ZYAT'KOVA, L. K. Canc Geol-Mineral Sci — (diss) "The use of geologo-geomorphological methods for explaining the local structures of the central area of the Western Siberian lowland," Novosibirsk, 1960, 17 pp, 150 cop (Tomsk State U im V. V. Kuybyshev) (KL, 43-60, 117)

ZYAT'KOVA, L.K.

Method for structural and geomorphological investigations in the central part of the West Siberian Plain. Geol. i geofiz. no. 9:13-20 '60. (MIRA 14:2)

1. Institut geologii i geofiziki Sibirskogo otdeleniya AN SSSR, Novosibirsk.
(West Siberian Plain--Geology, Structural)

PETROV, Ye.N.; ZYAT'KOVA, L.K.

Methods and results of geological and geomorphological investigations carried out in order to study structures in the central areas of the West Siberian Plain. Trudy SNIIGGIMS no.9:87-96 '60. (MIRA 14:7)
(West Siberian Plain--Geology, Structural)

ZYAT'KOVA, Luiza Konstantinovna; NIKOLAYEV, V.A., kand.geol.-mineral.nauk, otv.red.; ALEKSANDROVSKIY, B.M., red.; LOKSHINA, O.A., tekhn.red.

[Geological and geomorphological methods of detecting local structures, the central part of the West Siberian Plain.] Geologo-geomorfologicheskie metody vyiavleniia lokal'nykh struktur; tsentral'naia chast' Zapadno-Sibirskoi nizmennosti. Novosibirsk, Izd-vo Sibirskogo otd-niia AN SSSR, 1961. 76 p. (Akademiia nauk SSSR. Sibirskoe otdelenie. Institut geologii i geofiziki. Trudy, no. 14).
(MIRA 16:9)

ZYAT'KOVA, L.K.; PETROV, Ye.N.

Analyzing longitudinal river profiles to find structures in the West Siberian Lowland. Izv.AN SSSR.Ser.geog. no.3:89-90 My-Je '61. (MIRA 14:5)

(West Siberian Lowland—Rivers)

ZYAT'KOVA, L.K.

Geology and geomorphology of the Asea uplifts region (Vakh Basin). Trudy SNIIGGIMS no.7:101-107 '61. (MIRA 16:7)

(Vakh Valley--Geology)

ZYATKOVA, L.K.

The Fifth Plenum of the Geomorphological Commission. Izv. AN SSSR. Ser. geog. no.4:136-138 Jl-Ag '65. (MIRA 18:8)

ZIL'BER, M.K. (Chelyabinsk); ZYAT'KOVA, L.R. (Chelyabinsk)

Composition of the gaseous phase of blast furnace tap cinder.
Izv. AN SSSR. Otd. tekh. nauk. Met. i topl. no.5:66-68 S-O '62.
(MIRA 15:10)

(Slag—Analysis)

KARPOV, Boris Dmitriyevich; ZYATYUSHKOV, A.I., red.; LEBEDEVA, G.T., tekhn. red.

[Work hygiene in industrial painting] Gigiena truda pri maliarnykh rabotakh. Leningrad, Medgiz, 1963. 38 p. (MIRA 16:11)

(Painting, Industrial--Safety measures)

BURLOVA, Lidiya Yakovlevna; LEBEDEVA, Aleksandra Filippovna; TARASOVA, Anna Vladimirovna; ZYATYUSHKOV, A.I., red.; BUGROVA, T.I., tekhn.red.

[Work hygiene in plants of the textile industry; cotton-spinning and weaving manufacture] Gigiena truda na predpriiatiiakh tekstil'noi promyshlennosti: v bumagopriadil'nom i tkatskom proizvodstve. Leningrad, Medgiz, 1963. 49 p. (MIRA 16:12)

(COTTON MANUFACTURE--HYGIENIC ASPECTS)

ABRAMOVICH, Grigoriy Borisovich, prof.; ZYATYUSHKOV, A.I., red.

[For parents about epileptic children] Roditeliam o detiakh, boleiushchikh epilepsiei. Izd.2. Leningrad, Izd-vo "Meditsina," 1964. 37 p. (MIRA 17:5)

SHAGOVA, Yekaterina Mikhaylovna; ZYATYUSHKOV, A.I., red.; LEBEDEVA, Z.V., tekhn. red.

[Guard children's eyesight; eye injuries and their prevention] Beregite zrenie detei; povrezhdeniia glaz i ikh preduprezhdenie. Leningrad, Medgiz, 1962. 22 p. (MIRA 15:8)
(EYE--WOUNDS AND INJURIES) (EYE--PROTECTION)

ROZENFEL'D, Aleksandr Semenovich; ZYATYUSHKOV, A.I., red.; LEBEDEVA, G.T., tekhn. red.

[Water and health; hygiene of water supply] Voda i zdorov'e; gigiena vodosnabzheniia. Leningrad, Medgiz, 1963. 29 p. (MIRA 16:10)

(WATER SUPPLY--HYGIENIC ASPECTS)

TONKONOGIY, Iosif Moiseyevich; ZYATYUSHKOV, A.I., red.; BUGROVA, T.I., tekhn. red.

[Speech disorders, their prevention and treatment] Rechevye rasstroistva, ikh preduprezhdenie i lechenie. Leningrad, Medgiz, 1963. 34 p. (MIRA 17:3)

SHAPOVAL, Alekseĭ Nikitovich; ZYATYUSHKOV, A.I., red.; LUGROVA, T.I., tekhn. red.

[Tick-borne encephalitis; prevention] Kleshchevoi entsefalit; profilaktika. Leningrad, Medgiz, 1963. 56 p. (MIRA 17:3)

RETNEV, Vladimir Mikhaylovich; ZYATYUSHKOV, A.I., red.; ONOSHKO, N.G., tekhn. red.

[Work hygiene in concrete production] Gigiena truda pri izgotovlenii betona. Leningrad, Medgiz, 1963. 99 p. (MIRA 16:9)

(CONCRETE PLANTS--SAFETY MEASURES)

SOV/177-58-4-22/32

AUTHORS: Zyatyushkov, A.I., Colonel of the Medical Corps, Candidate of Medical Sciences, and Tsukerman, B.G.

TITLE: The Accommodations and Sick Rate of Submarine Crews (Usloviya obitayemosti i zabolevayemosti lichnogo sostava na podvodnykh lodkakh) According to Data From Foreign Publications (Po dannym inostrannoy pechati)

PERIODICAL: Voyenno-meditsinskiy zhurnal, 1958, Nr 4, pp 74-80 (USSR)

ABSTRACT: The article is founded on data from American, German and Italian literature. There is 1 table.

Card 1/1

ZYATYUSHKOV, Alfey Ivanovich; DEMBO, A.G., red.

[Reduction of pulmonary gas volumes to normal conditions and calculations of some proper values; principles and tables] Privedenie legochnykh ob"emov gazov k normal'nym usloviiam i raschety nekotorykh dolzhnykh velichin; obosnovanie i tablitsy. Leningrad, Meditsina, 1965. 137 p. (MIRA 18:9)

PLEKHANOV, A.F.; PODVAL'NYY, S.I.; ZYAZEV, A.D.; KALUGINA, A.T.

Removing copper from the cobalt oxide production cycle. TSvet. met. 32 no.2:49-52 F '59. (MIRA 12:2)
(Cobalt metallurgy) (Copper)

APPROVED FOR RELEASE: Thursday, September 26, 2002 CIA-RDP86-00513R002065720016-2"

AUTHOR: Zyazev, A.D. 136-2-14/22

TITLE: Simplified Method of Protecting Plant from Corrosive Solution and Pulps in Cobalt Production. (Uproshchennyy sposob zashchity apparatury ot agressivnykh rastvorov i pul'p kobal'tovogo proizvodstva)

PERIODICAL: Tsvetnyye Metally, 1957, No. 2, pp. 77-78 (USSR)

ABSTRACT: The disadvantages (slowness, complexity, expense, etc.) of the method used, e.g. at the Ufaleyskiy Nickel Works, for protecting plant metalwork from the corrosive action of material being processed to obtain cobalt are outlined. A method is proposed by N.V. Aleshintsev based on the use of type 500-600 Portland cement with bricks and plates. Examples given of applications to different shapes of units include pipe connections, Pachuca tanks, collectors, cisterns for transporting hypochlorite and suction filters. Per unit of protected area this method cost about about a tenth compared with the method described by K.A. Polyakov in "Non-Metallic Chemically Stable Materials", pp. 80-86. It is recommended for wide use not only in cobalt production. There are 6 figures.

1/1

AVAILABLE: Library of Congress

PIMENOV, L.I.; ZYAZEV, A.D.

Electric melting reduction of converter slags from nickel production. TSvet. met. 38 no.1:34-36 Ja '65 (MIRA 18:2)

APPROVED FOR RELEASE: Thursday, September 26, 2002 CIA-RDP86-00513R002065720016-2

SOV/136-59-2-11/24

AUTHORS: Plekhanov, A.F., Podval'nyy, S.I., Zyazev, A.D. and Kalugina, A.T.

TITLE: Elimination of Copper from the Cobalt-Oxide Production Cycle (Vyvod medi iz tsikla pri proizvodstve okisi kobal'ta)

PERIODICAL: Tsvetnyye Metally, 1959, Nr 2, pp 49-52 (USSR)

ABSTRACT: The existing method at the Ufaleyskiy Nikelevyy Zavod (Ufaley Nickel Works) for removal of copper from cobalt solutions is to precipitate with soda ash. This gives a copper cake with 0.3 to 0.5% cobalt which has to be reprocessed, leading to deleterious accumulation of copper in the first stage of cobalt-oxide production. The work described had the object of exploring the possibilities of using sodium hyposulphate for the precipitation, giving a copper cake which could be eliminated from the production cycle. Laboratory experiments showed (Fig 1) that 300% (or 7.5 kg per kg copper) of the theoretical amount of hyposulphate was necessary to precipitate all the copper independently of acidity (0.04 to 0.05% Co in the precipitate), that the best temperature for precipitation was 80 to 90°C

Elimination of Copper from the Cobalt-Oxide Production Cycle

the best hyposulphate concentration 10 to 20% (Fig 2) and duration 12 to 15 minutes (Fig 3). On the basis of these satisfactory results production trials on a mechanically-stirred vessel of 4.2 m^3 capacity were organized. In one series iron-free solutions were used, in the other the solutions contained iron. The results (table) were substantially the same in both series but the duration of the subsequent operation of cobalt precipitation by chlorine took 30% longer with the iron-free solutions. The consumption of hyposulphate could be reduced to 4.8 kg/kg copper by increasing the time interval between successive additions to 30 minutes and the cobalt content in the cake was low enough (0.1% max) to make further treatment unnecessary. The yield of copper cake was twice as low as with soda ash. The authors conclude that the possibility of copper

Copper from the Cobalt-Oxide Production Cycle

precipitation with sodium hypo-sulphite has been established. There are 3 figures and 1 table.

Card 3/3

RUDNEV, G.P.; TKACHEV, P.G.; ZYAZEV, A.K.; LATSINIK, G. Ye.; SHCHERBAK, Yu.F.

Evaluation of some biochemical indices in epidemic hepatitis.
Kaz. med. zhur. no.5:37-40 S-O'63 (MIRA 16:12)

1. Kafedra infektsionnykh bolezney (zav. - deystvitel'nyy chlen AMN SSSR prof. G.P. Rudnev) TSentral'nogo instituta usovershenstvovaniya vrachey.

TKACHEV, P.G., dotsent; ZIAZEV, A.K., starshiy nauchnyy sotrudnik

Evaluation of some biochemical indexes in infectious hepatitis. Lech. infekts. bol'. no.4:53-70 '60. (MIRA 14:5)
(HEPATITIS, INFECTIOUS)

ZYAZEV, V.; KAMENSKAYA, A.; MALYSHEV, A.; SHUSTOV, A.

Using the system of closed circuits in organizing interurban freight haulage. Avt. transp. 38 no.9:11-14 S '60. (MIRA 13:9)
(Transportation, Automotive)

ZYAZEV, V.

Interurban trucking and vehicles used for it. Avt. transp. 37 no.10: 23-26 O '59. (MIRA 13:2)

1. Nauchno-issledovatel'skiy institut avtomobil'nogo transporta.
(Transportation, Automotive)

ZYAZEV, V.; LIKHACHEV, I.

Direct centralized automotive transportation of ammonium nitrate.
Avt.transp. 42 no.12:8-9 D '64. (MIRA 18:4)

BILIBINA, N., kandidat ekonomicheskikh nauk; ZYAZEV, V., inzhener; SEREGIN, V., inzhener.

The efficient organization of centralized hauling in the region of Ivanovo Province. Avt.transp.33 no.10:5-7 O '55. (MLRA 9:1)
(Ivanovo Province--Transportation, Automotive)

ZYAZEV, V., inzhener; SHUSTOV, A., inzhener.

Intercity automotive transportation in Poland. Avt.transp. 35 no.3:39 Mr '57. (MLRA 10:5)
(Poland--Transportation, Automotive)

BASIN, S.; ZYAZEV, V.; SMIRNOV, O.; SHUSTOV, A.

Organizing centralized intercity freight haulage by means of public automotive transportation. Avt. transp. 36 no. 6:4-9 Je '58. (MIRA 11:7)

(Transportation, Automotive)

ANDRIYEVSKIY, M.; ZYAZEV, V.

Efficient sugar beet transportation. Avt.transp. 40 no.4:15-16 Ap '62. (MIRA 15:4)

(Tambov Province--Sugar beets--Transportation)

ZYAZEV, V.; NAKASHIDZE, D.

New method for sugar-beet transportation. Avt. transp. 41 no.5:10-11 My '63. (MIRA 16:10)

(Sugar beets—Transportation)

ZYAZEV, V.

Centralized agricultural freight transportation. Avt.transp. 42 no. 4:15-17 Ap '64. (MIRA 17:5)

ZYAZEV, V.; MALYSHEV, A.; SHUSTOV, A.

Develop and improve intercity freight haulage by means of small shipments. Avt. transp. 35 no.5:10-13 My '57. (MLRA 10:6)
(Transportation, Automotive)

ZYAZEV, V.A.

Organization of traffic on interurban routes. Trudy MIEI no.20: 115-125 '63. (MIRA 17:3)

IVANOVSKIY, L.Ye.; ILYUSHCHENKO, N.G.; ZYAZEV, V.L.; PLEKHANOV, A.F.

Lower-valence rare earth oxychlorides. Trudy Inst.elektrokhim. UFAN SSSR no.1:55-60 '60. (MIRA 15:2)

(Rare earth chlorides)
(Electrolysis)

ZYAZEV, V.L. (Sverdlovsk); FURASHEVA, M.N. (Sverdlovsk)

Gases in copper ingots and their determination. Izv. AN SSSR Met. i gor. delo no.2:132-136 Mr-Ap'64 (MIRA 17:8)

ZYAZEV, V.L. (Sverdlovsk); ZAGREBEL'NYY, B.N. (Sverdlovsk); TANUTROV, I.M. (Sverdlovsk)

Gas content of wire bar copper. Izv. AN SSSR. Otd. tekh. nauk. Met. i gor. delo no.1:80-86 Ja-F '63. (MIRA 16:3)
(Copper—Analysis) (Gases in metals)

S/137/62/000/008/011/065
A006/A101

AUTHORS: Ivanovskiy, L. Ye., Ilyushchenko, N. G., Plekhanov, A. F., Zyazev, V. L.

TITLE: Separating rare-earth metals by fused salt electrolysis

PERIODICAL: Referativnyy zhurnal, Metallurgiya, no. 8, 1962, 27, abstract 8G188 ("Tr. In-ta elektrokhimii, Ural'skiy fil. AN SSSR", 1961, no. 2, 131 - 134)

TEXT: Separation of rare-earth metals was investigated in fused bath electrolysis containing a mixture of rare-earth chlorides. It was found that at all the D_c (0.25 - 1.5 amp/cm^2) and temperatures (850 - 870; 560 - 700°C) investigated, alloys are obtained which are considerably impoverished of La (3 - 5 weight %) and enriched with Ce (up to 80%). The total Pr and Nd amount remains practically constant. The nature of cathodic deposits varies noticeably with temperature. Their salt content varies from 75 to 80% at 560°C and from 30 to 40% at 700°C. There are 11 references.

[Abstracter's note: Complete translation] G. Svodtseva

Card 1/1

ZYAZEV, V.L., Cand Tech Sci -- (diss) "Physico-chemical properties of the [redacted] simplest vanadium slags." Sverdlovsk, 1958, 12 pp. (Min of Higher Education USSR. Ural Polytech Inst im S.M. Kirov) 150 copies (KL, 32-58, 108)

27213
S/081/61/000/014/010/030
B106/B110

5.2300

AUTHORS: Ivanovskiy, L. Ye., Ilyushchenko, N. G., Zyazev, V. L., Plekhanov, A. F.

TITLE: Oxychlorides of rare earths of lowest valency

PERIODICAL: Referativnyy zhurnal. Khimiya, no. 14, 1961, 97, abstract 14B15. (Tr. In-ta elektrokhimii. Ural'skiy fil. AN SSSR, no. 1, 1960, 55 - 60)

TEXT: The authors studied the reaction of a mixture of chlorides of rare earths with mishmetal in the presence of O_2. They separated a mixture of oxychlorides of lowest valency, M_2OCl_2 (M = La, Ce, Pr, Nd). They studied some properties of these compounds. In the electrolysis of chloride baths where the possibility of a contact of O_2 of air and moisture with the melt was not excluded, it was shown that the oxidation of the salts apparently yielded oxy cations $M_2OCl_2^{2+}$ which were discharged on the cathode and, thus, were transformed to the oxychlorides of lowest valency, M_2OCl_2. The anodic

Oxychlorides of rare earths of lowest ...

dissolution of the mishmetal was also examined. In the anodic dissolution, the chlorides of bivalent elements are formed in the melts, whose reaction with O_2 also leads to the formation of oxychlorides of the composition mentioned. [Abstracter's note: Complete translation.]

X

APPROVED FOR RELEASE: Thursday, September 26, 2002 CIA-RDP86-00513R002065720016-2"

"Electric Conductivity of Vanadium Slags,"
lecture given at the Fourth Conference on Steelmaking, A.A. Baikov Institute of Metallurgy, Moscow, July 1-6, 1957

ZYAZEV, V.L.; SPEVAK, N.D.; DONSKOY, A.Ye.; TANUTROV, I.N.

Vacuum treatment of liquid copper. TSvet. met. 35 no.7:32-37 Jl '62. (MIRA 15:11)
(Copper--Metallurgy) (Vacuum metallurgy)

AUTHORS: Yesin, O. A., ~~Zyazev, V. L.~~

SOV/78-3-9-23/38

TITLE: The Electric Conductivity of the Systems V_2O_5-PbO, V_2O_5-CaO, and V_2O_5-MgO (Elektroprovodnost' sistem V_2O_5-PbO, V_2O_5-CaO i V_2O_5-MgO)

PERIODICAL: Zhurnal neorganicheskoy khimii, 1958, Vol 3, Nr 9, pp 2143-2149 (USSR)

ABSTRACT: The electric conductivity in the systems V_2O_5-PbO, V_2O_5-CaO, and V_2O_5-MgO was investigated within the temperature range of the liquid and solid state. Three congruently melting compounds occur in the system V_2O_5-PbO: $V_2O_5 \cdot 2PbO$, $V_2O_5 \cdot 3PbO$, and $V_2O_5 \cdot 8PbO$. The electric conductivity is investigated in pure V_2O_5 and PbO as well as in nine melts containing 23,5-95% PbO. The isothermal lines of the electric conductivity and the values of the activation energy E were compared as well in the phase diagram. Two maxima occur on the curve of the activation energy: 14,4 k.cal/mol in the case of 87% PbO and 15,2 k.cal/mol in the case of 98% PbO. These maxima correspond to the occurrence of

The Electric Conductivity of the Systems V_2O_5-PbO, V_2O_5-CaO, and V_2O_5-MgO

the following chemical compounds: $V_2O_5 \cdot 3PbO$ and $V_2O_5 \cdot 8PbO$. The electric conductivity is increased with rising PbO-content up to 45%. The electric conductivity in the system V_2O_5-CaO was investigated for melts of V_2O_5-CaO with 11,7 - 37% CaO. The melt has ionic conductivity at 23,4% CaO. The compound $V_2O_5 \cdot CaO$ exists in the liquid melt. In the initial period the electric conductivity decreases rapidly to 10% CaO in these melts, probably in consequence of the dissociation of V_2O_5 at higher temperatures. The system V_2O_5-MgO is completely analogous to the system V_2O_5-CaO. The melt has ionic conductivity at a MgO content of 20,7%. MgO, CaO, and PbO influence the structure of V_2O_5 in the melt. The form of the isothermal lines of the electric conductivity and the curves of the activation energy indicate the presence of the following compounds in the melt of the systems investigated: $V_2O_5 \cdot 3PbO$, $V_2O_5 \cdot 8PbO$, $V_2O_5 \cdot CaO$, $2V_2O_5 \cdot 3MgO$. There are 6 figures, 3 tables, and 12 references,

The Electric Conductivity of the Systems V_2O_5-PbO, V_2O_5-CaO, and V_2O_5-MgO

5 of which are Soviet.

ASSOCIATION: Ural'skiy filial Akademii nauk SSSR, Institut metallurgii (Ural Branch, AS USSR, Institute of Metallurgy)

SUBMITTED: January 15, 1957

31671
S/631/60/000/001/008/014
B117/B147

5.4700

AUTHORS: Ivanovskiy, L. Ye., Ilyushchenko, N. G., Zyazev, V. L., Plekhanov, A. F.

TITLE: Oxychlorides of rare earths of lowest valencies

SOURCE: Elektrokhimiya rasplavlennykh solevykh i tverdykh elektrolitov, no. 1, 1960, 55-60

TEXT: The interaction of oxygen and rare earth metals with chloride melts of rare earths was studied. In the first series of experiments, the authors used a misch metal (% by weight: 22.5 La, 53.0 Ce, 4.53 Pr, and 16.3 Nd) obtained by electrolysis, and a chloride mixture (% by weight: 26 La, 53.9 Ce, 4.85 Pr, 11.42 Nd) obtained by chlorination of oxides of rare earths with gaseous chlorine in the presence of carbon. The result was a deposit of oxychlorides of lowest valency: Me_2OCl_2, where Me stands for La, Ce, Pr, and Nd. This mixture is slowly hydrolyzed in water to give hydrates of highest valency. When boiling, decomposition proceeds rather quickly. During heating, the product readily reacts with acids, particularly

Oxychlorides of rare earths of lowest ...

nitric acid. It oxidizes easily at 300-400°C forming mixtures of oxides of rare earths at higher temperatures. In another series of experiments, the reaction of oxygen with chlorides of rare earths in an open bath at 580 - 600°C was studied. A graphite vessel was used as electrolyzer and anode, and molybdenum rods were used as cathodes. The electrolyte was a mixture of chlorides of rare earths and potassium chloride (50% $MeCl_3$ and KCl). The amount of lowest oxychlorides formed in all experiments depended on the amount of products in the bath obtained by decomposition of salts under the action of oxygen and moisture. Finally, the misch metal in the potassium chloride melt was anodically dissolved at 850°C in an open and a closed bath. The authors always found oxychlorides of lowest valencies with a ratio equal to that of initial substances. Summary: In the case of interaction between oxygen, chloride melts of rare earths, and misch metal mixtures of low-valency oxychlorides of rare earths were obtained. The summational reaction can be written down: $4MeCl_3 + 3O_2 + 8Me = 6\ Me_2OCl_2$. The formation of oxychlorides on the cathode may be explained by the formation of Me_2OCl_4 soluble in the melt by

Oxychlorides of rare earths of lowest ...

decomposition of salts. The formation of $Me_2OCl_2^{++}$, whose discharge on the cathode yields Me_2OCl_2, is well possible. At the same time, direct reaction of decomposition products with the metal deposited on the cathode is also possible. Bivalent chlorides of rare earths are formed in the melt due to anodic dissolution of the misch metal. Their reaction with oxygen also yields oxychlorides of the same composition. There are 4 figures, 2 tables, and 5 references: 4 Soviet and 1 non-Soviet.

X

Card 3/3

ZYAZEV, V.L.; YESIN, O.A.

Viscosity and density of the systems V_2O_5-CaO and V_2O_5-MgO. (MIRA 11:11)
Izv.Sib.otd. AN SSSR no.9:3-9 '58.

1. Ural'skiy filial Akademii nauk SSSR.
(Vanadium oxides) (Viscosity) (Fusion)

APPROVED FOR RELEASE: Thursday, September 26, 2002 CIA-RDP86-00513R002065720016-2"

24567 S/137/61/000/005/005/060
A006/A106

5 4700

AUTHORS: Ivanovskiy, L.Ye., Ilyushchenko, N.G., Zyazev, V.L., Plekhanov, A.F.

TITLE: On oxychlorides of rare earths of lower valences

PERIODICAL: Referativnyy zhurnal. Metallurgiya, no. 5, 1961, 16, abstract 5A94 ("Tr. In-ta elektrokhimii. Ural'skiy fil. AN SSSR", 1960, no.1, 55-60)

TEXT: An investigation was made of the interaction of mixtures of rare earth chlorides and "mishmetall" in the presence of O_2. A mixture of low valence oxychlorides, Me_2OCl_2, was singled out where the metals were La, Ce, Pr, Nd. Some of their properties were investigated. It is shown that in electrolysis of chloride bathes, where the possibility of a contact of atmospheric O_2 and moisture with the melt was not excluded, $Me_2OCl_2^{2+}$ oxycations are apparently formed as a result of the oxidation of salts. The discharge of these oxycations on the cathode causes the formation of oxychlorides of lower valence, the Me_2OCl_2. The anodic dissolving of mishmetal was investigated. During the anodic dissolution in the melts 2-valent chlorides of rare earths are formed, whose interaction with O_2 causes also the formation of oxychlorides of the same composition. T. K.
[Abstracter's note: Complete translation]

Card 1/1

APPROVED FOR RELEASE: Thursday, September 26, 2002 CIA-RDP86-00513R002065720016-2"

ZYAZEV, V.L. (Sverdlovsk); TANUTROV, I.N. (Sverdlovsk)

The gas content of anodic copper. Izv. AN SSSR. Otd. tekh. nauk. Met. i gor. delo no.2:54-58 Mr-Ap '63. (MIRA 16:10)

ZYAZEV, V.L.; TANUTROV, I.N.

Behavior of impurities and hydrogen on the fire refining of copper. TSvet. met. 36 no.8:80-83 Ag '63. (MIRA 16:9)
(Copper--Metallurgy) (Gases in metals)

ZYAZEV, V.L.; YESIN, O.A.

Viscosity and density of the systems V_2O_5 - Fe_2O_3, V_2O_5 - CaO and V_2O_5 - CaO - Fe_2O_3. Izv. Sib. otd. AN SSSR no.10:13-20 '58. (MIRA 11:12)

1.Ural'skiy filial AN SSSR.
(Systems (Chemistry)) (Viscosity) (Fusion)

SOV/137-59-3-5058 D

Translation from: Referativnyy zhurnal. Metallurgiya, 1959, Nr 3, p 24 (USSR)

AUTHOR: Zyazev, V. L.

TITLE: Physicochemical Properties of the Simplest Vanadium Slags (Fiziko-khimicheskiye svoystva prosteyshikh vanadiyevykh shlakov)

ABSTRACT: Bibliographic entry on the author's dissertation for the degree of Candidate of Technical Sciences, presented to the Ural'skiy politekhn. in-t (Ural Polytechnic Institute), Sverdlovsk, 1958

ASSOCIATION: Ural'skiy politekhn. in-t (Ural Polytechnic Institute), Sverdlovsk

Card 1/1

AUTHORS: Zyazev, V. L., Yesin, O. A. 78-3-6-15/30

TITLE: Viscosity and Density in the V_2O_5-PbO-System
(V_2O_5-PbO)

PERIODICAL: Zhurnal Neorganicheskoy Khimii, 1958, Vol. 3, Nr 6, pp. 1381-1385 (USSR)

ABSTRACT: The viscosity and the density of the enamels of the V_2O_5-PbO-system including the pure oxides of V_2O_5-PbO were determined.
The determinations of density were performed by heating and cooling the enamel.
The dependence of temperature on the viscosity and density in the V_2O_5 enamels with a PbO content of 28,3-88,9% was investigated.
The density of the enamels of the V_2O_5-PbO-system was investigated at temperatures of 800, 1000, and 1200°C.
At 68% PbO a minimum is observed in the density curve and in alloys with 79,7% a break was found. Probably the atomic groupings occur in the enamel under formation of the following chemical compounds:

Viscosity and Density in the V_2O_5-PbO-System 78-3-6-15/30

$V_2O_5 \cdot 2PbO$, $V_2O_5 \cdot 3PbO$, $V_2O_5 \cdot 8PbO$.

It was found that in the enamel of the system at 1000°C a relatively high specific conductivity and little viscosity are prevailing. The existence of the above-mentioned chemical compounds was confirmed by the curves of viscosity and the determinations of density of the enamels of the V_2O_5-PbO-system. There are 3 figures, 2 tables, and 10 references, 7 of which are Soviet.

ASSOCIATION: Institut metallurgii Ural'skogo filiala Akademii nauk SSSR (Institute of Metallurgy, Ural Branch AS USSR)

SUBMITTED: July 29, 1957

AVAILABLE: Library of Congress

1. Enamels--Viscosity 2. Enamels--Density 3. Viscosity--Temperature factors 4. Density--Temperature factors

Card 2/2

YESIN, O.A.; ZYAZEV, V.L. (Sverdlovsk)

Electric conductivity of binary systems composed of vanadium pentoxide with iron oxide and copper oxide and a number of intricate alloys. Izv.AN SSSR. Otd.tekh.nauk no.6:7-11 Je '58. (MIRA 11:8)

1. Institut metallurgii Ural'skogo filiala AN SSSR.
(Vanadium alloys--Electric properties)

APPROVED FOR RELEASE: Thursday, September 26, 2002 CIA-RDP86-00513R002065720016-2"

YESIN, O.A.; ZYAZEV, V.L.

Electric conductivity of oxides of vanadium, lead, and copper.
Zhur.neorg.khim. 2 no.9:1998-2002 S '57. (MIRA 10:12)

1.Ural'skiy filial AN SSSR, Institut metallurgii AN SSSR.
(Vanadium oxides--Electric properties)
(Lead oxides--Electric properties)
(Copper oxides--Electric properties)

ZYAZEV, V.L.

57-1-2/30

AUTHORS: Zyazev, V. L., Yesin, O. A.

TITLE: On the Influence of the Short Range Order on the Character of Conductivity (O vliyanii blizhnego poryadka na kharakter provodimosti).

PERIODICAL: Zhurnal Tekhnicheskoy Fiziki, 1958, Vol. 28, Nr 1, pp. 18-22 (USSR)

ABSTRACT: The authors refer to the works of A. F. Ioffe (reference 1) and Regel' (reference 1). These stated that for the character of the conductivity the short and not long range order of the atoms is of great importance. The measurement results of the electric conductivity of binary alloys of V_2O_5 with PbO, CaO and MgO in various compositions and at various temperatures are given. The measurements were carried out in open resistance furnaces (in the air) with alternating current, 1000 c frequency, usual resistance bridge (as zero instrument served a cathode oscillograph). As V_2O_3 when being cooled oxidizes to V_2O_5 the measurements with the second heating were more reliable and only these results are given here. The authors show that the transition from the

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On the Influence of the Short Range Order on the Character of Conductivity

57-1-2/30

semiconductor mechanism to the ion mechanism in the systems begins with unequal MeO concentrations. In alloys of V_2O_5 with CaO it begins at 23,4 % CaO, in the V_2O_5-MgO-system at 27,7 % MgO and with V_2O_5-PbO at 71 %. PbO. In all cases the transition-begin corresponds with the first chemical compound in the respective system. Such a regularity points out the important part of the short range order in the atomic distribution for the realization of the semiconductor electric conductivity in alloys. The character of the polytherms for the electric conductivity shows that in the V_2O_5-PbO, V_2O_5-CaO and V_2O_5-MgO alloys the semiconductor mechanism passes over to an ion mechanism with compounds which correspond to the chemical compounds with the least second component (MeO). The regularity determined proves the opinion of Ioffe.
There are 4 figures, and 13 references, 6 of which are Slavic.

Card 2/3

On the Influence of the Short Range Order on the Character of Conductivity 57-1-2/30

ASSOCIATION: Institute for Metallurgy of the Ural Branch AN USSR, Sverdlovsk (Institut metallurgii Ural'skogo filiala AN SSSR, Sverdlovsk).

SUBMITTED: March 26, 1957

AVAILABLE: Library of Congress

Card 3/3

ZYAZEV, V.L.; TANUTROV, I.N.

Effect of vacuuming on the composition and properties of cast copper. TSvet. met. 36 no.5:30-34 My '63. (MIRA 16:10)

APPROVED FOR RELEASE: Thursday, September 26, 2002 CIA-RDP86-00513R002065720016-2"

SOV/24-58-6-2/35

AUTHORS: O.A. Yesin and V.L. Zyazev

TITLE: Electrical Conductivity of the Binary Vanadium Pentoxide-Iron Oxide and Vanadium Pentoxide-Copper Oxide Systems, and of some other Complex Systems (Elektroprovodnost' dvoynykh sistem pyatiokisi vanadiya s okisyu zheleza i okis'yu medi i ryada slozhnykh splavov)

PERIODICAL: Izvestiya akademii nauk SSSR, Otdeleniye tekhnicheskikh nauk, 1958, Nr 6, pp 7-11 (USSR)

ABSTRACT: The electrical conductivity of several oxide systems was investigated to ascertain the extent to which they constituted semi-conductors in the solid and liquid states. The quasi-binary systems V_2O_5 - Fe_2O_3 and V_2O_5 - CuO were studied together with three compositions based on the ternary system V_2O_5 - CaO - Fe_2O_3 (see the table on p 10). Two quaternary melts (V_2O_5 32.8%, CaO 38%, SiO_2 19%, MgO 10%, and V_2O_5 18.6%, CaO 23.4%, SiO_2 27.2%, MnO 10%) of industrial importance were also investigated. A carbon element resistance furnace was used for the research, the reaction between the carbon and metallic oxides at high temperatures being prevented by a porcelain lining

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Electrical Conductivity of the Binary Vanadium Pentoxide-Iron Oxide and Vanadium Pentoxide-Copper Oxide Systems, and of some other complex systems

tube. The conductivity measurements were made over temperature ranges covering both liquid and solid states. The melts were held in corundum crucibles. The resistance was determined by means of a bridge fed with a 100 c.p.s. current, using a cathode ray oscillograph to indicate the balance conditions. Platinum wire electrodes were employed for immersion into the oxide mixtures. The accuracy of the measurements was 10 to 15%. The experimental mixtures were heated to the maximum temperature and held at that temperature for 15 to 20 minutes, after which the melt was cooled and reheated. The most reliable conductivity measurements were obtained during the second heating cycle, and only these values are discussed in the paper. Chemical analysis after the final cooling showed that dissociation had occurred to a high degree, thus explaining the vigorous gas evolution observed during melting. The composition containing 15% of Fe_2O_3 was a critical one in the V_2O_5 - Fe_2O_3 system:

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below this composition vanadium pentoxide dissociated, while above this composition iron oxide decomposed. Decomposition in the V_2O_5 - CuO system was confined mainly to the copper oxide. The temperature dependence of the electrical conductivity of the V_2O_5 - Fe_2O_3 system is illustrated in Fig 1, graphs 1,2 and 3 corresponding to Fe_2O_3 contents of 15, 19.4 and 30.5% respectively. It can be seen that: (a) the conductivity decreased with temperature over the 550-650°C range, except when the iron oxide content was very high; this negative temperature coefficient is attributed to the saturation of those impurity levels to which solid V_2O_5 owes its p-type conductivity; (b) above 650°C the conductivity increased smoothly with temperature, but in some instances a decrease in conductivity was observed in the 800-850°C range. The reason for this behaviour is not understood: but according to Martinet (Ref 3) and Grunewald (Ref 4) it can be attributed to the admixture mechanism of

Electrical Conductivity of the Binary Vanadium Pentoxide-Iron Oxide and Vanadium Pentoxide-Copper Oxide Systems, and of some other complex systems

conduction by which Fe_2O_3 is characterised. The presence of FeO as a decomposition product was believed to explain why many of the investigated compositions did not display this conductivity decrease; (c) the conductivity increase is accelerated at temperatures of about 900 to 950°C. The weight losses observed at high temperatures with pure V_2O_5, and with the V_2O_5 - rich melts indicated considerable dissociation of V_2O_5 and Fe_2O_3. The decomposition products V_2O_3 and FeO appeared to influence the temperature/conductivity relationships; for most of the alloys the curves for the liquid state are not exponential in character and therefore the activation energies could not be determined. The conductivity isotherms reproduced on Fig 2 indicate an accelerated increase of the electric conductivity at 15% Fe_2O_3. Above this composition conductivity due to Fe_2O_3plays the predominant part. For the V_2O_5 - CuO system, the conductivity-temperature relationships of the 10, 20, 30, 40 and 50% CuO alloys

Electrical Conductivity of the Binary Vanadium Pentoxide-Iron Oxide and Vanadium Pentoxide-Copper Oxide Systems, and of some other Complex systems

are shown in Fig 3, (graphs 1 to 4 respectively). In this case, the conductivity also decreased with temperature over the 500 to 625°C range, but the decrease was much larger than that observed in the previous system. (The table, p 9, gives the factors by which the electric conductivity of various alloys dropped in this temperature range: for the 30% CuO alloy this factor amounted to 80.) Compositions containing 10 to 35% CuO had a high conductivity which was attributed to an increased transfer of electrons from the copper oxide to those impurity levels which determine the p-type conductivity of solid V_2O_5. The decrease in conductivity observed within this temperature range might have been intensified by the volume changes which, according to Lucas et al. (Ref 1), occur when alloys containing up to 35% CuO are heated to 650-700°C. At temperatures higher than 800-850°C the conductivity increased with increasing temperature. This effect is attributed to the presence of the dissociation

Electrical Conductivity of the Binary Vanadium Pentoxide-Iron Oxide and Vanadium Pentoxide-Copper Oxide Systems, and of some other Complex Systems

products, mainly Cu_2O. The conductivity isotherms of the V_2O_5 - CuO system reproduced on Fig 4 (graphs 2 to 7) exhibit two sharp maxima at 25 and 60% CuO. The first maximum was observed only at 500-600°C. The second maximum, whose magnitude increased with temperature, is probably due to decomposition of CuO which brings about an increased concentration of the current carriers. The conductivity isotherms of the ternary and quaternary systems are shown on Figs 5 and 6 respectively: in these cases, no decrease in the conductivity with rise of temperature was observed. The experimental findings indicated that all compositions of the two studied quasi-binary systems behave as semi-conductors both in the

Electrical Conductivity of the Binary Vanadium Pentoxide-Iron Oxide and Vanadium Pentoxide-Copper Oxide Systems, and of some other Complex Systems

solid and in the liquid states.

There are 6 graphs, 3 tables and 13 references, of which 6 are Soviet, 4 English, 2 German and 1 French.

ASSOCIATION: Institut Metallurgii Ural'skogo Filiala AN SSSR (Institute of Metallurgy Ural Branch A.S. USSR)

SUBMITTED: February 14, 1957

ZYAZIKOV, B.Kh., mayor zapasa; GRINCHENKO, V.Ye., polkovnik, red.; BELYAYEV, M.M., podpolkovnik, red.; SUKHOMLINOV, P.M., mayor, red.; GOLUBEV, G.O., polkovnik zapasa, red.; PAVLOV, P.I., polkovnik v otstavke, red.; YABLOKOVA, O.I., red.

[Gold Stars of the Chechen-Ingush A.S.S.R.; sketches on Heroes of the Soviet Union] Zolotye zvezdy Checheno-Ingushetii; ocherki o Geroiakh Sovetskogo Soiuza. Groznyi, Checheno-Ingushskoe knizhnoe izd-vo, 1964. 310 p.
(MIRA 18:4)

BITEKHTINA, V.A.; ZYBIN, A.S.; KNYAGINICHEV, N.I.

Developing fisheries on the Ik-Saltaim-Tenis Lake system.
Izv. Omsk. otd. Geog. ob-va no.5:131-136 '63. (MIRA 17:5)

ZYAZIN, G.

Locating the point of contact of a line and an electric wire.
Radio no.6:45 Je '56. (MLRA 9:8)

1. Zaporozhskaya DRTS.
(Electric lines)

ZYAZIN, I.G.

Significance of work arrangement for patients in a dispensary serving a rural population. Sov.med. 26 no.10:144-145 O '62. (MIRA 15:12)

1. Iz Vorontsovskoy uchastkovoy bol'nitsy (glavnyy vrach S.M. Yershov) Voronezhskoy oblasti.
(PUBLIC HEALTH, RURAL)(REHABILITATION)

ZYAZIN, I.G. (selo Vorontsovka Voronezhskoy oblasti)

Role of the feldsher-midwife center in lowering the incidence of dysentery. Fel'd, i akush. 24 no.12:23-27 D '59. (MIRA 13:2)
(VORONTSOV DISTRICT--DYSENTERY) (PUBLIC HEALTH, RURAL)

ZYAZIN, I.G.

Variable work schedule and preventive work in a district. Sov.zdrav. 17 no.9:49-50 S'58 (MIRA 11:8)

1. Iz Vorontsovskoy rayonnoy bol'nitsy (glavnyy vrach L.V. Yadykina) Voronezhskoy oblasti.

(MEDICINE, PREVENTIVE in Russia (Rus))

ZYAZIN, I.G. (g.Bobrov)

Results of four years of dispensary services for the rural population. Sov. zdrav. 21 no.9: 59 '62 (MIRA 17:4)

1. Iz bol'nitsy Vorontsovskogo rayona, Voronezhskoy oblasti.

ZYAZIN, I.G. (Bobrov)

Mortality in the Vorontsovskiy District from 1950 to 1958.
Sov. zdrav. 21 no.3:43-46 '62. (MIRA 15:3)

1. Iz Vorontsovskoy bol'nitsy Voronezhskoy oblasti.
(VORONEZH PROVINCE--MORTALITY)

ZYAZIN, I.G. (selo Vorontsovka Voronezhskoy oblasti)

Role of intermediate medical personnel in providing dispensary services in rural areas. Fel'd. i akush. 23 no.6:46-48 Je '58 (MIRA 11:6)

(MEDICINE, RURAL)

ZYAZINA, O.

Flaz - Vologda (Province)

Raising fiber flax. Kolkh.proizv. 12 No. 3, 1952

Monthly List of Russian Accessions, Library of Congress, June 1952. Unclassified.

BLYUMBERG, I.B.; ZYAZINA, T.M.; TEREGULOV, G.I.

New method of determining the sharpness of the photographic image. Zhur.nauch.i prikl.fot.i kin. 7 no.4:268-271 Jl.-Ag '62. (MIRA 15:8)

1. Leningradskiy institut kinoinzhenerov (LIKI).
(Photographic sensitometry)

BLYUMBERG, I.B.; ZYAZINA, T.M.; TERGULOV, G.I.

Investigating changes in the quality of the photographic image during printing. Tekh.kino i telev. 4 no.7:10-18 Jl '60. (MIRA 13:7)

1. Leningradskiy institut kinoinzhenerov i TSentral'noye konstruktorskoye byuro Ministerstva kul'tury SSSR.
(Photography--Printing)

BLYUMBERG, I.B.; ZYAZINA, T.M.

Rating the quality of the cinematographic image. Usp.nauch.fot. 10:50-57 '64. (MIRA 17:10)

GLEZER, V.D.; ZYAZINA, Z.N.; SMOLENSKAYA, L.N.

Changes in the foveal receptor fields in man. Biofizika 7 no.4:486-488 '62. (MIRA 15:11)

1. Institut fiziologii imeni I.P.Pavlova AN SSSR, Leningrad.
(VISION RESEARCH)

ZYBAILO, A. V.

Podgotovka proizvodstva na avtomobil'nom zavode (Preparation of production at an automobile plant). Moskva, Mashgiz, 1950. 116 p.

SO: Monthly List of Russian Accessions, Vol 6, No. 3, June 1953

SHEVTSOV, Ye.I., inzhener; YATSOVSKIY, S.A., inzhener; ZYBAKOV, S.M., inzhener; BABIN, P.N., inzhener.

Overlay welding of basic hearths. Stal.proizv.no.1:109-119 '56. (MLRA 9:9)

1.Kazakhskiy metallurgicheskiy zavod (for Shevtsov, Yatsovskiy).
2.Institut arkhitektury, stroitel'stva i stroitel'nykh materialov AN KazSSR (for Zubakov, Babin).
(Open-hearth furnaces--Repairing)

ZYBIN, A.G.; POPKOV, L.P.

Protection of electric mine motors. Vop.bezop.v ugol'.shakh. 4:224-227 '64. (MIRA 18:1)

NOSYREV, V., nauchnyy sotrudnik; YAKUNINA, A.; ZYBIN, B., mladshiy nauchnyy sotrudnik

Poppy pests. Zashch. rast. ot vred. i bol. 10 no.8:54-55 '65. (MIRA 18:11)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut lekarstvennykh i aromaticheskikh rasteniy (for Nosyrev). 2. Prikheval'skaya zonal'naya opytnaya stantsiya Vsesoyuznogo nauchno-issledovatel'skogo instituta lekarstvennykh i aromaticheskikh rasteniy (for Zyubin).

ZYBALOVA, G.P., kand.tekhn.nauk

Air and fire flow-through connection linking in Angren. Nauch.trudy VNIIPodzemgaza no.10:45-51 '63. (MIRA 17:5)

1. Laboratoriya gazifikatsii burykh ugley Vsesoyuznogo nauchno-issledovatel'skogo instituta podzemnoy gazifikatsii ugley.

NUSINOV, G.O., doktor tekhn.nauk; ZYBALOVA, G.P., kand.tekhn.nauk; Prinimali uchastiye: RETINSKAYA, A.N., inzh.; ZVYAGINTSEV, K.N., inzh.; DUSHANOVA, N.N., inzh.; KARNASH, E.M., inzh.

First data on the underground coal gasification in the experimental gas producer of the Angren "Podzemgaz" Gas Producer Plant. Nauch. trudy VNII Podzemgaza no.6:3-10 '62. (MIRA 15:11)

1. Laboratoriya gazifikatsii burykh ugley Vsesoyuznogo nauchno-issledovatel'skogo instituta podzemnoy gazifikatsii ugley.

(Angren Basin--Coal gasification, Underground)

L 2094-66 EWT(1)/EWA(h)
ACCESSION NR: AR5008345 S/0275/65/000/002/A010/A010
621.385

SOURCE: Ref. zh. Elektronika i yeye primeneniye, Abs. 2A30

AUTHOR: Zybin, G. P.; Tregubov, V. F.

TITLE: Triode electron gun for shaping an electron beam at lower-than-natural grid potentials

CITED SOURCE: Izv. Leningr. elektrotekh. in-ta, vyp. 53, 1964, 287-300

TOPIC TAGS: electron gun, electron beam, triode electron gun

TRANSLATION: Operation is considered of an electron gun with its control grid near its cathode under conditions when the grid potential is lower than the natural potential (the latter existed at the place now occupied by the grid). Running the grid below natural potentials is necessary in order to reduce the grid-heating average power. However, this also reduces the beam space-charge parameter and a lens effect occurs of the grid cells. The lens effect may considerably increase the beam diameter. A formula is derived for the relation of the space-

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APPROVED FOR RELEASE: Thursday, September 26, 2002 CIA-RDP86-00513R002065720016-2"

L 2094-66
ACCESSION NR: AR5008345

charge parameters in diode and triode guns, as well as a formula for the lens effect. A method of gun design is suggested. Designing a grid-type gun should start with selecting a diode system with a definite current margin. As the lens-effect-caused variation of the beam diameter is impossible to calculate, the designing must be completed by an electrolytic cell simulation. A gun was designed which shapes a 4-mm diameter electron beam with a 10^{-6} amp/$v^{3/2}$ space charge, at zero potential on the grid with a gain of about 20 and an accelerating voltage up to 20 kv. The basic diode system had a space-charge parameter of 3.6×10^{-6} amp/$v^{3/2}$. The estimated gun parameters are in good agreement with the experimental. Bibl. 4.

SUB CODE: EC ENCL: 00

Card 2/2

ZYBALOVA, G. P., Cand Tech Sci (diss) -- "Brown coals as a raw material for underground gasification". Moscow, 1960. 18 pp (Acad Sci USSR, Inst of Mineral Fuels), 230 copies (KL, No 15, 1960, 134)

ZYBALOVA, G.P.; ZVYAGINTSEV, K.N.

Effect of certain lignite properties on fire drift movements advancing toward the blow. Podzem.gaz.ugl. no.2:46-51 '59. (MIRA 12:9)

1. Vsesoyuznyy nauchno-issledovatel'skiy i proyektnyy institut podzemnoy gazifikatsii ugley.
(Lignite--Testing) (Coal gasification, Underground)

YERMIN, I.V.; ZYBALOVA, G.P.

Effect of petrographic characteristics of coal on the efficiency of pre-heating in the undergroundgasification process. Podzem. gaz. ugl. no. 2:59-64 '58. (MIRA 11:7)

1. Institut goryuchikh iskopayemykh im.G.M.Krzhizhanovskogo AN SSSR i Vsesoyuznyy nauchno-issledovatel'skiy institut Podzemgaz.
(Coal--Testing)
(Coal gasification, Underground)

ZYBALOVA, G.P.

Angren coal for use in underground gasification. Podzem.gaz.ugl. no.2:110-113 '57. (MIRA 10:7)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut Podzemgaz.
(Coal gasification, Underground) (Angren Valley--Coal)

LAVROV, N.V., akademik; ZYBALOV, G.P.

Reactivity of Angren and Moscow coals. Izv.AN Uz.SSR. Ser.tekh.nauk no.6:58-63 '61. (MIRA 14:12)

1. Institut goryuchikh iskopayemykh AN SSSR i Institut energetiki i avtomatiki AN Uzbekskoy SSR. 2. AN Uzbekskoy SSR (for Lavrov). (Moscow Basin--Coal--Analysis) (Angren Basin--Coal--Analysis)

ZYAT'KOVA, L. K. Canc Geol-Mineral Sci — (diss) "The use of geologo-geomorphological methods for explaining the local structures of the central area of the Western Siberian lowland," Novosibirsk, 1960, 17 pp, 150 cop (Tomsk State U im V. V. Kuybyshev) (KL, 43-60, 117)

ZYAT'KOVA, L.K.

Method for structural and geomorphological investigations in the central part of the West Siberian Plain. Geol. i geofiz. no. 9:13-20 '60. (MIRA 14:2)

1. Institut geologii i geofiziki Sibirskogo otdeleniya AN SSSR, Novosibirsk.
(West Siberian Plain--Geology, Structural)

PETROV, Ye.N.; ZYAT'KOVA, L.K.

Methods and results of geological and geomorphological investigations carried out in order to study structures in the central areas of the West Siberian Plain. Trudy SNIIGGIMS no.9:87-96 '60. (MIRA 14:7)
(West Siberian Plain--Geology, Structural)

ZYAT'KOVA, Luiza Konstantinovna; NIKOLAYEV, V.A., kand.geol.-mineral.nauk, otv.red.; ALEKSANDROVSKIY, B.M., red.; LOKSHINA, O.A., tekhn.red.

[Geological and geomorphological methods of detecting local structures, the central part of the West Siberian Plain.] Geologo-geomorfologicheskie metody vyiavleniia lokal'nykh struktur; tsentral'naia chast' Zapadno-Sibirskoi nizmennosti. Novosibirsk, Izd-vo Sibirskogo otd-niia AN SSSR, 1961. 76 p. (Akademiia nauk SSSR. Sibirskoe otdelenie. Institut geologii i geofiziki. Trudy, no. 14).
(MIRA 16:9)

ZYAT'KOVA, L.K.; PETROV, Ye.N.

Analyzing longitudinal river profiles to find structures in the West Siberian Lowland. Izv.AN SSSR.Ser.geog. no.3:89-90 My-Je '61. (MIRA 14:5)

(West Siberian Lowland—Rivers)

ZYAT'KOVA, L.K.

Geology and geomorphology of the Asea uplifts region (Vakh Basin). Trudy SNIIGGIMS no.7:101-107 '61. (MIRA 16:7)

(Vakh Valley--Geology)

ZYATKOVA, L.K.

The Fifth Plenum of the Geomorphological Commission. Izv. AN SSSR. Ser. geog. no.4:136-138 Jl-Ag '65. (MIRA 18:8)

ZIL'BER, M.K. (Chelyabinsk); ZYAT'KOVA, L.R. (Chelyabinsk)

Composition of the gaseous phase of blast furnace tap cinder.
Izv. AN SSSR. Otd. tekh. nauk. Met. i topl. no.5:66-68 S-O '62.
(MIRA 15:10)

(Slag—Analysis)

KARPOV, Boris Dmitriyevich; ZYATYUSHKOV, A.I., red.; LEBEDEVA, G.T., tekhn. red.

[Work hygiene in industrial painting] Gigiena truda pri maliarnykh rabotakh. Leningrad, Medgiz, 1963. 38 p. (MIRA 16:11)

(Painting, Industrial--Safety measures)

BURLOVA, Lidiya Yakovlevna; LEBEDEVA, Aleksandra Filippovna; TARASOVA, Anna Vladimirovna; ZYATYUSHKOV, A.I., red.; BUGROVA, T.I., tekhn.red.

[Work hygiene in plants of the textile industry; cotton-spinning and weaving manufacture] Gigiena truda na predpriiatiiakh tekstil'noi promyshlennosti: v bumagopriadil'nom i tkatskom proizvodstve. Leningrad, Medgiz, 1963. 49 p. (MIRA 16:12)

(COTTON MANUFACTURE--HYGIENIC ASPECTS)

ABRAMOVICH, Grigoriy Borisovich, prof.; ZYATYUSHKOV, A.I., red.

[For parents about epileptic children] Roditeliam o detiakh, boleiushchikh epilepsiei. Izd.2. Leningrad, Izd-vo "Meditsina," 1964. 37 p. (MIRA 17:5)

SHAGOVA, Yekaterina Mikhaylovna; ZYATYUSHKOV, A.I., red.; LEBEDEVA, Z.V., tekhn. red.

[Guard children's eyesight; eye injuries and their prevention] Beregite zrenie detei; povrezhdeniia glaz i ikh preduprezhdenie. Leningrad, Medgiz, 1962. 22 p. (MIRA 15:8)
(EYE--WOUNDS AND INJURIES) (EYE--PROTECTION)

ROZENFEL'D, Aleksandr Semenovich; ZYATYUSHKOV, A.I., red.; LEBEDEVA, G.T., tekhn. red.

[Water and health; hygiene of water supply] Voda i zdorov'e; gigiena vodosnabzheniia. Leningrad, Medgiz, 1963. 29 p. (MIRA 16:10)

(WATER SUPPLY--HYGIENIC ASPECTS)

TONKONOGIY, Iosif Moiseyevich; ZYATYUSHKOV, A.I., red.; BUGROVA, T.I., tekhn. red.

[Speech disorders, their prevention and treatment] Rechevye rasstroistva, ikh preduprezhdenie i lechenie. Leningrad, Medgiz, 1963. 34 p. (MIRA 17:3)

SHAPOVAL, Alekseĭ Nikitovich; ZYATYUSHKOV, A.I., red.; LUGROVA, T.I., tekhn. red.

[Tick-borne encephalitis; prevention] Kleshchevoi entsefalit; profilaktika. Leningrad, Medgiz, 1963. 56 p. (MIRA 17:3)

RETNEV, Vladimir Mikhaylovich; ZYATYUSHKOV, A.I., red.; ONOSHKO, N.G., tekhn. red.

[Work hygiene in concrete production] Gigiena truda pri izgotovlenii betona. Leningrad, Medgiz, 1963. 99 p. (MIRA 16:9)

(CONCRETE PLANTS--SAFETY MEASURES)

SOV/177-58-4-22/32

AUTHORS: Zyatyushkov, A.I., Colonel of the Medical Corps, Candidate of Medical Sciences, and Tsukerman, B.G.

TITLE: The Accommodations and Sick Rate of Submarine Crews (Usloviya obitayemosti i zabolevayemosti lichnogo sostava na podvodnykh lodkakh) According to Data From Foreign Publications (Po dannym inostrannoy pechati)

PERIODICAL: Voyenno-meditsinskiy zhurnal, 1958, Nr 4, pp 74-80 (USSR)

ABSTRACT: The article is founded on data from American, German and Italian literature. There is 1 table.

Card 1/1

ZYATYUSHKOV, Alfey Ivanovich; DEMBO, A.G., red.

[Reduction of pulmonary gas volumes to normal conditions and calculations of some proper values; principles and tables] Privedenie legochnykh ob"emov gazov k normal'nym usloviiam i raschety nekotorykh dolzhnykh velichin; obosnovanie i tablitsy. Leningrad, Meditsina, 1965. 137 p. (MIRA 18:9)

PLEKHANOV, A.F.; PODVAL'NYY, S.I.; ZYAZEV, A.D.; KALUGINA, A.T.

Removing copper from the cobalt oxide production cycle. TSvet. met. 32 no.2:49-52 F '59. (MIRA 12:2)
(Cobalt metallurgy) (Copper)

APPROVED FOR RELEASE: Thursday, September 26, 2002 CIA-RDP86-00513R002065720016-2"

AUTHOR: Zyazev, A.D. 136-2-14/22

TITLE: Simplified Method of Protecting Plant from Corrosive Solution and Pulps in Cobalt Production. (Uproshchennyy sposob zashchity apparatury ot agressivnykh rastvorov i pul'p kobal'tovogo proizvodstva)

PERIODICAL: Tsvetnyye Metally, 1957, No. 2, pp. 77-78 (USSR)

ABSTRACT: The disadvantages (slowness, complexity, expense, etc.) of the method used, e.g. at the Ufaleyskiy Nickel Works, for protecting plant metalwork from the corrosive action of material being processed to obtain cobalt are outlined. A method is proposed by N.V. Aleshintsev based on the use of type 500-600 Portland cement with bricks and plates. Examples given of applications to different shapes of units include pipe connections, Pachuca tanks, collectors, cisterns for transporting hypochlorite and suction filters. Per unit of protected area this method cost about about a tenth compared with the method described by K.A. Polyakov in "Non-Metallic Chemically Stable Materials", pp. 80-86. It is recommended for wide use not only in cobalt production. There are 6 figures.

1/1

AVAILABLE: Library of Congress

PIMENOV, L.I.; ZYAZEV, A.D.

Electric melting reduction of converter slags from nickel production. TSvet. met. 38 no.1:34-36 Ja '65 (MIRA 18:2)

APPROVED FOR RELEASE: Thursday, September 26, 2002 CIA-RDP86-00513R002065720016-2

SOV/136-59-2-11/24

AUTHORS: Plekhanov, A.F., Podval'nyy, S.I., Zyazev, A.D. and Kalugina, A.T.

TITLE: Elimination of Copper from the Cobalt-Oxide Production Cycle (Vyvod medi iz tsikla pri proizvodstve okisi kobal'ta)

PERIODICAL: Tsvetnyye Metally, 1959, Nr 2, pp 49-52 (USSR)

ABSTRACT: The existing method at the Ufaleyskiy Nikelevyy Zavod (Ufaley Nickel Works) for removal of copper from cobalt solutions is to precipitate with soda ash. This gives a copper cake with 0.3 to 0.5% cobalt which has to be reprocessed, leading to deleterious accumulation of copper in the first stage of cobalt-oxide production. The work described had the object of exploring the possibilities of using sodium hyposulphate for the precipitation, giving a copper cake which could be eliminated from the production cycle. Laboratory experiments showed (Fig 1) that 300% (or 7.5 kg per kg copper) of the theoretical amount of hyposulphate was necessary to precipitate all the copper independently of acidity (0.04 to 0.05% Co in the precipitate), that the best temperature for precipitation was 80 to 90°C

Elimination of Copper from the Cobalt-Oxide Production Cycle

the best hyposulphate concentration 10 to 20% (Fig 2) and duration 12 to 15 minutes (Fig 3). On the basis of these satisfactory results production trials on a mechanically-stirred vessel of 4.2 m^3 capacity were organized. In one series iron-free solutions were used, in the other the solutions contained iron. The results (table) were substantially the same in both series but the duration of the subsequent operation of cobalt precipitation by chlorine took 30% longer with the iron-free solutions. The consumption of hyposulphate could be reduced to 4.8 kg/kg copper by increasing the time interval between successive additions to 30 minutes and the cobalt content in the cake was low enough (0.1% max) to make further treatment unnecessary. The yield of copper cake was twice as low as with soda ash. The authors conclude that the possibility of copper

Copper from the Cobalt-Oxide Production Cycle

precipitation with sodium hypo-sulphite has been established. There are 3 figures and 1 table.

Card 3/3

RUDNEV, G.P.; TKACHEV, P.G.; ZYAZEV, A.K.; LATSINIK, G. Ye.; SHCHERBAK, Yu.F.

Evaluation of some biochemical indices in epidemic hepatitis.
Kaz. med. zhur. no.5:37-40 S-O'63 (MIRA 16:12)

1. Kafedra infektsionnykh bolezney (zav. - deystvitel'nyy chlen AMN SSSR prof. G.P. Rudnev) TSentral'nogo instituta usovershenstvovaniya vrachey.

TKACHEV, P.G., dotsent; ZIAZEV, A.K., starshiy nauchnyy sotrudnik

Evaluation of some biochemical indexes in infectious hepatitis. Lech. infekts. bol'. no.4:53-70 '60. (MIRA 14:5)
(HEPATITIS, INFECTIOUS)

ZYAZEV, V.; KAMENSKAYA, A.; MALYSHEV, A.; SHUSTOV, A.

Using the system of closed circuits in organizing interurban freight haulage. Avt. transp. 38 no.9:11-14 S '60. (MIRA 13:9)
(Transportation, Automotive)

ZYAZEV, V.

Interurban trucking and vehicles used for it. Avt. transp. 37 no.10: 23-26 O '59. (MIRA 13:2)

1. Nauchno-issledovatel'skiy institut avtomobil'nogo transporta.
(Transportation, Automotive)

ZYAZEV, V.; LIKHACHEV, I.

Direct centralized automotive transportation of ammonium nitrate.
Avt.transp. 42 no.12:8-9 D '64. (MIRA 18:4)

BILIBINA, N., kandidat ekonomicheskikh nauk; ZYAZEV, V., inzhener; SEREGIN, V., inzhener.

The efficient organization of centralized hauling in the region of Ivanovo Province. Avt.transp.33 no.10:5-7 O '55. (MLRA 9:1)
(Ivanovo Province--Transportation, Automotive)

ZYAZEV, V., inzhener; SHUSTOV, A., inzhener.

Intercity automotive transportation in Poland. Avt.transp. 35 no.3:39 Mr '57. (MLRA 10:5)
(Poland--Transportation, Automotive)

BASIN, S.; ZYAZEV, V.; SMIRNOV, O.; SHUSTOV, A.

Organizing centralized intercity freight haulage by means of public automotive transportation. Avt. transp. 36 no. 6:4-9 Je '58. (MIRA 11:7)

(Transportation, Automotive)

ANDRIYEVSKIY, M.; ZYAZEV, V.

Efficient sugar beet transportation. Avt.transp. 40 no.4:15-16 Ap '62. (MIRA 15:4)

(Tambov Province--Sugar beets--Transportation)

ZYAZEV, V.; NAKASHIDZE, D.

New method for sugar-beet transportation. Avt. transp. 41 no.5:10-11 My '63. (MIRA 16:10)

(Sugar beets—Transportation)

ZYAZEV, V.

Centralized agricultural freight transportation. Avt.transp. 42 no. 4:15-17 Ap '64. (MIRA 17:5)

ZYAZEV, V.; MALYSHEV, A.; SHUSTOV, A.

Develop and improve intercity freight haulage by means of small shipments. Avt. transp. 35 no.5:10-13 My '57. (MLRA 10:6)
(Transportation, Automotive)

ZYAZEV, V.A.

Organization of traffic on interurban routes. Trudy MIEI no.20: 115-125 '63. (MIRA 17:3)

IVANOVSKIY, L.Ye.; ILYUSHCHENKO, N.G.; ZYAZEV, V.L.; PLEKHANOV, A.F.

Lower-valence rare earth oxychlorides. Trudy Inst.elektrokhim. UFAN SSSR no.1:55-60 '60. (MIRA 15:2)

(Rare earth chlorides)
(Electrolysis)

ZYAZEV, V.L. (Sverdlovsk); FURASHEVA, M.N. (Sverdlovsk)

Gases in copper ingots and their determination. Izv. AN SSSR Met. i gor. delo no.2:132-136 Mr-Ap'64 (MIRA 17:8)

ZYAZEV, V.L. (Sverdlovsk); ZAGREBEL'NYY, B.N. (Sverdlovsk); TANUTROV, I.M. (Sverdlovsk)

Gas content of wire bar copper. Izv. AN SSSR. Otd. tekh. nauk. Met. i gor. delo no.1:80-86 Ja-F '63. (MIRA 16:3)
(Copper—Analysis) (Gases in metals)

S/137/62/000/008/011/065
A006/A101

AUTHORS: Ivanovskiy, L. Ye., Ilyushchenko, N. G., Plekhanov, A. F., Zyazev, V. L.

TITLE: Separating rare-earth metals by fused salt electrolysis

PERIODICAL: Referativnyy zhurnal, Metallurgiya, no. 8, 1962, 27, abstract 8G188 ("Tr. In-ta elektrokhimii, Ural'skiy fil. AN SSSR", 1961, no. 2, 131 - 134)

TEXT: Separation of rare-earth metals was investigated in fused bath electrolysis containing a mixture of rare-earth chlorides. It was found that at all the D_c (0.25 - 1.5 amp/cm^2) and temperatures (850 - 870; 560 - 700°C) investigated, alloys are obtained which are considerably impoverished of La (3 - 5 weight %) and enriched with Ce (up to 80%). The total Pr and Nd amount remains practically constant. The nature of cathodic deposits varies noticeably with temperature. Their salt content varies from 75 to 80% at 560°C and from 30 to 40% at 700°C. There are 11 references.

[Abstracter's note: Complete translation] G. Svodtseva

Card 1/1

ZYAZEV, V.L., Cand Tech Sci -- (diss) "Physico-chemical properties of the [redacted] simplest vanadium slags." Sverdlovsk, 1958, 12 pp. (Min of Higher Education USSR. Ural Polytech Inst im S.M. Kirov) 150 copies (KL, 32-58, 108)

27213
S/081/61/000/014/010/030
B106/B110

5.2300

AUTHORS: Ivanovskiy, L. Ye., Ilyushchenko, N. G., Zyazev, V. L., Plekhanov, A. F.

TITLE: Oxychlorides of rare earths of lowest valency

PERIODICAL: Referativnyy zhurnal. Khimiya, no. 14, 1961, 97, abstract 14B15. (Tr. In-ta elektrokhimii. Ural'skiy fil. AN SSSR, no. 1, 1960, 55 - 60)

TEXT: The authors studied the reaction of a mixture of chlorides of rare earths with mishmetal in the presence of O_2. They separated a mixture of oxychlorides of lowest valency, M_2OCl_2 (M = La, Ce, Pr, Nd). They studied some properties of these compounds. In the electrolysis of chloride baths where the possibility of a contact of O_2 of air and moisture with the melt was not excluded, it was shown that the oxidation of the salts apparently yielded oxy cations $M_2OCl_2^{2+}$ which were discharged on the cathode and, thus, were transformed to the oxychlorides of lowest valency, M_2OCl_2. The anodic

Oxychlorides of rare earths of lowest ...

dissolution of the mishmetal was also examined. In the anodic dissolution, the chlorides of bivalent elements are formed in the melts, whose reaction with O_2 also leads to the formation of oxychlorides of the composition mentioned. [Abstracter's note: Complete translation.]

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APPROVED FOR RELEASE: Thursday, September 26, 2002 CIA-RDP86-00513R002065720016-2"

"Electric Conductivity of Vanadium Slags,"
lecture given at the Fourth Conference on Steelmaking, A.A. Baikov Institute of Metallurgy, Moscow, July 1-6, 1957

ZYAZEV, V.L.; SPEVAK, N.D.; DONSKOY, A.Ye.; TANUTROV, I.N.

Vacuum treatment of liquid copper. TSvet. met. 35 no.7:32-37 Jl '62. (MIRA 15:11)
(Copper--Metallurgy) (Vacuum metallurgy)

AUTHORS: Yesin, O. A., ~~Zyazev, V. L.~~

SOV/78-3-9-23/38

TITLE: The Electric Conductivity of the Systems V_2O_5-PbO, V_2O_5-CaO, and V_2O_5-MgO (Elektroprovodnost' sistem V_2O_5-PbO, V_2O_5-CaO i V_2O_5-MgO)

PERIODICAL: Zhurnal neorganicheskoy khimii, 1958, Vol 3, Nr 9, pp 2143-2149 (USSR)

ABSTRACT: The electric conductivity in the systems V_2O_5-PbO, V_2O_5-CaO, and V_2O_5-MgO was investigated within the temperature range of the liquid and solid state. Three congruently melting compounds occur in the system V_2O_5-PbO: $V_2O_5 \cdot 2PbO$, $V_2O_5 \cdot 3PbO$, and $V_2O_5 \cdot 8PbO$. The electric conductivity is investigated in pure V_2O_5 and PbO as well as in nine melts containing 23,5-95% PbO. The isothermal lines of the electric conductivity and the values of the activation energy E were compared as well in the phase diagram. Two maxima occur on the curve of the activation energy: 14,4 k.cal/mol in the case of 87% PbO and 15,2 k.cal/mol in the case of 98% PbO. These maxima correspond to the occurrence of

The Electric Conductivity of the Systems V_2O_5-PbO, V_2O_5-CaO, and V_2O_5-MgO

the following chemical compounds: $V_2O_5 \cdot 3PbO$ and $V_2O_5 \cdot 8PbO$. The electric conductivity is increased with rising PbO-content up to 45%. The electric conductivity in the system V_2O_5-CaO was investigated for melts of V_2O_5-CaO with 11,7 - 37% CaO. The melt has ionic conductivity at 23,4% CaO. The compound $V_2O_5 \cdot CaO$ exists in the liquid melt. In the initial period the electric conductivity decreases rapidly to 10% CaO in these melts, probably in consequence of the dissociation of V_2O_5 at higher temperatures. The system V_2O_5-MgO is completely analogous to the system V_2O_5-CaO. The melt has ionic conductivity at a MgO content of 20,7%. MgO, CaO, and PbO influence the structure of V_2O_5 in the melt. The form of the isothermal lines of the electric conductivity and the curves of the activation energy indicate the presence of the following compounds in the melt of the systems investigated: $V_2O_5 \cdot 3PbO$, $V_2O_5 \cdot 8PbO$, $V_2O_5 \cdot CaO$, $2V_2O_5 \cdot 3MgO$. There are 6 figures, 3 tables, and 12 references,

The Electric Conductivity of the Systems V_2O_5-PbO, V_2O_5-CaO, and V_2O_5-MgO

5 of which are Soviet.

ASSOCIATION: Ural'skiy filial Akademii nauk SSSR, Institut metallurgii (Ural Branch, AS USSR, Institute of Metallurgy)

SUBMITTED: January 15, 1957

31671
S/631/60/000/001/008/014
B117/B147

5.4700

AUTHORS: Ivanovskiy, L. Ye., Ilyushchenko, N. G., Zyazev, V. L., Plekhanov, A. F.

TITLE: Oxychlorides of rare earths of lowest valencies

SOURCE: Elektrokhimiya rasplavlennykh solevykh i tverdykh elektrolitov, no. 1, 1960, 55-60

TEXT: The interaction of oxygen and rare earth metals with chloride melts of rare earths was studied. In the first series of experiments, the authors used a misch metal (% by weight: 22.5 La, 53.0 Ce, 4.53 Pr, and 16.3 Nd) obtained by electrolysis, and a chloride mixture (% by weight: 26 La, 53.9 Ce, 4.85 Pr, 11.42 Nd) obtained by chlorination of oxides of rare earths with gaseous chlorine in the presence of carbon. The result was a deposit of oxychlorides of lowest valency: Me_2OCl_2, where Me stands for La, Ce, Pr, and Nd. This mixture is slowly hydrolyzed in water to give hydrates of highest valency. When boiling, decomposition proceeds rather quickly. During heating, the product readily reacts with acids, particularly

Oxychlorides of rare earths of lowest ...

nitric acid. It oxidizes easily at 300-400°C forming mixtures of oxides of rare earths at higher temperatures. In another series of experiments, the reaction of oxygen with chlorides of rare earths in an open bath at 580 - 600°C was studied. A graphite vessel was used as electrolyzer and anode, and molybdenum rods were used as cathodes. The electrolyte was a mixture of chlorides of rare earths and potassium chloride (50% $MeCl_3$ and KCl). The amount of lowest oxychlorides formed in all experiments depended on the amount of products in the bath obtained by decomposition of salts under the action of oxygen and moisture. Finally, the misch metal in the potassium chloride melt was anodically dissolved at 850°C in an open and a closed bath. The authors always found oxychlorides of lowest valencies with a ratio equal to that of initial substances. Summary: In the case of interaction between oxygen, chloride melts of rare earths, and misch metal mixtures of low-valency oxychlorides of rare earths were obtained. The summational reaction can be written down: $4MeCl_3 + 3O_2 + 8Me = 6\ Me_2OCl_2$. The formation of oxychlorides on the cathode may be explained by the formation of Me_2OCl_4 soluble in the melt by

Oxychlorides of rare earths of lowest ...

decomposition of salts. The formation of $Me_2OCl_2^{++}$, whose discharge on the cathode yields Me_2OCl_2, is well possible. At the same time, direct reaction of decomposition products with the metal deposited on the cathode is also possible. Bivalent chlorides of rare earths are formed in the melt due to anodic dissolution of the misch metal. Their reaction with oxygen also yields oxychlorides of the same composition. There are 4 figures, 2 tables, and 5 references: 4 Soviet and 1 non-Soviet.

X

Card 3/3

ZYAZEV, V.L.; YESIN, O.A.

Viscosity and density of the systems V_2O_5-CaO and V_2O_5-MgO. (MIRA 11:11)
Izv.Sib.otd. AN SSSR no.9:3-9 '58.

1. Ural'skiy filial Akademii nauk SSSR.
(Vanadium oxides) (Viscosity) (Fusion)

APPROVED FOR RELEASE: Thursday, September 26, 2002 CIA-RDP86-00513R002065720016-2"

24567 S/137/61/000/005/005/060
A006/A106

5 4700

AUTHORS: Ivanovskiy, L.Ye., Ilyushchenko, N.G., Zyazev, V.L., Plekhanov, A.F.

TITLE: On oxychlorides of rare earths of lower valences

PERIODICAL: Referativnyy zhurnal. Metallurgiya, no. 5, 1961, 16, abstract 5A94 ("Tr. In-ta elektrokhimii. Ural'skiy fil. AN SSSR", 1960, no.1, 55-60)

TEXT: An investigation was made of the interaction of mixtures of rare earth chlorides and "mishmetall" in the presence of O_2. A mixture of low valence oxychlorides, Me_2OCl_2, was singled out where the metals were La, Ce, Pr, Nd. Some of their properties were investigated. It is shown that in electrolysis of chloride bathes, where the possibility of a contact of atmospheric O_2 and moisture with the melt was not excluded, $Me_2OCl_2^{2+}$ oxycations are apparently formed as a result of the oxidation of salts. The discharge of these oxycations on the cathode causes the formation of oxychlorides of lower valence, the Me_2OCl_2. The anodic dissolving of mishmetal was investigated. During the anodic dissolution in the melts 2-valent chlorides of rare earths are formed, whose interaction with O_2 causes also the formation of oxychlorides of the same composition. T. K.
[Abstracter's note: Complete translation]

Card 1/1

APPROVED FOR RELEASE: Thursday, September 26, 2002 CIA-RDP86-00513R002065720016-2"

ZYAZEV, V.L. (Sverdlovsk); TANUTROV, I.N. (Sverdlovsk)

The gas content of anodic copper. Izv. AN SSSR. Otd. tekh. nauk. Met. i gor. delo no.2:54-58 Mr-Ap '63. (MIRA 16:10)

ZYAZEV, V.L.; TANUTROV, I.N.

Behavior of impurities and hydrogen on the fire refining of copper. TSvet. met. 36 no.8:80-83 Ag '63. (MIRA 16:9)
(Copper--Metallurgy) (Gases in metals)

ZYAZEV, V.L.; YESIN, O.A.

Viscosity and density of the systems V_2O_5 - Fe_2O_3, V_2O_5 - CaO and V_2O_5 - CaO - Fe_2O_3. Izv. Sib. otd. AN SSSR no.10:13-20 '58. (MIRA 11:12)

1.Ural'skiy filial AN SSSR.
(Systems (Chemistry)) (Viscosity) (Fusion)

SOV/137-59-3-5058 D

Translation from: Referativnyy zhurnal. Metallurgiya, 1959, Nr 3, p 24 (USSR)

AUTHOR: Zyazev, V. L.

TITLE: Physicochemical Properties of the Simplest Vanadium Slags (Fiziko-khimicheskiye svoystva prosteyshikh vanadiyevykh shlakov)

ABSTRACT: Bibliographic entry on the author's dissertation for the degree of Candidate of Technical Sciences, presented to the Ural'skiy politekhn. in-t (Ural Polytechnic Institute), Sverdlovsk, 1958

ASSOCIATION: Ural'skiy politekhn. in-t (Ural Polytechnic Institute), Sverdlovsk

Card 1/1

AUTHORS: Zyazev, V. L., Yesin, O. A. 78-3-6-15/30

TITLE: Viscosity and Density in the V_2O_5-PbO-System
(V_2O_5-PbO)

PERIODICAL: Zhurnal Neorganicheskoy Khimii, 1958, Vol. 3, Nr 6, pp. 1381-1385 (USSR)

ABSTRACT: The viscosity and the density of the enamels of the V_2O_5-PbO-system including the pure oxides of V_2O_5-PbO were determined.
The determinations of density were performed by heating and cooling the enamel.
The dependence of temperature on the viscosity and density in the V_2O_5 enamels with a PbO content of 28,3-88,9% was investigated.
The density of the enamels of the V_2O_5-PbO-system was investigated at temperatures of 800, 1000, and 1200°C.
At 68% PbO a minimum is observed in the density curve and in alloys with 79,7% a break was found. Probably the atomic groupings occur in the enamel under formation of the following chemical compounds:

Viscosity and Density in the V_2O_5-PbO-System 78-3-6-15/30

$V_2O_5 \cdot 2PbO$, $V_2O_5 \cdot 3PbO$, $V_2O_5 \cdot 8PbO$.

It was found that in the enamel of the system at 1000°C a relatively high specific conductivity and little viscosity are prevailing. The existence of the above-mentioned chemical compounds was confirmed by the curves of viscosity and the determinations of density of the enamels of the V_2O_5-PbO-system. There are 3 figures, 2 tables, and 10 references, 7 of which are Soviet.

ASSOCIATION: Institut metallurgii Ural'skogo filiala Akademii nauk SSSR (Institute of Metallurgy, Ural Branch AS USSR)

SUBMITTED: July 29, 1957

AVAILABLE: Library of Congress

1. Enamels--Viscosity 2. Enamels--Density 3. Viscosity--Temperature factors 4. Density--Temperature factors

Card 2/2

YESIN, O.A.; ZYAZEV, V.L. (Sverdlovsk)

Electric conductivity of binary systems composed of vanadium pentoxide with iron oxide and copper oxide and a number of intricate alloys. Izv.AN SSSR. Otd.tekh.nauk no.6:7-11 Je '58. (MIRA 11:8)

1. Institut metallurgii Ural'skogo filiala AN SSSR.
(Vanadium alloys--Electric properties)

APPROVED FOR RELEASE: Thursday, September 26, 2002 CIA-RDP86-00513R002065720016-2"

YESIN, O.A.; ZYAZEV, V.L.

Electric conductivity of oxides of vanadium, lead, and copper.
Zhur.neorg.khim. 2 no.9:1998-2002 S '57. (MIRA 10:12)

1.Ural'skiy filial AN SSSR, Institut metallurgii AN SSSR.
(Vanadium oxides--Electric properties)
(Lead oxides--Electric properties)
(Copper oxides--Electric properties)

ZYAZEV, V.L.

57-1-2/30

AUTHORS: Zyazev, V. L., Yesin, O. A.

TITLE: On the Influence of the Short Range Order on the Character of Conductivity (O vliyanii blizhnego poryadka na kharakter provodimosti).

PERIODICAL: Zhurnal Tekhnicheskoy Fiziki, 1958, Vol. 28, Nr 1, pp. 18-22 (USSR)

ABSTRACT: The authors refer to the works of A. F. Ioffe (reference 1) and Regel' (reference 1). These stated that for the character of the conductivity the short and not long range order of the atoms is of great importance. The measurement results of the electric conductivity of binary alloys of V_2O_5 with PbO, CaO and MgO in various compositions and at various temperatures are given. The measurements were carried out in open resistance furnaces (in the air) with alternating current, 1000 c frequency, usual resistance bridge (as zero instrument served a cathode oscillograph). As V_2O_3 when being cooled oxidizes to V_2O_5 the measurements with the second heating were more reliable and only these results are given here. The authors show that the transition from the

Card 1/3

On the Influence of the Short Range Order on the Character of Conductivity

57-1-2/30

semiconductor mechanism to the ion mechanism in the systems begins with unequal MeO concentrations. In alloys of V_2O_5 with CaO it begins at 23,4 % CaO, in the V_2O_5-MgO-system at 27,7 % MgO and with V_2O_5-PbO at 71 %. PbO. In all cases the transition-begin corresponds with the first chemical compound in the respective system. Such a regularity points out the important part of the short range order in the atomic distribution for the realization of the semiconductor electric conductivity in alloys. The character of the polytherms for the electric conductivity shows that in the V_2O_5-PbO, V_2O_5-CaO and V_2O_5-MgO alloys the semiconductor mechanism passes over to an ion mechanism with compounds which correspond to the chemical compounds with the least second component (MeO). The regularity determined proves the opinion of Ioffe.
There are 4 figures, and 13 references, 6 of which are Slavic.

Card 2/3

On the Influence of the Short Range Order on the Character of Conductivity 57-1-2/30

ASSOCIATION: Institute for Metallurgy of the Ural Branch AN USSR, Sverdlovsk (Institut metallurgii Ural'skogo filiala AN SSSR, Sverdlovsk).

SUBMITTED: March 26, 1957

AVAILABLE: Library of Congress

Card 3/3

ZYAZEV, V.L.; TANUTROV, I.N.

Effect of vacuuming on the composition and properties of cast copper. TSvet. met. 36 no.5:30-34 My '63. (MIRA 16:10)

APPROVED FOR RELEASE: Thursday, September 26, 2002 CIA-RDP86-00513R002065720016-2"

SOV/24-58-6-2/35

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TITLE: Electrical Conductivity of the Binary Vanadium Pentoxide-Iron Oxide and Vanadium Pentoxide-Copper Oxide Systems, and of some other Complex Systems (Elektroprovodnost' dvoynykh sistem pyatiokisi vanadiya s okisyu zheleza i okis'yu medi i ryada slozhnykh splavov)

PERIODICAL: Izvestiya akademii nauk SSSR, Otdeleniye tekhnicheskikh nauk, 1958, Nr 6, pp 7-11 (USSR)

ABSTRACT: The electrical conductivity of several oxide systems was investigated to ascertain the extent to which they constituted semi-conductors in the solid and liquid states. The quasi-binary systems V_2O_5 - Fe_2O_3 and V_2O_5 - CuO were studied together with three compositions based on the ternary system V_2O_5 - CaO - Fe_2O_3 (see the table on p 10). Two quaternary melts (V_2O_5 32.8%, CaO 38%, SiO_2 19%, MgO 10%, and V_2O_5 18.6%, CaO 23.4%, SiO_2 27.2%, MnO 10%) of industrial importance were also investigated. A carbon element resistance furnace was used for the research, the reaction between the carbon and metallic oxides at high temperatures being prevented by a porcelain lining

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tube. The conductivity measurements were made over temperature ranges covering both liquid and solid states. The melts were held in corundum crucibles. The resistance was determined by means of a bridge fed with a 100 c.p.s. current, using a cathode ray oscillograph to indicate the balance conditions. Platinum wire electrodes were employed for immersion into the oxide mixtures. The accuracy of the measurements was 10 to 15%. The experimental mixtures were heated to the maximum temperature and held at that temperature for 15 to 20 minutes, after which the melt was cooled and reheated. The most reliable conductivity measurements were obtained during the second heating cycle, and only these values are discussed in the paper. Chemical analysis after the final cooling showed that dissociation had occurred to a high degree, thus explaining the vigorous gas evolution observed during melting. The composition containing 15% of Fe_2O_3 was a critical one in the V_2O_5 - Fe_2O_3 system:

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below this composition vanadium pentoxide dissociated, while above this composition iron oxide decomposed. Decomposition in the V_2O_5 - CuO system was confined mainly to the copper oxide. The temperature dependence of the electrical conductivity of the V_2O_5 - Fe_2O_3 system is illustrated in Fig 1, graphs 1,2 and 3 corresponding to Fe_2O_3 contents of 15, 19.4 and 30.5% respectively. It can be seen that: (a) the conductivity decreased with temperature over the 550-650°C range, except when the iron oxide content was very high; this negative temperature coefficient is attributed to the saturation of those impurity levels to which solid V_2O_5 owes its p-type conductivity; (b) above 650°C the conductivity increased smoothly with temperature, but in some instances a decrease in conductivity was observed in the 800-850°C range. The reason for this behaviour is not understood: but according to Martinet (Ref 3) and Grunewald (Ref 4) it can be attributed to the admixture mechanism of

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conduction by which Fe_2O_3 is characterised. The presence of FeO as a decomposition product was believed to explain why many of the investigated compositions did not display this conductivity decrease; (c) the conductivity increase is accelerated at temperatures of about 900 to 950°C. The weight losses observed at high temperatures with pure V_2O_5, and with the V_2O_5 - rich melts indicated considerable dissociation of V_2O_5 and Fe_2O_3. The decomposition products V_2O_3 and FeO appeared to influence the temperature/conductivity relationships; for most of the alloys the curves for the liquid state are not exponential in character and therefore the activation energies could not be determined. The conductivity isotherms reproduced on Fig 2 indicate an accelerated increase of the electric conductivity at 15% Fe_2O_3. Above this composition conductivity due to Fe_2O_3plays the predominant part. For the V_2O_5 - CuO system, the conductivity-temperature relationships of the 10, 20, 30, 40 and 50% CuO alloys

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are shown in Fig 3, (graphs 1 to 4 respectively). In this case, the conductivity also decreased with temperature over the 500 to 625°C range, but the decrease was much larger than that observed in the previous system. (The table, p 9, gives the factors by which the electric conductivity of various alloys dropped in this temperature range: for the 30% CuO alloy this factor amounted to 80.) Compositions containing 10 to 35% CuO had a high conductivity which was attributed to an increased transfer of electrons from the copper oxide to those impurity levels which determine the p-type conductivity of solid V_2O_5. The decrease in conductivity observed within this temperature range might have been intensified by the volume changes which, according to Lucas et al. (Ref 1), occur when alloys containing up to 35% CuO are heated to 650-700°C. At temperatures higher than 800-850°C the conductivity increased with increasing temperature. This effect is attributed to the presence of the dissociation

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products, mainly Cu_2O. The conductivity isotherms of the V_2O_5 - CuO system reproduced on Fig 4 (graphs 2 to 7) exhibit two sharp maxima at 25 and 60% CuO. The first maximum was observed only at 500-600°C. The second maximum, whose magnitude increased with temperature, is probably due to decomposition of CuO which brings about an increased concentration of the current carriers. The conductivity isotherms of the ternary and quaternary systems are shown on Figs 5 and 6 respectively: in these cases, no decrease in the conductivity with rise of temperature was observed. The experimental findings indicated that all compositions of the two studied quasi-binary systems behave as semi-conductors both in the

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solid and in the liquid states.

There are 6 graphs, 3 tables and 13 references, of which 6 are Soviet, 4 English, 2 German and 1 French.

ASSOCIATION: Institut Metallurgii Ural'skogo Filiala AN SSSR (Institute of Metallurgy Ural Branch A.S. USSR)

SUBMITTED: February 14, 1957

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(MIRA 18:4)

BITEKHTINA, V.A.; ZYBIN, A.S.; KNYAGINICHEV, N.I.

Developing fisheries on the Ik-Saltaim-Tenis Lake system.
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(Electric lines)

ZYAZIN, I.G.

Significance of work arrangement for patients in a dispensary serving a rural population. Sov.med. 26 no.10:144-145 O '62. (MIRA 15:12)

1. Iz Vorontsovskoy uchastkovoy bol'nitsy (glavnyy vrach S.M. Yershov) Voronezhskoy oblasti.
(PUBLIC HEALTH, RURAL)(REHABILITATION)

ZYAZIN, I.G. (selo Vorontsovka Voronezhskoy oblasti)

Role of the feldsher-midwife center in lowering the incidence of dysentery. Fel'd, i akush. 24 no.12:23-27 D '59. (MIRA 13:2)
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ZYAZIN, I.G.

Variable work schedule and preventive work in a district. Sov.zdrav. 17 no.9:49-50 S'58 (MIRA 11:8)

1. Iz Vorontsovskoy rayonnoy bol'nitsy (glavnyy vrach L.V. Yadykina) Voronezhskoy oblasti.

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1. Iz bol'nitsy Vorontsovskogo rayona, Voronezhskoy oblasti.

ZYAZIN, I.G. (Bobrov)

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Rating the quality of the cinematographic image. Usp.nauch.fot. 10:50-57 '64. (MIRA 17:10)

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1. Institut fiziologii imeni I.P.Pavlova AN SSSR, Leningrad.
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SO: Monthly List of Russian Accessions, Vol 6, No. 3, June 1953

SHEVTSOV, Ye.I., inzhener; YATSOVSKIY, S.A., inzhener; ZYBAKOV, S.M., inzhener; BABIN, P.N., inzhener.

Overlay welding of basic hearths. Stal.proizv.no.1:109-119 '56. (MLRA 9:9)

1.Kazakhskiy metallurgicheskiy zavod (for Shevtsov, Yatsovskiy).
2.Institut arkhitektury, stroitel'stva i stroitel'nykh materialov AN KazSSR (for Zubakov, Babin).
(Open-hearth furnaces--Repairing)

ZYBIN, A.G.; POPKOV, L.P.

Protection of electric mine motors. Vop.bezop.v ugol'.shakh. 4:224-227 '64. (MIRA 18:1)

NOSYREV, V., nauchnyy sotrudnik; YAKUNINA, A.; ZYBIN, B., mladshiy nauchnyy sotrudnik

Poppy pests. Zashch. rast. ot vred. i bol. 10 no.8:54-55 '65. (MIRA 18:11)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut lekarstvennykh i aromaticheskikh rasteniy (for Nosyrev). 2. Prikheval'skaya zonal'naya opytnaya stantsiya Vsesoyuznogo nauchno-issledovatel'skogo instituta lekarstvennykh i aromaticheskikh rasteniy (for Zyubin).

ZYBALOVA, G.P., kand.tekhn.nauk

Air and fire flow-through connection linking in Angren. Nauch.trudy VNIIPodzemgaza no.10:45-51 '63. (MIRA 17:5)

1. Laboratoriya gazifikatsii burykh ugley Vsesoyuznogo nauchno-issledovatel'skogo instituta podzemnoy gazifikatsii ugley.

NUSINOV, G.O., doktor tekhn.nauk; ZYBALOVA, G.P., kand.tekhn.nauk; Prinimali uchastiye: RETINSKAYA, A.N., inzh.; ZVYAGINTSEV, K.N., inzh.; DUSHANOVA, N.N., inzh.; KARNASH, E.M., inzh.

First data on the underground coal gasification in the experimental gas producer of the Angren "Podzemgaz" Gas Producer Plant. Nauch. trudy VNII Podzemgaza no.6:3-10 '62. (MIRA 15:11)

1. Laboratoriya gazifikatsii burykh ugley Vsesoyuznogo nauchno-issledovatel'skogo instituta podzemnoy gazifikatsii ugley.

(Angren Basin--Coal gasification, Underground)

L 2094-66 EWT(1)/EWA(h)
ACCESSION NR: AR5008345 S/0275/65/000/002/A010/A010
621.385

SOURCE: Ref. zh. Elektronika i yeye primeneniye, Abs. 2A30

AUTHOR: Zybin, G. P.; Tregubov, V. F.

TITLE: Triode electron gun for shaping an electron beam at lower-than-natural grid potentials

CITED SOURCE: Izv. Leningr. elektrotekh. in-ta, vyp. 53, 1964, 287-300

TOPIC TAGS: electron gun, electron beam, triode electron gun

TRANSLATION: Operation is considered of an electron gun with its control grid near its cathode under conditions when the grid potential is lower than the natural potential (the latter existed at the place now occupied by the grid). Running the grid below natural potentials is necessary in order to reduce the grid-heating average power. However, this also reduces the beam space-charge parameter and a lens effect occurs of the grid cells. The lens effect may considerably increase the beam diameter. A formula is derived for the relation of the space-

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charge parameters in diode and triode guns, as well as a formula for the lens effect. A method of gun design is suggested. Designing a grid-type gun should start with selecting a diode system with a definite current margin. As the lens-effect-caused variation of the beam diameter is impossible to calculate, the designing must be completed by an electrolytic cell simulation. A gun was designed which shapes a 4-mm diameter electron beam with a 10^{-6} amp/$v^{3/2}$ space charge, at zero potential on the grid with a gain of about 20 and an accelerating voltage up to 20 kv. The basic diode system had a space-charge parameter of 3.6×10^{-6} amp/$v^{3/2}$. The estimated gun parameters are in good agreement with the experimental. Bibl. 4.

SUB CODE: EC ENCL: 00

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Effect of certain lignite properties on fire drift movements advancing toward the blow. Podzem.gaz.ugl. no.2:46-51 '59. (MIRA 12:9)

1. Vsesoyuznyy nauchno-issledovatel'skiy i proyektnyy institut podzemnoy gazifikatsii ugley.
(Lignite--Testing) (Coal gasification, Underground)

YERMIN, I.V.; ZYBALOVA, G.P.

Effect of petrographic characteristics of coal on the efficiency of pre-heating in the undergroundgasification process. Podzem. gaz. ugl. no. 2:59-64 '58. (MIRA 11:7)

1. Institut goryuchikh iskopayemykh im.G.M.Krzhizhanovskogo AN SSSR i Vsesoyuznyy nauchno-issledovatel'skiy institut Podzemgaz.
(Coal--Testing)
(Coal gasification, Underground)

ZYBALOVA, G.P.

Angren coal for use in underground gasification. Podzem.gaz.ugl. no.2:110-113 '57. (MIRA 10:7)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut Podzemgaz.
(Coal gasification, Underground) (Angren Valley--Coal)

LAVROV, N.V., akademik; ZYBALOV, G.P.

Reactivity of Angren and Moscow coals. Izv.AN Uz.SSR. Ser.tekh.nauk no.6:58-63 '61. (MIRA 14:12)

1. Institut goryuchikh iskopayemykh AN SSSR i Institut energetiki i avtomatiki AN Uzbekskoy SSR. 2. AN Uzbekskoy SSR (for Lavrov). (Moscow Basin--Coal--Analysis) (Angren Basin--Coal--Analysis)