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1087, 1273, 1204

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S/073/61/027/004/002/004
B127/B203

AUTHORS: Delimarskiy, Yu. K., and Nazarenko, G. D.

TITLE: Chemical galvanic chains in borate melts

PERIODICAL: Ukrainskiy khimicheskiy zhurnal, v. 27, no. 4, 1961,
458-466

TEXT: The authors studied the thermodynamic characteristics of lead and bismuth oxides dissolved in borax melt by measuring the e.m.f. A platinum electrode was used as reversible "oxygen electrode". The e.m.f. was measured with a ППТБ-1 (PPTV-1) potentiometer and a mirror galvanometer. The determined thermodynamic functions of PbO in $\text{Na}_2\text{B}_4\text{O}_7$ are given in

Table 3. At low PbO concentrations, electrolytic dissociation takes place so that the Pb ion concentration does not deviate too much from the PbO concentration. The activity decreases considerably with rising PbO concentration. Metaborates and polyborates seem to form. The results for the system $\text{Bi/Bi}_2\text{O}_3/\text{O}_2(\text{Pt})$ at temperatures of 900-920°C are given in Table 7. ✓

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B127/B203

Chemical galvanic chains in borate melts

The chemical interaction between Bi_2O_3 and borax melt was shown to be lower than that between PbO and the melt. The chemical reaction of bismuth is probably based on its formation of unstable polyborate-type compounds with borax, the composition of which has not been clarified yet. There are 5 figures, 8 tables, and 19 references: 7 Soviet and 12 non-Soviet. The most important reference to the English-language publications reads as follows: Ref. 15: R. Didstchenko, E. Rochow, J. Am. Chem. Soc., 76, 3291 (1954).

ASSOCIATION: Kiyevskiy gosudarstvennyy universitet im. T. G. Shevchenko
(Kiyev State University imeni T. G. Shevchenko)

SUBMITTED: February 11, 1960

Table 3. Thermodynamic functions of PbO in melts of the system
 $\text{PbO}-\text{Na}_2\text{B}_4\text{O}_7$.

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DELMARSKIY, Yu. K.; KOLOTYI, A. A.; GRISHCHENKO, V. F.

Electrode function of platinum in fused salts. Part 1: Potassium
and chlorine functions and the eigenfunction of platinum. Ukr. khim.
zhur. 27 no.6:760-766 '61. (MIRA 14:11)

1. Institut obshchey i neorganicheskoy khimii AN USSR.
(Electrodes, Platinum)
(Salts)

KALABALINA, I.M.; DELMARSKIY, Yu.K.

Polarization of platinum anode in the polarography of metal
oxides on fused borax. Ukr.khim.zhur. 27 no.6:770-773 '61.
(MIRA 14:11)

1. Institut obshchey i neorganicheskoy khimii AN USSR.
(Metallic oxides)
(Electrodes, Platinum)
(Polarography)

DELMARSKIY, Yu.K.; GORODYSKIY, A.V.

Position of polarograms obtained at solid electrodes in current -
voltage - time coordinates. Zhur. fiz. khim. 35 no.5:1091-1094
My '61. (MIRA 16:7)

1. Institut obshchey i neorganicheskoy khimii AN UkrSSR.
(Polarization(Electricity))

SEEKA, I.A., otv. red.; DELMARSKIY, Yu.K., red.; KOZACHEK, N.N., red.;
NATANSON, E.M., red.; SHEYKO, I.N., red.; MATVIYCHUK, A.A.,
tekh. red.

[Materials of the Technological Conference on the Use of
Zirconium and its Compounds in Industry] Materialy Nauchno-
tekhnicheskogo soveshchaniya po primeneniiu tsirkoniya i ego
soedinenii v promyshlennosti, Kiev, 1960. Kiev, Izd-vo Akad.
nauk USSR, 1962. 97 p. (MIRA 15:4)

1. Nauchno-tekhnicheskoye soveshchaniye po primeneniyu tsirko-
niya i yego soyedineniy v promyshlennosti, Kiev, 1960.
(Zirconium--Congresses)

DELIMARSKIY, Yu.K., akad., otv. red.; POKROVSKAYA, Z.S., red. izd-va;
~~LISOVETS, A.M., tekhn. red.~~

[Polarography of fused salts] Poliarografiia rasplavlennykh solei.
Kiev, Izd-vo Akad. nauk USSR, 1962. 72 p. (MIRA 15:4)

1. Akademiya nauk URSR, Kiev. Instytut zahal'noi ta neorganichnoi
khimii. 2. Akademiya nauk USSR (for Delimarskiy).
(Polarography) (Salts)

DELIMARSKIY, Yu. K. (Kiev); GORODYSKIY, A. V. (Kiev); PANOV, E.
V. (Kiev)

Chronopotentiometric determination of interelectrode
capacitance in fusions. Rev chimie 7 no. 1: 139-143
'62.

1. Akademiya Nauk Ukrainskoy SSR. Institut obshchey i
neorganicheskoy khimii, Kiev.

DELMARSKIN, Yu.K.; OGNYANIK, S.S.

~~XXXXXXXXXXXXXXXXXXXX~~

Polarographic investigation of iron and manganese oxides
with a borosilicate melt as the support. Zhur. neorg. khim. 7
no.8:1757-1761 Ag '62. (MIRA 16:6)

(Iron oxides) (Manganese oxides)
(Polarography)

DELMARSKIJ, Yu.K.; GRISHCHENKO, V.F.

New method of the physicochemical analysis of binary melts.
Zhur.neorg.khim. 7 no.9:2275-2277 S '62. (MIRA 15:9)

1. Institut obshchey i neorganicheskoy khimii AN UkrSSR.
(Fused salts)

DELIMARSKIY, Yu.K., akademik; KOLOTIY, A.A., kand.khimicheskikh nauk;
TKACHEVA, E.V.

Equal value potentials of iron and tin in FeCl_2 - KCl and SnCl_2 - KCl melts. Sbor. trud. TSNIICHM no.28:166-172 '62. (MIRA 15:11)

1. AN UkrSSR.

(Tin plating) (Fused salts--Electric properties)

DELIMARSKIY, Yu.K., akademik; CHETVERIKOV, A.V., kand.khimicheskikh nauk;
PAVLENKO, N.A., inzh.; TYUTYUNNIK, O.A.

Effect of iron chloride on the electrolytic tin plating of black
plate from fused salts. Sbor. trud. TSNIICM no.28:153-158 '62.
(MIRA 15:11)

1. AN UkrSSR.

(Tin plating) (Iron chloride)

S/073/62/028/001/001/004
B110/B138

AUTHORS: Delimarskiy, Yu. K., Sheka, I. A.

TITLE: Present situation and tasks of inorganic chemistry in the
Ukraine

PERIODICAL: Ukrainskiy khimicheskiy zhurnal, v. 28, no. 1, 1962, 3-14

TEXT: At the XXII Party Congress of the CPSU it was stated that the increased role of Ukrainian chemistry was due to the establishment of nonferrous and rare metals, fertilizer, nuclear fuel and semiconductors, etc. industries. The 1959 - 1965 plan envisages trebled chemical production, 34 modernized plants, and 30 new ones including Razdol'skoye Sulfur combine, Chernigov Synthetic Fiber combine and others. Super-hard and creep resistant alloys, rare and ultrapure metals for nuclear power, the semiconductor and computers industries, ferromagnetics and ferroelectrics are to be given priority. Radiochemical work will be carried out with the nuclear pile designed in the Institut fiziki AN USSR (Institute of Physics AS UkrSSR). Since 1959, the following institutes have been designed: Institut mineral'nykh resursov AN USSR ✓

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Present situation and tasks...

(Institute of Mineral Resources UkrSSR) (Simferopol'), Ukgiprotsvetmet (Zaporozh'ye), Institut khimicheskikh reaktivov (Institute of Chemical Reagents) (Donetsk). Others are projected: Institut khimii redkikh elementov AN USSR (Institute of Element Chemistry AS UkrSSR), Radio-khimicheskii institut (Radiochemical Institute), Institut kolloidnoy khimii AN USSR (Institute of Colloid Chemistry AS UkrSSR). Present studies are (1) General chemical laws and the development of Mendeleev's system. (2) Synthesis and structure of inorganic compounds. (3) Chemistry of complex compounds and solutions. (4) Chemistry and technology of rare and nonferrous metals. (5) Physicochemical analysis of salt and metallic systems. (6) Chemical processing of mineral raw materials. (1) G. P. Maytak (IONKh AS UkrSSR) has deduced laws regarding the properties of isotopes and Yu. K. Delimarskiy has worked on the periodic properties of electrode potentials. (2) A. I. Brodskiy et al. studied the synthesis and structure of inorganic compounds, Yu. P. Nazarenko studied exchange reactions of Cr complexes, G. V. Samsonov examined the structures of, and developed synthesis for, borides, carbides, silicides, nitrides, and sulfides of rare earths for refractories and electrical

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Present situation and tasks...

engineering, P. G. Aleksandrov also studied rare earth compounds. V. P. Chalym and S. P. Rozhenko developed highly sensitive spinel-type ferromagnetic materials, E. M. Natanson et al. produced highly disperse metals. (3) A. K. Babko, G. I. Gridchina, and B. I. Nabivanets (IONKh AS UkrSSR) studied Ti and Zr ions in solutions, N. K. Davidenko, V. I. Yermolenko, N. A. Kostromina, Ye. Ye. Kriss, and Z. A. Sheka examined rare earths with salicylic, gluconic, trioxylglutaric acids and tributyl phosphates. Complexes were studied by N. P. Komar', V. N. Tolmachev, and L. P. Adamovich at the Khar'kovskiy universitet (Khar'kov University), by A. M. Golub, F. D. Shevchenko, A. K. Babko, M. M. Tananayko, Ye. G. Zharovskiy, A. T. Pilipenko, and I. V. Pyatnitskiy at the Kiyevskiy universitet (Kiyev University), by A. A. Morozov at the Odesskiy universitet (Odessa University), by A. M. Zharnovskiy in the Gidrometeorologicheskii institut (Hydrometeorological Institute), and by O. K. Zolotukin, K. N. Mikhalevich, and N. M. Turkevich in L'vov. In Dnepropetrovsk L. M. Volshteyn developed studies on Pt metals by I. I. Chernyayev and A. A. Grinberg. I. G. Byss (Dnepropetrovsk), L. S. Serdyuk, Yu. I. Usatenko, B. Ye. Reznik, I. L. Kukhtevich, N. A. Izmaylov, N. P. Komar', and Ya.

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Present situation and tasks...

A. Fialkov worked on complex compounds. (4) Rare-earth elements were studied by G. M. Shaposhnikov in the Institute of Mineral Raw Materials AS UkrSSR, by I. V. Vinarov, I. N. Tselik, R. I. Mogunov, A. I. Perfil'yev, R. G. Yankelevich in the IONKh AS UkrSSR, by G. V. Samsonov in the Institut metallokeramiki i spetsspavov AN USSR (Institute of Powder Metallurgy and Special Alloys AS UkrSSR), by Yu. K. Delimarskiy, I. N. Sheyko, Ts. V. Pevzner, K. F. Karlysheva, S. A. Kacherova, B. A. Voytovich, B. F. Markov, Ye. B. Gitman, Ye. P. Belyakova, A. A. Shokol, A. D. Pakhomova, L. F. Kozin, N. S. Fortunatov, D. P. Zosimovich, A. I. Zayats, and I. F. Frantsevich-Zabludovska in the Institut obshchey i neorganicheskoy khimii (Institute of General and Inorganic Chemistry). A. T. Nizhnik, V. A. Tsimmergaki together with G. M. Shteyngart and Reznichenko (zavod Elektrotsink (Elektrotsink Plant)) and the Chelyabinskiy tsinkovoy zavod (Chelyabinsk Zinc Plant) continued studies by Ya. A. Fialkov and N. V. Akselrud. G. Ya. Gornyy, Ye. S. Burkser, O. A. Kul'skaya, and N. S. Poluektov worked in the Institut geologicheskikh nauk AN USSR (Institute of Geological Sciences AS UkrSSR), and N. A. Tsibrik, M. I. Averbchenkov worked in the Institut liteynogo proizvodstva

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Present situation and tasks...

AN USSR (Institute of Foundry Work AS UkrSSR). The engineering works in Kiyev, Khar'kov, Dnepropetrovsk, Zhdanov, Berdynsk, and Riga will use zirconium supplied by the Samotkanskoje deposit. (5) Physicochemical studies were conducted by P. P. Budnikov, I. D. Panchenko, R. V. Chernov, V. V. Gusev, A. M. Ponizovskiy, and A. T. Chernyy, and also by Ye. M. Skobets in the IONKh AS UkrSSR, by V. V. Sveshnikov in the Institut metallo-fiziki AN USSR (Institute of Physics of Metals AS UkrSSR), by V. N. Yeremenko, and I. N. Frantsevich in the Institute of Powder Metallurgy and Special Alloys AS UkrSSR, by Ye. Ye. Cherkashin, P. I. Kripyakevich, Ye. I. Gladyshevskiy, and N. N. Gratsianskiy at the L'vov gosudarstvennyy universitet (L'vov State University), and also by scientists of the Fiziko-tekhnicheskii institut (Physicotechnical Institute). (6) The processing of raw materials was studied by V. A. Atroshchenko in the Khar'kovskiy politekhnicheskii Insitut (Khar'kov Polytechnic Institute), by A. S. Plygunov, A. A. Alent'yev in the Kiyevskiy politekhnicheskii institut (Kiyev Polytechnic Institute), Y. A. Berkman in the L'vovskiy politekhnicheskii institut (L'vov Polytechnic Institute), by A. S. Berezhnyy in the Khar'kovskiy institut ogneporov (Khar'kov

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Present situation and tasks...

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Institute of Refractory Materials), by B. A. Shoykhet, E. M. Karasik, L. Ye. Sologubenko (MgO production from Sivash brine solution), and D. Ya. Yevdokimov (Odessa) in the Yevpatoriyskaya laboratoriya GIPKh (Yevpatoriya Salt Laboratory GIPKh), by Ya. F. Mezhenyy at the Ukrain-skaya sel'skokhozyaystvennaya akademiya (Ukrainian Agricultural Academy), by F. D. Ovcharenko, and also by L. A. Kul'skiy, I. T. Goronovskiy, A. M. Koganovskiy, and M. A. Shevchenko in the IONKh AS UkrSSR. Studies by Ya. A. Fialkov and S. D. Shargorodskiy are being continued. ✓

ASSOCIATION: Institut obshchey i neorganicheskoy khimii AN USSR
(Institute of General and Inorganic Chemistry AS UkrSSR)

SUBMITTED: June 20, 1961

Card 6/6

KOLOTIV, A.A.; DELIMARSKIY, Yu.K.

Electrode function of platinum in melts. Part 2. Oxygen
function of platinum. Ukr. khim. zhur. 28 no.1:53-59 '62.
(MIRA 16:8)

1. Institut obshchey i neorganicheskoy khimii AN UkrSSR.

DELIMARSKIY, Yu.K.; CHETVERIKOV, A.V.

Determination of polarization voltage in fused salts by
Drossbach's method. Ukr.khim.zhur. 28 no.2:167-171 '62.
(MIRA 15:3)

1. Institut obshchey i neorganicheskoy khimii AN USSR.
(Salts) (Electrochemistry)

DELIMARSKIY, Yu. K.; BUDERASKAYA, G. G.

Solubility of titanium, zirconium, and hafnium dioxides in fused
alkali metal fluorides. Ukr. khim. zhur. 28 no.5:565-570 '62.
(MIRA 15:10)

1. Institut obshchey i neorganicheskoy khimii AN UkrSSR.

(Metallic oxides) (Solubility)
(Alkali metal fluorides)

DELIMARSKIY, Yu. K.; KAPTSOVA, T. N.; BOYKO, K. M.

Polarographic investigation with fused sodium metaphosphate as
the support. Ukr. khim. zhur. 28 no.5:595-599 '62.
(MIRA 15:10)

1. Institut obshchey i neorganicheskoy khimii AN UkrSSR.

(Polarography) (Sodium metaphosphate)

SHEN' TSIN'-NAN [Shen Ch'in-nang]; OLEYNIK, V. A.; DELIMARSKIY, Yu. K.

Decomposition potentials of titanium, molybdenum, and tungsten
oxides dissolves in fused borax. Ukr. khim. zhur. 28 no.5:599-604
'62. (MIRA 15:10)

1. Institut obshchey i neorganicheskoy khimii AN UkrSSR.

(Metallic oxides) (Borax) (Electromotive force)

DELMARSKIY, Yu. K.; VLASYUK, N. V.

Polarization phenomena in melts on a solid electrode of the same metal. Ukr. khim. zhur. 28 no.6:688-692 '62.

(MIRA 15:10)

1. Institut obshchey i neorganicheskoy khimii AN UkrSSR.

(Fused salts—Electric properties)

DELMATSKIY, Yu.K.; KAPTSOVA, T.N.

Polarographic investigation with fused sodium metaphosphate as the support. Part 2: Polarography of copper, silver, cadmium, and lead oxides. Ukr. khim. zhur. 28 no.7:802-802 '62. (MIRA 15:12)

1. Institut obshchey i neorganicheskoy khimii AN UkrSSR.
(Metallic oxides) (Polarography)

DELIMARSKIY, Yu.K.; GORODYSKIY, A.V.

Progress of polarography on solid electrodes (survey). Zav.
lab. 28 no.9:1036-1042 '62. (MIRA 16:6)

(Polarography)

DELIMARSKIY, Yu.K.; GORODYSKIY, A.V.; SHAPOVAL, V.I.

Analysis of polarograms of the reversible isolation of
metals from melts. Ukr.khim.zhur. 28 no.9:1037-1041
'62. (MIRA 15:12)

1. Institut obshchey i neorganicheskoy khimii AN UkrSSR.
(Fused salts) (Polarography)

34971
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D204/D302

18.3100
AUTHORS:

Delimarskiy, Yu. K., Pavlenko, I. G., Roms, Yu. G.
and Melnikov, V. I.

TITLE:

Electrolytic preparation and refinement of Bi in melts

PERIODICAL:

Zhurnal prikladnoy khimii, v. 35, no. 2, 1962, 317-321

TEXT: Direct production and purification of Bi were carried out in (a) a ternary eutectic of 48 mol.% $PbCl_2$, 35 KCl and 17 NaCl, and (b) a eutectic of 36 mol.% NaCl, 47 $CaCl_2$ and 17 $BaCl_2$, by the method of anodic solution. The apparatus used is illustrated and described. The experiments were carried out at $500 \pm 20^\circ C$, in porcelain or alumina crucibles, using Mo cathodes, while the Bi alloys were melted and served as anodes. A description of the procedure is given. Study of the removal of Pb from 85Bi15Pb alloys, using electrolyte (a) showed that the time of purification decreased (from 3 1/2 to 1 hour) when the current density was raised from 0.25 to 0.83 amp/cm². The current efficiency was 80 - 90%. Practically all

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Electrolytic preparation and ...

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Ag and Cu in the original alloy were removed together with the Pb. Measurements of the anode potential showed this quantity to be accurately determined by the extent of purification, increasing from 0.08 - 0.14 V to 0.36 - 0.4 V as the Pb was removed. It is, therefore, believed that the process could be controlled automatically by a simple potentiometric method. Transfer of Bi to the cathode was also investigated, at 0.5 amp/cm², on a 75Bi25Pb alloy, finding that the Bi increased at first slowly and then rapidly, up to 1% in the cathode Pb, when ~92 - 98% of the anode Pb was dissolved, decreasing thereafter to 0.6 - 0.9%. The results are discussed. Using electrolyte (b) and commercial Bi containing 2.5% Pb, 0.3% Ag and 0.007% Cu, at 0.17 amp/cm² and at 550°C, it was found that higher purifications could be achieved. The lead was reduced to < 0.001%, Cu to ~0 and Ag to 0.01%. The results were confirmed on repeating the process on a larger scale with commercial lead containing 16.8% Bi and admixtures of Ag, Cu and Sb. There are 5 figures and 13 references: 9 Soviet-bloc and 4 non-Soviet-bloc. The references to the English-language publications read as follows: G. Cleary and D. Cubicciotti, J. Am. Chem. Soc., 74, 557, (1952);

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Electrolytic preparation and ...

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F. I. Kereshea and D. Cubicciotti, J. Phys. Chem., 62, 7, 843,
(1958); I. Corbett, ibid., 62, 9, 1149, (1958).

ASSOCIATION: Institut obshchey i neorganicheskoy khimii AN USSR
(Institute of General and Inorganic Chemistry of the
AS UkrSSR)

SUBMITTED: March 18, 1961

✓

Card 3/3

S/080/62/035/002/010/022
D202/D302

AUTHORS: ~~Delimarskiy, Yu. K.~~, Pavlenko, I. C. and Zarubitskiy,
O. G.

TITLE: Electrolytic refining of lead from bismuth

PERIODICAL: Zhurnal prikladnoy khimii, v. 35, no. 2, 1962, 322-327

TEXT: The authors carried out experiments on separating Bi from lead by the electrolysis of molten lead, using molten Pb with definite Bi contents as a liquid cathode, with fused NaOH as the electrolyte, and molten Pb in the anode compartment as a liquid anode. The effects of time of electrolysis on the concentration of Bi in the cathode and anode compartments was studied, starting with Pb of different Bi contents. The influence of the current density on the cathode and the combined effect of these factors on the specific electric energy consumption A-h/kgPb were also investigated. It was found that after 9 hours at 340°C, with a current of 50 amp and a voltage of 2.4 V the amount of bismuth in lead could be reduced from 1.43 to 0.06% and from 0.5 to 0.0019% in the ca-

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Electrolytic refining of ...

thode compartment. It may also be increased from 0.0085 to 3% in the anode compartment, when the Pb in it is used once; by reusing it twice the amount of Bi in this compartment may rise to 10 ... 15%. The energy consumption A-h/kgPb depends on the initial Bi content in lead, and the degree of its refining, becoming lower at lower current densities, although the process takes longer. The proposed method is considered suitable for industrial use. After discussing possible cathodic and anodic reactions (on data taken from Western literature) the authors state that their preliminary experimental results lead the way to further investigations for better elucidation of the mechanism and kinetics of the process. There are 6 figures, 1 table and 15 references: 7 Soviet-bloc and 8 non-Soviet-bloc. The 4 most recent references to the English-language publications read as follows: T. R. A. Davey, J. Metals, 3, 341, 1956; J. C. Dittmer (to National Lead Co.), US Pat. 2,402,316, 18 VI 1946 and 2,507,096, 9V 1950; O. Kubaschewski and J. A. Catterall, Thermochemical data of alloys, London, N-Y, 26, 1956.

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Electrolytic refining of ...

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D202/D302

ASSOCIATION: Institut obshchey i neorganicheskoy khimii AN USSR
(Institute of General and Inorganic Chemistry of the
AS UkrSSR)

SUBMITTED: March 18, 1961

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Card 3/3

GORODYSKIY, A.V.; DELIMARSKIY, Yu.K., akademik; PANOV, E.V.

Impedance of a double electric layer in melts. Dokl. AN SSSR
146 no.1:129-130 S '62. (MIRA 15:9)

1. Institut obshchey in neorganicheskoy khimii AN USSR.
2. AN USSR (for Delimarskiy).
(Fused salts--Electric properties)

DELIMARSKIY, Yu.K., akademik; SHAPOVAL, V.I.

Oscillographic polarography with a given sinusoidal voltage for studying fused electrolytes. Dokl. AN SSSR 146 no.2:391-393 S '62. (MIRA 15:9)

1. Institut obshchey i neorganicheskoy khimii AN SSSR. 2. AN UkrSSR (for Delimarskiy).
(Fused salts) (Polarography)

SKOBETS, Yevgeniy Moiseyevich, doktor khim. nauk; SKOBETS, Vera Dmitriyevna, khimik; DELIMARSKIY, Yu.K., akademik, retsenzent; TSYBA, L.A., inzh., red.izd-va; BEREZOVYY, V.N., tekhn. red.

[Derivative polarography] Proizvodnaia poliarografiia. Kiev, Gostekhizdat, 1963. 112 p. (MIRA 16:12)

1. Akademiya nauk Ukr. SSR (for Delimarskiy). (Polarography)

DELMARSKY, Y. K.

"Investigation of Complex Formation in Salt Melts"
Institute of General and Inorganic Chemistry, Kiev, USSR.

19th International Congress on Pure and Applied Chemistry,
London, 10-17 July 1963

KOLOTIY, A.A. , kand.tekhn.nauk; DELIMARSKIY, Yu.K., akademik

Electrochemical investigation of the system SnCl_2 - KCl . Sbor.
trud. TSNIICM no.34:28-33 '63. (MIRA 27:4)

DELINARSKIY, Yu.K., akademik; CHETVERIKOV, A.V., kand.tekhn.nauk;
PAVLENKO, N.A., inzh.

Effect of iron chloride on current efficiency during electrolysis
in fused SnCl_2 - KCl with the use of liquid tin electrodes.
Sbor. trud. TSNIICHM no.34:40-44 '63. (MIRA 17:4)

KOLOTIY, A.; DELIMARSKIY, Yu.K.

Electrochemical study of the system $\text{SnCl}_2 - \text{KCl}$. Zhur.neorg.khim.
8 no.1:163-166 Ja '63. (MIRA 16'5)

1. Institut obshchey i neorganicheskoy khimii AN UkrSSR.
(Fused salts) (Electrochemical analysis)

DELMARSKIY, Yu.K.; GRISHCHENKO, V.F.

Capacitance of the double layer in binary melts CdCl_2 - KCl and CdCl_2 - NaCl . Zhur.neorg.khim. 8 no.4:1016-1017 Ap '63. (MIRA 16:3)
(Fused salts--Electric properties)

DELMARSKIY, Yu.K.; TUMANOVA, N.Kh.

Polarographic investigation with fused carbonates as the support. Part 1: Polarography of iron, cobalt, and nickel oxides. Ukr. khim. zhur. 29 no.4:387-393 '63. (MIRA 16:6)

1. Institut obshchey i neorganicheskoy khimii AN UkrSSR.
(Metallic oxides) (Polarography)
(Carbonates)

DELIMARSKIY, Yu.K.; GRISHCHENKO, V.F.; GORODYSKIY, A.V.

Shift of polarograms during complex formation. Ukr.khim.zhur. 29 no.5:
497-502 '63. (MIRA 16:9)

1. Institut obshechey i neorganicheskoy khimii AN UkrSSR.

DELMARSKIY, Yu. M.; GRISHCHENKO, V. F.

Use of a platinum electrode in the polarographic study of complex formation in melts. Ukr. khim. zhurn. 29 no. 5: 502-507 1963.

Potentiometric study of chloride complexes of lead, cadmium, and nickel in a fused eutectic composition $\text{KNO}_3 - \text{NaNO}_3$. 507-511 (MIRA 16:9)

1. Institut obshchey i neorganicheskoy khimii AN UkrSSR.

L 17/03-63

EWP(q)/EWT(m)/BDS AITTC/ASD JDD/WE

ACCESSION NR: AP3003994

S/0073/63/029/007/0714/0722

AUTHORS: Karytova, T. N.; Delimarskiy, Ya. K.

TITLE: Polarographic analysis of vanadium, molybdenum, tungsten, and iron oxides fused with sodium metaphosphate

SOURCE: Ukrainskiy Khimicheskiy zhurnal, v. 29, no. 7, 1963, 714-722

TOPIC TAGS: germanium, vanadium, tungsten, molybdenum, polarography, iron, sodium

ABSTRACT: This study is a continuation of a previous polarographic study of metal oxides in a fused media of sodium metaphosphate. The present study is made of GeO_2 , V_2O_5 , MoO_3 , WO_3 , and Fe_2O_3 oxides in the same media. The reduction of germanium takes place in a stepwise procedure with subsequent formation of phosphides. At low concentrations of GeO_2 , only one break is observed. It was established that the oxides of vanadium, tungsten and molybdenum are reduced only to their trivalent state during the electrolysis in the phosphate bath as established by polarographic analysis. The reduction of iron oxide takes place in two stages. Their half-wave potentials are close to each other. The obtained polarographic maximums are explained by the depolarizing action of the adsorbed products of electrolysis at the electrode. The activation energy of the diffusion current was calculated for all studied oxides. Orig. art. has: 3 tables,

Card 1/2

L 17703-63

ACCESSION NR: AP3003994

8 figures, and 9 formulas.

ASSOCIATION: Institut obshchey i neorganicheskoy khimii AN UkrSSR (Institute of general and inorganic chemistry, Academy of Sciences, UkrSSR)

SUBMITTED: 26Jul62

DATE ACQ: 15Aug63

ENCL: 00

SUB CODE: CH, EL

NO REF SOV: 009

OTHER: 002

Card 2/2

DELMARSKIY, Yu.K.; ROMS, Yu.G.

Thermodynamic properties of $PbCl_2$ in ternary eutectic $PbCl_2$ -
 KCl - $NaCl$. Ukr. khim. zhur. 29 no.3:781-784 '63.

(MIRA 16:11)

1. Institut obshchey i neorganicheskoy khimii AN UkrSSR.

DELIMARSKIY, Yu.K.; OGNYANIK, S.S.

Polarographic study of slags. Part 1: Solutions of oxides of chromium, molybdenum, and tungsten. Ukr. khim.zhur. 29 no.9: 932-939 '63. (MIRA 17:4)

1. Institut obshchey i neorganicheskoy khimii AN UkrSSR i Institut elektrosvarki im. Ye.O.Patona AN UkrSSR.

GORODYSKIY, A.V.; DELIMARSKIY, Yu.K.; PANOV, E.V.; BALEZIN, E.A.

Method of low-frequency polaroscopy and a universal device
for recording polarization curves. Zav. lab. 29 no.9:1035-
1041 '63. (MIRA 17:1)

1. Institut obshchey i neorganicheskoy khimii AN UkrSSR.

DELIMARSKIY, Yu.K.; PAVLENKO, I.G.; ZARUBITSKIY, O.G.

Electrochemical separation of lead and bismuth with the formation
of intermetallic compounds. 'Svet. met. 36 no.9:85-88 S '63.
(MIRA 16:10)

DELMARSKIY, Yu.K.; KOLOTIY, A.A.

RUSSIAN RESEARCHERS

Equilibrium potentials of iron and tin in molten FeCl_2 - KCl and SnCl_2 - KCl and the equilibrium constant of the reaction $\text{Sn} + \text{FeCl}_2 \rightleftharpoons \text{Fe} + \text{SnCl}_2$. Zhur. prikl. khim. 36 no.9:1929-1932 D '63. (MIRA 17:1)

1. Institut obshchey i neorganicheskoy khimii AN UkrSSR.

GORODYSKIY, A.V.; DELIMARSKIY, Yu.K., akademik; GRISHCHENKO, V.F.

Catalytic waves in molten electrolytes. Dokl. AN SSSR 150
no.3:578-579 My '63. (MIRA 16:6)

1. Institut obshchey i neorganicheskoy khimii AN UkrSSR.
2. AN UkrSSR (for Delimarskiy).
(Fused salts) (Polarography)
(Catalysis)

DELIMARSKIY, Yu.K. [Delimars'kiy, Yu.K.], akademik; SHILINA, G.V.
[Shylina, H.V.]

Polarographic study using a molten mixture of
 LiNO_3 - KNO_3 - NaNO_3 as the support under conditions of
convective diffusion. Dop. AN URSR no. 6:770-773 '64.
(MIRA 17:9)

1. Institut obshchey i neorganicheskoy khimii AN UkrSSR.
2. AN UkrSSR (For Delimarskiy).

DELIMAREKIY, Yu. K.; SHILINA, G. V.

"Cathodic reduction of halogens in fused salts under conditions of convective diffusion."

report presented at 15th Mtg, Intl Comm of Electrochemical Thermodynamics & Kinetics, London & Cambridge, UK, 21-26 Sep 1964.

Inst of General & Inorganic Chemistry, AS UkSSR, Kiev.

DELIMARSKIY, Yu. K.

"The kinetics of the electrode process in the electrolysis of fused salts."

report submitted for 10th Anniv Festivities, Leuna-Merseburg Tech Inst for
Chemistry, Leuna-Merseburg, E. Germany, 2-7 Nov 64.

STENDER, V.V., *otv. red.*; ZOSIMOVICH, D.P., *zam. otv. red.*;
DELIMARSKIY, Yu.K., *red.*; LOSHKAREV, M.A., *red.*; NECHAYEVA,
N.Ye., *red.*; NIKIFOROV, A.F., *red.*; BYCHKOVA, R.I., *red.*

[Hydroelectrometallurgy of chlorides; reports] Gidroelektro-
metallurgiya khloridov; doklady. Kiev, Naukova dumka, 1964.
178 p. (MIRA 17:11)

1. Vsesoyuznyy seminar po prikladnoy elektrokhimii. 5th,
Dnepropetrovsk, 1962. 2. Dnepropetrovskiy khimiko-
tekhnologicheskii institut (for Stender).

DELIMARSKIY, Yu.K. [Delimars'kiy, IU.K.], akademik; KOSMATYY, Yu.Ye.
~~[Kosmatyy, IU.IE.]~~; KOLOTIY, A.A.

Platinum and platinum-glass reference electrodes for silicate-
chloride and chloride melts. Dop. AN URSR no.9:1192-1194 '64.
(MIRA 17:11)

1. AN UkrSSR (for Delimarukiy).

DELMARSKIY, Yu.K.; TUMANOVA, N.Kh.

Polarographic investigation on fused carbonates as the support.
Part 2: Polarography of the oxides of zinc, copper, cadmium,
and lead. Ukr. khim. zhur. 30 no.1:52-56 '64. (MIRA 17:6)

1. Institut obshchey i neorganicheskoy khimii AN UkrSSR.

DELIMARSKIY, YU.F. GORODYSKIY, A.V.

Second Conference on the Physical Chemistry and Electrochemistry
of Fused Salts and Slags. Ukr.khim.zhur. 30 no.5:538-540 '64.
(MIRA 18:4)

DELIMARSKIY, Yu.K.; ROME, Yu.G.

Solubility of bismuth in fused bismuth chloride. Ukr.khim.zhur.
30 no.5:457-460 '64. (MIRA 18:4)

1. Institut obshchey i neorganicheskoy khimii AN UkrSSR.

DELIMARSKIY, Yu.K.; SHAPOVAL, V.I.; GORODYSKIY, A.V.

Measurement of Faraday impedance of the system Ni/Ni in a
KCl-NaCl fused mixture. Ukr. khim. zhur. 30 no.7:677-682
'64 (MIRA 1811)

1. Institut obshchey i neorganicheskoy khimii AN UkrSSR.

26986-65 BNT(m)/ENP(t)/ENP(b) IJP(c) JD

ACCESSION NO: AP5003860

8/0073/61/030/00770682/0688

AUTHOR: Tushova, N. Kh.; Dalimarskiy, Yu. K.

TITLE: Polarography against a background of molten carbonates. III. Thallium, bismuth, and dichromate

SOURCE: Ukrainskiy khimicheskiy zhurnal, v. 30, no. 7, 1964, 682-688

TOPIC TAGS: thallium, bismuth, chromate, polarography.

Abstract: Polarographic waves were taken against a background of the molten eutectic $K_2CO_3-Li_2CO_3$, using stationary gold electrodes. $K_2Cr_2O_7$, $TiNO_3$, and Bi_2O_3 were introduced into the molten eutectic as depolarizers. The correctness of the equation $i_d = kI$ for the investigated systems was demonstrated. The dependence of the limiting current on the temperature was studied for solutions of $K_2Cr_2O_7$ and Bi_2O_3 , and the activation energy of the limiting current was calculated. It was established that the polarograms obtained are described better by the Geyrovskiy-Ill'kovich equation than by the Kolthoff-Lingane equation. Polarization curves were obtained by a polaroscopic method for solutions of $K_2Cr_2O_7$ and Bi_2O_3 . Irreversibility of the process in the reduction of dichromate from a molten eutectic of $K_2CO_3-Li_2CO_3$ was proposed. Orig. art. has 4 formulas, 9 graphs, and 5 tables.

Card 1/2

L 20986-65

ACCESSION NR: AP5003860

ASSOCIATION: Institut obshchey i neorganycheskoy khimii AN UkrSSR (Institute of General and Inorganic Chemistry, AN UkrSSR)

SUBMITTED: 30 May 63

ENCL: 00

SUB CODE: OP, IC

NO REF SUB: 007

OTHER: 003

JPRS

Card 2/2

TR MANGVA, N.Kh.; DELIMARSKIY, Yu.K.

Polarographic study with fused carbonates as the support. Part 4:
Polarography of halide, nitrite, and sulfite ions. Ukr. khim. zhur.
30 no.8:796-801 '64. (MIRA 17:11)

1. Institut obshchey i neorganicheskoy khimii AN UkrSSR.

SHILINA, G.V.; DELEMARSKIY, Yu.K.

Polarographic study of alkali metal chlorides with fused electrolyte of $\text{LiNO}_3 - \text{NaNO}_3 - \text{KNO}_3$ as the support. Ukr. khim. zhur. 30 no.10: 1045-1051 '64. (MIRA 17:11)

1. Kiyevskiy tekhnologicheskii institut pishchevyykh promyshlennosti.

I 20757-65 EWT(m)/EWP(b)/T/EWP(t) IJP(c) JD/JG
ACCESSION NR: AP5000475 S/0073/64/030/011/1146/1151

AUTHOR: Delimarskiy, Yu. K.; Kuz'movich, V. V.

TITLE: Investigation of the thermal dissociation of molten alkali metal carbonates

SOURCE: Ukrainskiy khimicheskiy zhurnal, v. 30, no. 11, 1964, 1146-1151

TOPIC TAGS: alkali metal carbonate, thermal dissociation, dissociation inhibition

ABSTRACT: The study was conducted to find a simple method for rapidly determining the degree of alkali metal carbonate thermal dissociation which could be used for instantaneously controlling the composition of the electrolyte in the galvanic bath of the fuel element. The thermal dissociation of molten mixtures of Li_2CO_3 and K_2CO_3 was determined at 700-750C for 120, 396 and 600 hours in air, argon and carbon dioxide atmospheres. Polarographic determinations were inaccurate due to the formation of oxide coatings on the electrode. Titration of the free alkali in aqueous solutions of the melt did not determine the alkalinity resulting from thermal dissociation only. The method proposed for determining

Cont 1/2

L.20757-65

ACCESSION NR: AF5000475

2

the extent of carbonate thermal dissociation was based on measuring the pH of aqueous solutions of samples of the melt using a glass electrode with a saturated calomel reference electrode: $\text{pH} = 7 + (1/2\text{p}K_2) + (1/2\lg C_{\text{salt}})$; since $-\lg K_2$ (carbonic acid) = 10.2, $\text{pH} = 7 + 5.1 + (1/2\lg C_{\text{salt}})$. It was determined that the thermal dissociation of a mixture of molten Li_2CO_3 and K_2CO_3 was about the same in air or argon atmospheres and did not exceed 1 wt. % at 700 and 750°C. A CO_2 atmosphere protected these molten mixtures from thermal dissociation. Orig. art. has: 3 figures, 1 table and 8 equations.

ASSOCIATION: Institut obshchey i neorganicheskoy khimii AN Ukr SSR (Institute of General and Inorganic Chemistry AN Ukr SSR)

SUBMITTED: 30Dec63

ENCL: 00

SUB CODE: GC, IC

NO REF SOV: 007

OTHER: 004

Card 2/2

ROMS, Yu.G.; DELLIMARSI IY, Yu.K.

Thermodynamic properties of AgCl dissolved in HbCl_2 - KCl - NaCl
melt of eutectic composition. Ukr.khim.zhur. 30 no.11:1155-1156
'64. (MIRA 18:2)

1. Institut obshchey i neorganicheskoy khimii AN UkrSSR.

L 20758-65 EWT(m)/T ASD(m)-3 RWH
ACCESSION NR: AP5000476 S/0073/64/030/011/1156/1158

AUTHOR: Delimarskiy, Yu. K.; Kikhno, V. S. B

TITLE: Determination of the zero points of certain solid metals in molten NaCl-KCl mixtures by measuring the capacitance of the double layer

SOURCE: Ukrainskiy khimicheskiy zhurnal, v. 30, no. 1, 1964, 1156-1158

TOPIC TAGS: nickel, silver, chromium, manganese, zero point

ABSTRACT: The capacitance was measured of the double layer between solid Ni, Ag, Cr and Mn electrodes and the molten NaCl-KCl electrolyte under dry argon at 700C. In all the capacitance-potential curves the capacitance of the double layer decreased to a minimum with increasing cathodic polarization, and then increased; the potential minimum depended only on the metal. In comparison to a silver electrode the values, in volts, were: Ni, -0.72; Ag, -0.80; Cr, -1.16; Mn, -1.70. The capacitance minima were higher for solid electrodes than for the corresponding liquid electrodes. The actual surface of the solid metal in compar-

Card 1/2

L 20758-65

ACCESSION NR: AP5000476

ison to the apparent surface was calculated from these capacitance values: for Ni and Ag the coefficient was 3-3.5; for the more porous Cr and Mn, the value was higher. The zero point of Ag in comparison to a chlorine electrode was -1.89v. Orig. art. has: 1 figure

ASSOCIATION: Institut obshchey i neorganicheskoy khimii AN Ukr SSR (Institute of General and Inorganic Chemistry AN Ukr SSR)

SUBMITTED: 23Apr64

ENCL: 00

SUB CODE: IC, GC

NO REF SOV: 008

OTHER: 003

Card2/2

DELMARSKIY, Yu. K.; ZARUBITSKIY, O.G.; PAVLENKO, I.O.

Solubility of some sodium intermetallic compounds in a fused
alkali. Ukr. khim. zhur. 30 no.12:1289-1292 '64
(MIRA 18:2)

1. Institut obshchey i neorganicheskoy khimii AN UkrSSR.

DELIMARSKIY, Yu.K., akademik; GORODYSKIY, A.V., kand.khim.nauk

Conference on Physical Chemistry and the Electrochemistry of
Molten Salts and Slags held in Kiev. Vest. AN SSSR 34 no.3:
127-129 Mr '64. (MIRA 17:4)

1. AN UkrSSR (for Delimarskiy).

DELIMARSKIY, Yu.K.; KUZ'MOVICH, V.V.

Use of a dropping bismuth electrode in polarography of fused
salts at high temperatures. Zhur.prikl.khim. 37 no.7:1490-
1494. J1 '64. (MIFA 18:4)

DELIMARSKIY, Yu.K.; VLASYUK, N.V.

New type of polarization in the electrolysis of fused salts.
Zhur. fiz. khim. 38 no.12:2962-2964 D '64.

(MIRA 18:2)

1. Institut obshchey i neorganicheskoy khimii AN UkrSSR.

DELIMARSKIY, Yu.K., akademik; GORODYSKIY, A.V.; GRISHCHENKO, V.F.

Cathode liberation of carbon from molten carbonates. Dokl.
AN SSSR 156 no. 3:650-651 '64. (MIRA 17:5)

1. Inst'tut obshchey i neorganicheskoy khimii AN UkrSSSR.
2. AN UkrSSSR (for Delimarskiy).

DELMARSKIY, Yu.K.; ANDREYEVA, V.N.; KIL'KASH, E.M.

Reaction of metal oxides with lead at the cathode of a lead-acid battery.

AN OSER. Neorg. mat. 1 no.1:189-190 Jan '88.

(1988186)

1. Kiyevskiy tekhnologicheskii, Institut khimicheskoy promyshlennosti.

DELIMARSKIY, Yu.K.; ZARUBITSKIY, O.G.; PAVLENKO, I.G.

Migration of intermetallic compounds in fused caustic soda.
Ukr.khim.zhur. 31 no.5:469-474 '65.

(MIRA 18:12)

1. Institut obshchey i neorganicheskoy khimii AN UkrSSR.
Submitted Febr. 4, 1964.

L 5153-65 EWI(m)/EBO(m)/I/BIP(b)/EWP(z)/WPF(b) Ed IJP(s) EWI/JD/EM
 ADDRESS: AP5010789 100/0021/65/000/004/0405/0487
 AUTHOR: Delinars'ky, Yu. K. (Delinarskiy, Yu. K.) (Academician USSR); Zarubitskiy, O. G. (Zarubitskiy, O. G.)
 TITLE: Impedance of a nickel electrode in an alkaline melt 25
 SOURCE: IN USSR. Dopyvidi, no. 4, 1965, 85-487 28
 TOPIC TAGS: electrochemistry, metal refining, alkaline melt, nickel electrode, 13
 polarization
 ABSTRACT: To investigate the behavior of nickel as an electrode for the use of re-
 fining of nonferrous metals, the authors studied the behavior of nickel in fused
 caustic soda at 300°C by plotting the differential capacity and ohmic resistance of
 the electrode. The capacitance has a maximum when the electrode potential drop is
 approximately 0.8--0.9 V, and its value (10--110 $\mu\text{F}/\text{cm}^2$) is approximately the same
 as for fresh metal. The character of the variation of the impedance components as
 the cathode becomes polarized is investigated and the influence of electrochemical
 processes on the values of these parameters is considered. It is concluded that
 the large increase in capacitance is due to the release of sodium. Orig. art. has:
 Card 1/2

L 51531-65

ACCESSION NR: AP5010789

3 figures.

ASSOCIATION: Instytut zagal'noyi ta neorganichnoyi khimiyi AN URSR [Institute of General and Inorganic Chemistry, UkrSSR] Institute of General and Inorganic Chemistry, UkrSSR)

SUBMITTED: 16May64

INCL: 00

SUB CODE: GC

RE REF SOV: 001

OTHER: 002

Card 2/2

DELIMARSKIY, Yu.K. [Delimars'kiy, IU.K.], akademik; ZARUBITSKIY, O.G.
[Zarubyts'kyi, O.H.]

Polarography of sodium bismuthide with alkali melt as the support.
Dop. AN URSR no.5:619-621 '65. (MIRA 18:5)

1. Institut obshchey i neorganicheskoy khimii AN UkrSSR.
2. AN UkrSSR (for Delimarskiy).

L 5284-66 EWP(m)/EWP(i)/EWP(t)/EWP(b) JD

ACC NR: AF5022057

SOURCE CODE: UR/0285/65/000/014/0104/0104

AUTHORS: Delimarskiy, Yu. K.; Gerodyskiy, A. V.; Bykova, M. I.

ORG: none

TITLE: A method for electrolytic cadmium-plating. (Class 48, No. 173087)

SOURCE: Byulleten' izobreteniy i tovarnykh znakov, no. 14, 1965, 104

TOPIC TAGS: cadmium, electrolysis, electrolyte, metal plating, cadmium chloride, sodium chloride

ABSTRACT: This Author Certificate presents a method for electrolytic cadmium-plating. To prevent hydrogenation and formation of dense sediments capable of firm adhesion to the base metal, the deposition from cadmium chloride and sodium chloride is employed at the current density on the order of 100 a/dm^2 and the temperature of 420-450C.

SUB CODE: MM/

SUBM DATE: 24Dec62/

ORIG REF: 000/

OTE REF: 000

60
Card 1/1

DELIMARSKIY, Yu.K.; GRISHCHENKO, V.F.; GORODYSKIY, A.V.

Reactions taking place during electrolysis of fused carbonates.
Ukr. khim. zhur. 31 no.1:32-37 '65. (MIRA 18:5)

1. Institut obshechey i neorganicheskoy khimii AN UkrSSR.

DELIMARSKIY, Yu.K.; KIKHNO, V.S.

Determination of the zero points of some solid metals in a fused mixture of NaCl-KCl by measuring the double layer capacity. Ukr. khim. zhur. 31 no.1:116-117 '65. (MIRA 18:5)

1. Institut obshchey i neorganicheskoy khimii AN UkrSSR.

L 32079-65 E.T(m)/AWP(t)/WP(t)/EWA(h) Feb 14 P(c) JD
 ACCESSION NR: AP5006088 S/C073/65/031/002/01/9/0181

AUTHOR: Delisarskiy, Yu. I.; Kosmatyy, M. Ye.

TITLE: Anode yield in relation to current during the electrolysis of lead in a silicate-chloride melt 18 17

SOURCE: Ukrainskiy khimicheskii zhurnal, v. 31, no. 2, 1965, 173-181

TOPIC TERMS: electrolytic refining, lead silicate, lead chloride, current density, silicate chloride electrolyte, lead refining, anode yield, lead antimonate

ABSTRACT: Earlier work showed that a satisfactory electrolyte for the electrolytic refining of lead is $PbSiO_3 + 1.27 PbO + 2PbCl_2$. The present study concerned anodic dissolution of lead in this melt. The latter was prepared from the calculated quantities of PbO , $PbCl_2$ and ground quartz. Tests were conducted with lead antimonate as the anode at 600C in a corundum electrolyzer, the structure of which is illustrated. High current densities were applied (0.9216-2.0321 amps/cm²), simulating semi-manufacturing conditions. In all tests the anode yield considerably exceeded the theoretical yield calculated for the bivalent metal. Corrosion proceeded simultaneously with anode dissolution according to the equation $Pb + Pb^{2+} \rightarrow Pb^{+}$.

Card 1/1

3. 3207-65

ACCESSION NO: AP5006088

Tests were conducted to determine the amount of lead auto-dissolution in relation to the current and subsequently the proportions of uni- and bivalent lead. With increasing current density, the proportion of univalent ions increased, and the value of the mean valence decreased. This was explained by dissolution of lead in its oxide and chloride, representing additive chemical and electrochemical processes. The higher current density used in these experiments significantly increased the anode yield (from 115 to 155.59% with respect to the current. Orig. art. has: 1 figure, 1 table and 3 formulas.

ASSOCIATION: Institut obshchey i neorganicheskoy khimii AN UkrSSR (General and Inorganic Chemistry Institute, AN UkrSSR)

SUBMITTED: 10Mar64

ENCL: (4)

SUB CODE: IC, IM

NO REF SOV: 016

OTHER: 000

Cord 1/2

DELIMARSKIY, Yu.K.; ZARUBITSKIY, O.G.

Cathodic refining of tin in melts. Ukr. khim. zhur. 31 no.4:
417-418 '65. (MIRA 18:5)

1. Institut obshchey i neorganicheskoy khimii AN UkrSSR.

DELIANSKIY, Ye. K., SHILANK, G. V.

Polarographic study with a molten mixture of LiNO_3 - NaNO_3 - KNO_3 as a support under conditions of convective diffusion.
Elektrokhimiya 1 no.5:532-537 My '65. (MIRA 18:6)

1. 1- Institut obshchey i neorganicheskoy khimii AN UkrSSR i
Kiyevskiy tekhnologicheskyy institut pishchevoy promyshlennosti.

DELIMARSKIY, Y.I.K.; ZARUBITSKIY, O.G.; PAVLENKO, I.G.

Anode processes in alkaline melts involving intermetallic compounds.
Ukr. khim. zhur. 31 no.6:573-578 '65. (MIRA 18:7)

1. Institut obshchey i neorganicheskoy khimii AN UkrSSR.

DELMARSKIY, Yu.K.; GORODYSKIY, A.V.; PANOV, E.V.

Measurement of silver exchange currents in fused salts. Ukr. khim.
zhur. 31 no.8:782-785 '65. (MIRA 18:9)

1. Institut obshchey i neorganicheskoy khimii AN UkrSSR.

~~DELIMARSKIY, Yu. K.~~; NAZARENKO, G.D.

Solubility of metal oxides in molten borax. Ukr. khim. zhur. 31
no.8:815-817 '65. (MIRA 18:9)

1. Institut obshchey i neorganicheskoy khimii AN UkrSSR.

DELMONTE, M.E.; LEBLANC, J.G.; PABLOTTI, J. *Electrochim. Acta* 1965, 10, 1001-1004.

Electrochemical processes in melts involving intermolecular
compounds. Zhur. prikl. khim. 38 no.2:216-82. Ap '65.
(RERA 18:6)

1. Institut obshchey i neorganicheskoy khimii AN URSR.

DELIMATSKIIY, Yu. K.; KIRKHOV, V. S.

Determination of zero points of tantalum and beryllium in fused
sulfates. Ukr. khim. zhurn. 31 no.8:872-873 '65. (MIRA 18:9)

1. Institut obshchey i neorganicheskoy khimii AN UkrSSR.

DELIMARSKIY, Yu.K.; ROMS, Yu.G.

Thermodynamic properties of CuCl and BiCl_3 in the ternary eutectic melt $\text{PbCl}_2 - \text{KCl} - \text{NaCl}$. Ukr. khim. zhur. 31 no.10:1060-1065 '65.
(MIRA 19:1)

1. Institut obshchey i neorganicheskoy khimii AN UkrSSR. Submitted May 12, 1964.

L 13083-56 EWT(m)/EPF(n)-2/EWP(1)/EWP(2)/EWP(b) IJP(c) JI/WW/HW/JC/WB/MJW(CL)
 ACC NR: AP6002220 (A) SOURCE CODE: UR/0080/65/038/012/2835/2841

AUTHOR: Belimarskiy, Yu. K.; Zarubitskiy, O. G.; Pavlenko, I. G.

ORG: Institute of General and Inorganic Chemistry AN UkrSSR (Institut obshchey i neorganicheskoy khimii AN UkrSSR)

TITLE: Corrosion and passivation of metals in molten sodium hydroxide

SOURCE: Zhurnal prikladnoy khimii, v. 38, no. 12, 1965, 2835-2841

TOPIC TAGS: nickel, tungsten, corrosion, electrochemistry, sodium hydroxide, potentiometer, electrolysis, electrode

ABSTRACT: The electrolytic behavior of nickel and tungsten in molten sodium hydroxide was studied using a setup shown in Fig. 1. The test temperature was $340 \pm 2^\circ \text{C}$. The capacitance scattering and resistivity of nickel and tungsten electrodes in molten NaOH are shown. It was found that passivation of nickel in molten NaOH is reflected in increased differential capacitance and in decreased electrolyte resistivity. No such behavior was observed in the case of a tungsten electrode. The presence of Na_3Bi in molten NaOH is reflected in increased capacitance scattering

Cord 1/3

L 1308-46

ACC NR: AP6002220

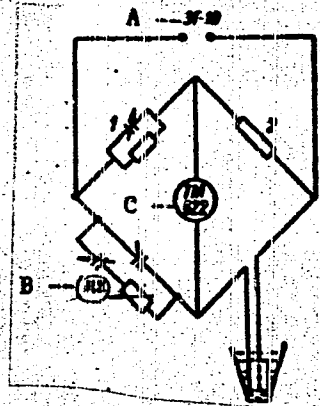


Fig. 1. Schematic setup for studying, electrode impedance.

A - ZG-10 generator; B - external standard;
C - TH-622 potentiometer; 1 - capacitance;
2 - resistor.

Card 2/3

L: 13083-66

ACC NR: AP6002220

and reduced resistivity of the tungsten electrode. Orig. art. has: 7 figures. ⁰

SUB CODE: 07// SUBM DATE: 04A: 64/ ORIG REF: 010/ OTH REF: 004

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Cord 3/3

L 30215-66 EWT(m)/ETC(f)/I/EWP(t)/ETI IJP(c) DS/JD/JG

ACC NR: AP6015011

SOURCE CODE: UR/0364/66/002/005/0529/0535

AUTHOR: Panchenko, I. D.; Penkalo, I. I.; Delimarskiy, Yu. K. 37
B

ORG: Institute of General and Inorganic Chemistry, AN UkrSSR, Kiev (Institut obshchey i neorganicheskoy khimii AN UkrSSR)

TITLE: Polarographic study of the cerium group of rare earth elements in the fused LiCl-KCl eutectic as supporting electrolyte 71

SOURCE: Elektrokhimiya, v. 2, no. 5, 1966, 529-535

TOPIC TAGS: polarographic analysis, lanthanum compound, praseodymium compound, samarium compound, europium compound, cerium compound, neodymium compound, lithium chloride, potassium chloride

ABSTRACT: In order to determine its usefulness for analytical purposes, the authors investigated the polarographic behavior of lanthanum, cerium, praseodymium, neodymium, samarium, and europium in the fused LiCl-KCl eutectic at 400°C, using a rotating platinum disc electrode. Polarograms of the reduction of the rare earth chlorides were recorded at various concentrations of the chlorides. A direct proportion was established between the wave height and the concentration of the depolarizer. The half-wave potentials were determined and differences between some of them were found to exceed

UDC: 541.135.3

Cord 1/2

L 30215-66

ACC NR: AP6015011

one volt. On the basis of the substantial difference in the half-wave potentials, polarographic spectra were obtained which may have application in the electrolytic separation of rare earth metals. The limiting diffusion currents were determined. The diffusion coefficients of the ions studied were calculated and the thickness of the diffusion layer in the fused LiCl-KCl eutectic was determined. Orig. art. has: 7 figures, 3 tables, 8 formulas. 0

SUB CODE: 07/

SUBM DATE: 23Jul65/

ORIG REF: 009/

OTH REF: 006

Card 2/2 CC

ACC NR: AP7001421

(A)

SOURCE CODE: U:0413/66/000/021/0135/0135

INVENTORS: Delimbetov, V. A.; Zimokha, V. A.; Rybakov, M. M.

ORG: none

TITLE: Converter of elastic sensor stress into analog electric output signal for differential manometers and flowmeters. Class 42, No. 188030 [announced by Scientific Research Institute of Thermal Power Instrument Manufacture (Nauchno-issledovatel'skiy institut teploenergeticheskogo priborostroyeniya)]

SOURCE: Izobreteniya, promyshlennyye obraztsy, tovarnyye znaki, no. 21, 1966, 135

TOPIC TAGS: elastic stress, electromechanic converter, manometer, flowmeter

ABSTRACT: This Author Certificate presents a converter of elastic sensor stress into an analog electric output signal for differential manometers and flowmeters. The converter contains an error indicator, an amplifier device, an electromagnetic power feedback unit, and a lever system. To simplify the design and adjustment and to increase the reliability, the error indicator and the power feedback unit are in the form of a single unit with a common magnetic circuit (see Fig. 1).

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UDC: 681.121.845

ACC NR: AP7001421

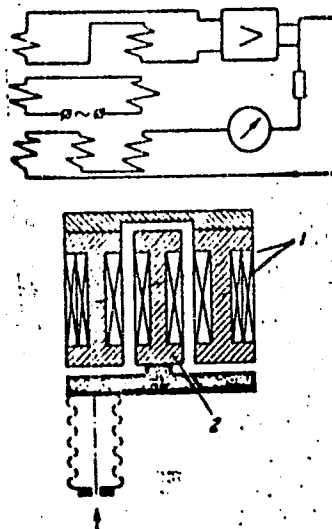


Fig. 1. 1 - error indicator; 2 - power feedback unit

Orig. art. has: 1 diagram.

SUB CODE: 09/ SUBM DATE: 20Dec65

Cont 2/2