5 + \beta \cdot Ta_2O_5 +$ $+ следы\ \alpha \cdot Ta_2O_5 + 7BaO \cdot 3Ta_2O_5 +$ $+ следы\ BaO \cdot Ta_2O_5$	$3BaO \cdot 7Ta_2O_5 + \beta \cdot Ta_2O_5 +$ $+ \alpha \cdot Ta_2O_5 + следы\ 7BaO \cdot 3Ta_2O_5 +$ $+ следы\ BaO \cdot Ta_2O_5$	$3BaO \cdot 7Ta_2O_5 + \alpha \cdot Ta_2O_5$								$3BaO \cdot 7Ta_2O_5 + \alpha \cdot Ta_2O_5 +$ $+ следы\ 3BaO \cdot 7Ta_2O_5 +$ $+ следы\ 7BaO \cdot 3Ta_2O_5$
$\beta \cdot Ta_2O_5 + \alpha \cdot Ta_2O_5$	$\beta \cdot Ta_2O_5 + \alpha \cdot Ta_2O_5 +$ $+ 3BaO \cdot 7Ta_2O_5 + (?)$	$\alpha \cdot Ta_2O_5 +$ $+ следы\ 3BaO \cdot 7Ta_2O_5$	$\alpha \cdot Ta_2O_5$							$3BaO \cdot 7Ta_2O_5 + BaO \cdot Ta_2O_5 +$ $+ следы\ \alpha \cdot Ta_2O_5 +$ $3BaO \cdot 7Ta_2O_5 + \alpha \cdot Ta_2O_5 +$ $+ BaO \cdot Ta_2O_5$
$\alpha \cdot Ta_2O_5$	$\alpha \cdot Ta_2O_5$	$\alpha \cdot Ta_2O_5$	$\alpha \cdot Ta_2O_5$	$\alpha \cdot Ta_2O_5$	$\alpha \cdot Ta_2O_5$	$\alpha \cdot Ta_2O_5$	$\alpha \cdot Ta_2O_5$	$\alpha \cdot Ta_2O_5$	$\alpha \cdot Ta_2O_5$	$\alpha \cdot Ta_2O_5 + 3BaO \cdot 7Ta_2O_5$
										$\alpha \cdot Ta_2O_5$

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Table 6: Relative intensities (visual estimation) and spacings of the roentgenograms of barium tantalates.
Legend: 1) number of the lines; c. - strong, ср. - medium, сл. - weak, o. - very.

№ линии	7BaO·3Ta₂O₅		4BaO·Ta₂O₅		5BaO·Ta₂O₅		№ линии	7BaO·3Ta₂O₅		4BaO·Ta₂O₅		5BaO·Ta₂O₅	
	I	d (Å)	I	d (Å)	I	d (Å)		I	d (Å)	I	d (Å)	I	d (Å)
1	o. c.	3,07	c.	3,18	o. c.	3,01	9	c.	$1,35_7$	c.	1,52	ср.	$1,34_4$
2	c.	2,89	c.	3,03	c.	2,12	10	c.	$1,30_9$	c.	$1,36_9$	сл.	$1,22_6$
3	c.	2,10	c.	2,20	o. сл.	2,01	11	c.	$1,19_1$	ср.	$1,32_1$	ср.	$1,13_6$
4	c.	1,82	o.	1,78	c.	1,92					$1,30_6$		
5	c.	1,71	c.	1,75	o. c.	1,74	12	ср.	$1,13_8$	ср.	$1,27_7$		
6	ср.	1,67	ср.	1,68	o. сл.	1,57	13	c.	$1,10_9$	c.	$1,25_6$		
7	c.	1,54	o. сл.	1,62	ср.	1,51	14	c.	$1,09_1$				
8	c.	$1,44_9$	сл.	1,59	ср.	$1,36_6$							

SOV/137-59-4-7945

Translation from: Referativnyy zhurnal, Metallurgiya, 1959, Nr 4, p 84 (USSR)

AUTHORS: Maklakov, A.A., Mel'nikov, A.I., Morozov, A.V., Ostapchenko, Ye.P.

TITLE: A Method of Obtaining Tri-Barium Tungstate

PERIODICAL: Avt. sv. USSR 113045, 15.08.58

ABSTRACT: The described method of obtaining Ba_2WO_6 yields products of greater homogeneity and higher purity than previously known methods. In consists in the joint precipitation of Ba tungstenate and Ba carbonate from an aqueous solution of $(NH_4)_2WO_4$, $(NH_4)_2CO_3$ and $Ba(NO_3)_2$. Three weight portions of $(NH_4)_2WO_4$ and $(NH_4)_2CO_3$ are dissolved in 10 weight portions of water, the solutions are mixed, heated up to 60°C and a solution of 1 weight portion $Ba(NO_3)_2$ and 7 weight portions of water, heated up to 60°C, is added. The precipitate is filtrated, dried for 1 hour at ~100°C and roasted at ~1,400°C. Hereby a $BaWO_4 + 2BaCO_3 = Ba_3.WO_6 + 2CO_2$ reaction takes place. The yield of the finished product is 96 - 98% of the theoretical amount.

Ye.Z.

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S/032/60/026/04/40/046
B010/B006

AUTHORS: 1) Ivanov, K.A., 2) Konstantinov, V.A., 3) Ostapchenko, Ya.P., Reshetnikov, A.M., 4) Avayev, V.V., 5) Mokhov, L.A., Dzedzichek, V.P., 6) Lutugina, N.V.

TITLE: News in Brief

PERIODICAL: Zavodskaya laboratoriya, 1960, Vol. 26, No. 4, pp. 504-506

TEXT: 1) The author reports on the development of X-ray apparatus for measuring stresses of first order in welded designs. The apparatus (Fig., photograph) comprises a switchboard, high voltage transformer, X-ray tube (in a casing), a stand for the latter, a chamber, and mechanisms for vibrating and rotating the specimen. P.M. Lebedev and P.V. Shepelev collaborated in designing the chamber and the stand. A brief description of the apparatus is given. 2) The author recommends the use of an attachment (Fig.) for taking photographs of coarse-crystalline specimens by the 1-KROS camera. The specimen which is fixed by a holder, is shifted by means of a cam which has the shape of opposite Archimedean spirals. Cam rotation shifts the specimen by $\sin^2\alpha$, where α = angle

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BONDARENKO, B.V.; OSTAPCHENKO, Ye.P.

Thermionic properties of alkaline earth tungstates. Nauch.dokl. vys.shkoly; radiotekh.i elektron. no.4:239-245 '58.
(MIRA 12:6)

1. Moskovskiy fiziko-tekhnicheskiy institut.
(Alkaline earth tungstates)

BADZYAKA, M.M.; OSTAPCHIK, S.A. [Astapchyk, S.A.]; PARKHIMOVICH, V.I.

Recrystallization of nickel under induction heating. Vestsi AN BSSR Ser. fiz.-tekh. nav. no. 1:120-125 '61. (MIRA 14:4)
(Nickel—Heat Treatment) (Crystallization)

ONCHUKOV, D.N.; OSTAPCHIK, V.P.

Laboratory studies on heat and moisture transport in soil samples. Pochvovedenie no.7:53-59 Jl '63. (MIRA 16:8)

1. Vysshaya shkola Ministerstva vnutrennikh del.
(Soil moisture) (Soil temperature)

OSTAPCHIK, V.P., agronom

Subirrigation system with tile drains. Gidr. i mel. 13 no.9: 14-23 S '61. (MIRA 14:9)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut gidrotekhniki i melioratsii.

(Irrigation)

OSTAPCHIK, V.P.

Instrument for measuring the moisture content of soils. Tekh.-ekon. inform. no.10:64-65 '59. (MIRA 13:3)

(Soil moisture--Measurement)

OSTAPCHIK, Vladimir Petrovich; DVOYASHOV, V., red.; POKHLEBKINA, M., tekhn. red.

[Subirrigation] Podpochvennoe oroshenie. Moskva, Mosk. rabochii, 1962. 27 p. (MIRA 15:5)
(Moscow Province--Irrigation)

OSTAPCHUK, A.D.

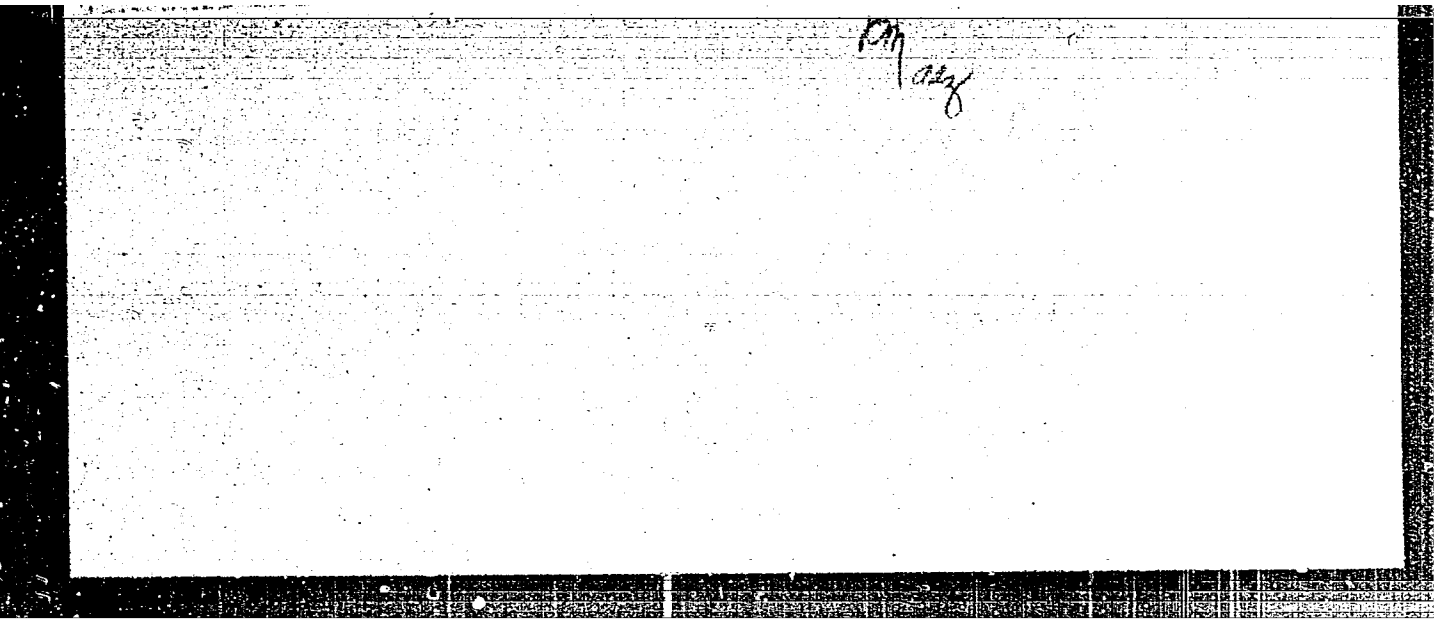
Cases of benign tumors of the stomach. Sov.med. 23 no.7: 127-128 Jl '59. (MIRA 12:11)

1. Iz khirurgicheskogo otdeleniya (zav. - kand.med.nauk Ya.S. Meyerzon) Nekeikanskoy rayonnoy bol'nitsy (glavnyy vrach A.D. Ostapchuk) Magadanskoy oblasti.
(STOMACH neoplasms)

OSTAPCHUK, A.D.

Studies on the use of antibiotics in practical medicine. (MIRA 11:11)
Sov.med. 22 no.11:133-134 N '58

1. Iz rayonnoy bol'nitsy Susumanskogo rayona Magadanskoy oblasti (glavnyy vrach A.D. Ostapchuk).
(ANTIBIOTICS, ther. use in med. dis. (Rus))

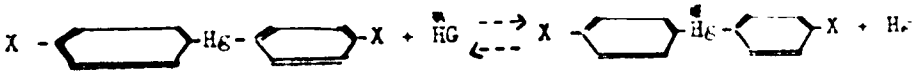


AUTHORS: Reutov, O. A., and Ostapchuk, G. M. 20-117-5-28/54

TITLE: Isotopic Exchange Reaction Between Symmetric Organomercuric Compounds of the Aromatic Series and Metallic Mercury Labelled by Hg^{203} (Reaktsiya izotopnogo obmena simmetrichnykh rtutnoorganicheskikh soyedineniy aromaticheskogo ryada s metallicheskoy rtut'yu, mechennoy Hg^{203}).

PERIODICAL: Doklady AN SSSR, 1957, Vol. 117, Nr 5, pp. 826-828 (USSR)

ABSTRACT: The authors carried out a systematic investigation of the reactivity of various types of organomercuric compounds in the reactions of the isotopic exchange with metallic and haloid mercury. In present paper in this connection diaryl-mercury was investigated under the conditions given in the title. It was surprising that the symmetric organomercuric compounds react with metallic mercury under very mild conditions



The velocity of the reactions depends considerably on the character of X. The reaction conditions are given. The

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following figures can give an explanation of this velocity. The equilibrium for diphenyl-mercury is reestablished in xylene at 140° within 30 minutes. In dioxane at 60° within 2 hours and 45 minutes. For di-p-anisyl-mercury: in dioxane at 60° within one hour. In benzene at 20° within 16 hours. The exchange is accelerated by the rise of temperature, as well as within certain limits by the increase of the mercury excess. Furthermore the dependence of the velocity of the isotopic exchange on the structure of the substituent X was determined. The experiments were carried out in pyridine. The results are given in table 1. They show that the velocity of the reaction of the isotopic exchange depends on the structure of the substituent X and increases in the order

$$O_2N,\ Cl < H < CH_3 < OCH_3$$

The preciseness of the experiments does not facilitate the detection for the authors which compound, dinitro-phenyl-mercury or dichlorophenylmercury reacts quicker with metallic

Isotopic Exchange Reaction Between Symmetric Organomercuric Compounds of the Aromatic Series and Metallic Mercury Labelled by Hg^{203}

mercury. The mild reaction conditions are obvious, especially in the case of di-anisyl-mercury which reacts already in the cold. Apparently the reaction takes place directly between the molecules of the diaryl- and the metallic mercury. For this speak also the results of the isotopic exchange of the phenyl-p-nitrophenyl-mercury. After the isotopic equilibrium has been obtained, in the reaction mixture only the initial phenyl-p-nitrophenyl-mercury was found. If the reaction passes the stage of formation of free phenyl- and nitrophenyl-radicals,

$$(C_6H_5)_2Hg \quad \text{and} \quad (O_2NC_6H_4)_2Hg$$

are bound to exist in the reaction mixture besides the mentioned initial substance.
There are 1 table, and 5 references, all of which are Slavic.

Card 3/4

Isotopic Exchange Reaction Between Symmetric Organomercuric Compounds of the Aromatic Series and Metallic Mercury Labelled by Hg^{203} 20-117-5-28/54

ASSOCIATION: State University imeni M. V. Lomonosov, Moscow (Moskovskiy gosudarstvennyy universitet im. M. V. Lomonosova).

PRESENTED: October 25, 1957, by A. N. Nesmeyanov, Academician

SUBMITTED: October 24, 1957

Card 4/4

REUTOV, O.A.; OSTAPCHUK, G.M.; REMOVA, V.A.

Isomerization of a free dideutero-n-propyl radical in solutions.
Izv. AN SSSR. Ser.khim. no.3:519-524 Mr '64. (MIRA 17:4)

1. Moskovskiy gosudarstvennyy universitet im. M.V.Lomonosova.

5 (3)

AUTHORS: Reutov, O. A., Ostapchuk, G. M. SOV/7[illegible]

TITLE: The Reaction of the Isotopic Exchange Between Aryl-mercury Chlorides and Metallic Mercury Marked by Hg^{203} (Reaktsiya izotopnogo obmena arilmerkurokhloridov s metallicheskoy rtut'yu, mechennoy Hg^{203})

PERIODICAL: Zhurnal obshchey khimii, 1959, Vol 29, Nr 5, pp 1611-1617 (USSR)

ABSTRACT: In a previous paper (Ref 1) the following reaction was described: $(p\text{-}XC_6H_4)_2Hg + H\dot{g} \rightleftharpoons (p\text{-}XC_6H_4)_2H\dot{g} + Hg$. The reaction rate depended on the substituent X and increased in the following order: $O_2N < COOC_2H_5 < Cl < H < CH_3 < CCH_3$. The present paper investigates the reaction $p\text{-}XC_6H_4\text{-}HgCl + H\dot{g} \rightleftharpoons \rightleftharpoons p\text{-}XC_6H_4\text{-}H\dot{g}Cl + Hg$. It took place in a solution of aryl-mercury chloride in anhydrous pyridine at 60° and at 1500 rpm/min approximately of the mixer. After certain intervals samples were taken, the colloidal mercury centrifuged off, the aryl-mercury-chloride precipitated by means of water

Card 1/3

The Reaction of the Isotopic Exchange Between Aryl-mercury Chlorides and Metallic Mercury Marked by Hg^{203} 007/79-29-5-11/7

acidified with hydrochloric acid, filtered and recrystallized. The substance dissolved again in organic liquid (chloroform, acetone) was dropped on a standard filter, and this thin layer coated with plexiglass lacquer. The radioactivity was determined by means of the counter MS-1. The results of repeated experiments are given in a table. The authors observed a reaction rate higher than that of diaryl compounds as well as an increase in the reaction rate in the order $O_2N < C_2H_5OCO <$ $< Cl < H, CH_3$. Since free radicals are not formed in monoaryl compounds even by irradiating the solution with ultraviolet light, the reaction mechanism is explained by the formation of a four-membered, activated complex:

$$Ar\text{-}Hg\text{-}Cl + {}^{\bullet}Hg \rightleftharpoons Ar \begin{matrix} Hg \\ \diamond \\ Cl \quad Hg \end{matrix} \rightleftharpoons Ar\text{-}{}^{\bullet}Hg\text{-}Cl + Hg.$$

There are 1 table and 2 references.

Card 2/

The Reaction of the Isotopic Exchange Between [illegible]
Aryl-mercury Chlorides and Metallic Mercury Marked by [illegible]

ASSOCIATION: Moskovskiy gosudarstvennyy universitet (Moscow State University)

SUBMITTED: April 9, 1956

Card 3/3

REUTOV, O.A.; OSTAPCHUK, G.M.

Isotopic exchange reaction between symmetric aromatic mercury compounds and the metallic mercury Hg^{203}. Dokl. AN SSSR 117 no.5:826-828 D '57. (MIRA 11:3)

1. Moskovskiy gosudarstvennyy universitet im. M.V. Lomonosova. Predstavleno akademikom A.N.Nesmeyanovym.
(Mercury organic compounds) (Mercury--Isotopes)

REUTOV, O. A., OSTAPCHUK, G. M., U Yan-Tsay, SMOLINA, T. A. and KROL', F., (Moscow State University im. M. V. Lomonosov)

"The Use of Radioactivity Mercury Hg for Studying the Exchange Reaction of a Carbon Atom." p. 27

Isotopes and Radiation in Chemistry, Collection of papers of 2nd All-Union Sci. Tech. Conf. on Use of Radioactive and Stable Isotopes and Radiation in National Economy and Science, Moscow, Izd-vo AN SSSR, 1958, 380pp.

This volume published the reports of the Chemistry Section of the 2nd AU Sci Tech Conf on Use of Radioactive and Stable Isotopes and Radiation in Science and the National Economy, sponsored by Acad Sci USSR and Main Admin for Utilization of Atomic Energy under Council of Ministers USSR Moscow 4-12 Apr 1957

OSTAPCHUK, G. M.: Master Chem Sci (diss) -- "A study of the reaction of isotope exchange of diaryl-mercury compounds and aryl-mercury halides with metallic mercury tagged with Hg^{203}". Moscow, 1958. (Moscow State Order of Lenin and Order of Labor Red Banner State U im Lomonosov), 100 copies (KL, No 1, 1959, 111)

OSTAPCHUK, I.

Our experience in building beet pulp processing stations.
Sil'. bud. 11 no.5:12-13 My '61. (MIRA 14:6)

1. Glavnyy inzh. Staro-Konstantinovskoy mezhkolkhoznoy stroitel'noy organizatsii Khmel'nitskoy oblasti.
(Staro-Konstantinov--Bagasse)

OSTAPCHUK, I. F. Cand Med Sci -- (diss) "Electrocardiographic indicators in hypertension patients, and their dynamics during sanatorium and climatic ~~cures~~ on the ~~southern~~ shore of the Crimea." Simferopol', 1957. 18 pp (Crimean State Med Inst im Stalin), 200 copies (KL, 14-58, 117)

OSTAPCHUK, I.F. (Yalta)

Change in electrocardiographic data in patients with hypertension during health-resort and climatotherapy on the southern shore of the Crimea. Vrach.delo no.7:679-683 Jl '57. (MLRA 10:8)

1. Nauchno-issledovatel'skiy institute klimatologii i klimatoterapii im. I.M.Sechenova i kafedra chastnoy patologii i diagnostiki vnutrennikh bolezney (zav. - prof. A.B.Shakhnazarov) Krymskogo meditsinskogo instituta

(CRIMEA--CLIMATOLOGY, MEDICAL)
(ELECTROCARDIOGRAPHY) (HYPERTENSION)

Translation from Referativnyy zhurnal M... ...

AUTHORS: Agaletskiy, F. N., Ostapenko, I. V.

TITLE: The Reduction Rate of Ferric Oxide of Krivoy Rog Quartzite as a Magnetic Oxide as a Function of Temperature, Composition of Gas, and Particle Size (Skorost' vosstanovleniya okisi zheleza v krivorozhskogo kvartsita v magnitnuyu okis' v zavisimosti ot temperatury sostava gaza i razmera chastits)

PERIODICAL: Byul ...chno-tekhn. inform. Ukr. n.-i. in-t metallov ..., 2, p. ...

ABSTRACT: Lean ferrous quartzites of the hematite variety may be concentrated by the method of magnetic separation, after having been crushed to completely expose the grains, and by the method of magnetic roasting. Depending on the procedures employed during roasting and subsequent cooling, the end product may contain predominantly magnetite or the ...ssite-hematite (γ-Fe_2O_3). The process of magnetic roasting of Krivoy Rog quartzites (...4% $Fe_{...}$, ...8% FeO, and ... SiO_2) was investigated, the quartzites being taken in six different fractions (...

Card ...2

The Reduction Rate of Ferric Oxide of Krivoy Rog Quartzite (cont.)

-0.5 + 0.1 mm). The quartzites were treated in a suspended state with coke or producer gas at temperatures of 700-800°C, and were then cooled to room temperature in an atmosphere of N_2. After the products of roasting had been analyzed chemically, the degree of magnetization [$\frac{\%Fe^{+2}}{\%Fe_{total}} \cdot 100\ \% \geq Fe_{total}$ 33%] was evaluated. The experimental data are presented in the form of graphs. It is shown that the temperature of roasting and reducing the dimensions of the quartzite particles tends to increase the degree of magnetization of the end product. In order to obtain complete reduction of the Fe_2O_3 of quartzite to Fe_3O_4 (equivalent to maximum magnetization) with the aid of coke or producer gas, 2-3 sec of roasting at a temperature of 800° are required in the case of the -0.5 + 0.2 mm fraction, and 0.5-0.5 sec in the case of the -0.2 + 0.1 mm fraction. It is pointed out that the results of these experiments may be utilized in designing industrial installations for roasting of quartzite in a suspended (fluidized) state.

Card 2/2

KHITRO, Ye.V.; KOSTOMAROV, M.I.; OSTAPCHUK, L.I.

Rapid method of detecting Fe_2O_3 in a calcarous-iron compound.
Ogneupory 25 no.5:237-238 '60. (MIRA 14:5)

1. Pervoural'skiy dinasovyy zavod.
(Iron oxides--Analysis) (Pyrites--Analysis)

OSTAPCHUK, M.V., polkovnik

Military reform of 1924-1925 and the nations antiaircraft troops.
Vest.protivovozd.obor. no.3:73-76 Mr '61. (MIRA 14:7)
(Antiaircraft artillery)

OSTAPCHUK, M.V., polkovnik

Vest. protivovozd. oborony no.7:47 Jl '61.
(MIRA 14:8)
(World War, 1939-1945—Aerial operations)

KOTLYAR, Leon Iosifovich; KESTEL'MAN, Nusya Yakovlevich; OSTAPCHUK, Nikolay Vasil'yevich; VAYNBERG, Anton Antonovich; DENISENKOVA, L.M., red.; SOKOLOV, A.Ya., prof., doktor tekhn. nauk, red.

[Design and operation of sieves in screening machines] Konstruktsiia i ekspluatatsiia sit proseivaiushchikh mashin. Moskva, 1963. 130 p. (MIRA 17:7)

MELAMED, M., inzh.; OSTAPCHUK, N., inzh.

Operation of ZSM-10 sieve-air separators and their shortcomings.
Muk.-elev. prom. 26 no. 12:17-18 D '60. (MIRA 13:12)

1. Tashkentskiy mel'nichnyy kombinat No.2.
(Separators (Machines))

MARGOVSKIY, Ye., inzh.; OSTAPCHUK, N., inzh.

Pneumatic-tube transportation in the grain-cleaning section of the Tashkent Grain Milling Combine. Muk.-elev. prom. 26 no. 11:13 N '60. (MIRA 13:11)

1. Tashkentskiy mel'kombinat (for Margovskiy). 2 Odesskiy tekhnologicheskiy institut im.I.V. Stalina (for Ostapchuk).
(Tashkent--Flour mills) (Pneumatic-tube transportation)

VOLOSHIN, M.Ya., student; DYUMIN, O.V., student; OSTAPCHUK, N.A., student

Effect of a vagosympathetic block on compensation mechanisms in loss of blood. Vrach.delo no.6:655 Je '57. (MLRA 10:8)

1. Kafedra normal'noy fiziologii (zav. - prof. F.N.Serkov) Odesskogo meditsinskogo instituta
(HEMORRHAGE) (LOCAL ANESTHESIA)

OSTAPCHUK, N.V.

Effect of the feed characyeristics of the product on the performance of roller mills. Izv.vys.ucheb.zav.; pishch.tekh. no.5:92-97 '59. (MIRA 13:4)

1. Odesskiy tekhnologicheskiy institut imeni I.V.Stalina, kafedra tekhnologicheskogo oborudovaniya.
(Flour mills)

PANCHENKO, A.V.; OSTAPCHUK, N.V.; KOTLYAR, L.I.

Effect of the load volume of the roll mill on the intensity of grain crushing. Izv.vys.ucheb.zav.; pishch.tekh. no.4: 117-123 '59. (MIRA 13:2)

1. Odesskiy tekhnologicheskiy institut imeni I.V.Stalina. Kafedra tekhnologicheskogo oborudovaniya.
(Grain-milling machinery)

OSTAPCHUK, N. V., Cand Tech Sci (diss) -- "The productivity of a roll stand as a function of the input of product to the rolls". Odessa, 1[illegible] pp (Min Higher and Inter Spec Educ Ukr SSR, Odessa Tech Inst im I. V. Stalin), 200 copies (KL, No 4, 1970, 125)

1. OSTAPCHUK, P. F.

2. USSR (600)

4. Drug Industry

7. Let us carry out the decisions of the 19th Party Congress. Med. prom. no. 6, 19[illegible].

9. Monthly List of Russian Accessions, Library of Congress, February, 19[illegible]. Unclassified.

1. OSTAPCHUK, P. F.

2. USSR (60?)

4. Medical Instruments and Apparatus

7. Let us carry out the decisions of the 19th Party Congress. Med. prom. no. 6 1952.

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

PA 11/1.9764

OSTAPCHUK P. F.

USSR/Medicine - Industry and Occupation
Medicine - Drugs, Legislation

Jan/Feb 49

"Tasks of the Medical Industry," P. F. Ostapchuk, Deputy Min of Health USSR, 6 ½ pp

"Med Prom SSSR" No 1

Summarizes results achieved in 1948 and outlines plans for 1949. Mentions following factories: "Akrikhin," imeni Karpov, "Alkaloidnyy," "Krasnogvardeyets," imeni Semashko, Kursk Chemicophar, Novosibirsk Chemicophar, Mozhaysk Medico-Instr, Gor'kiy Medico-Instr imeni Lenin, Leningrad Optico-Mech, and "[redacted]."

44/49T54
FDB

62/49T71

USSR/Medicine - Drugs, Standardization Jul/Aug 48
Medicine - Factories

"The Specialization of Chemicopharmaceutical Factories," P. F. Ostapchuk, Dept Min of Sanitation USSR, 7 pp

"Med Prom SSSR", No 4

Discusses existing problems and tasks indicated by Yo. I. Smirnov, Min of Sanitation, in decree No 563, 13 Sep 48, "The Specialization and Standardization of Chemicopharmaceutical Factories," and points out basic conditions which influenced the Minister's decision. Stresses necessity of [illegible] 62/49T71
TDD

USSR/Medicine - Drugs, Standardization (Contd) Jul/Aug 48

Improvement in the medical industry and expansion of its production. Workers' tasks are to increase production of medical supplies, improve quality of medical instruments, drugs, and equipment, and at the same time decrease cost of production.

TDD 62/49T71

OSTAPCHUK, P. F.

[illegible], D. T.

Medical Instruments and Apparatus

Let us extend the fight to save raw materials, fuel and electric power. [illegible],
1952.

9. Monthly List of Russian Accessions, Library of Congress, August, 1952 1953, Uncl.

ABTARCHIT, I. F.

Drug Trade

Let us extend the fight to save raw materials, materials, fuel and electric power. [illegible]ed. from. No. 3, 1952.

9. Monthly List of Russian Accessions, Library of Congress, August 1952 1958, Uncl.

PYATAYEV, M.; OSTAPCHUK, V.

Building hollow walls with adobe blocks. Sel'.stroi. 11 no.10: 17-18 O '56. (MLRA 9:12)

1. Nachal'nik stroyuchastka no.11 tresta "Dzhaksystroy." (for Pyatayev) 2. Prorab uchastka no.11 tresta "Dzhaksystroy" (for Ostapchuk).
(Walls) (Building, Adobe)

NOVATSKIY, A.A., inzh.; OSTAPCHUK, V.G., inzh.

Using girder jigs in assembling precast reinforced concrete construction elements. Nov. tekh. i pered. op. v stroi. 20 no.11:7-10 N '58. (MIRA 11:11)

(Precast concrete construction) (Jigs and fixtures)