Title (en)

Process and apparatus for the electrolytic preparation of metal, especially lead.

Title (de)

Verfahren und Vorrichtung zur elektrolytischen Herstellung von Metallen, insbesondere Blei.

Title (fr)

Procédé et appareil de préparation de métal par électrolyse, notamment de plomb.

Publication

EP 0094308 A2 19831116 (FR)

Application

EP 83400915 A 19830505

Priority

FR 8207940 A 19820506

Abstract (en)

[origin: ES8402626A1] The present invention is a process for preparing a lead or copper metal by electrolysis in a cell having a cathode and an anode which are separated by a diaphragm, which comprises the steps of preparing an electrolyte containing a metal chloride to be prepared in at least one chloride of an alkali metal or alkaline-earth metal circulating the electrolyte between the cathode and the anode parallel to the surface of the cathode, wherein the surface of the cathode is arranged in substantially a vertical direction and has a sufficiently low density of sites of nucleation so that the metallic particles which are formed from the sites keep their individuality in relation to the adjacent particles, until the particles reach a dimension of at least about 100 micrometers maintaining the flow of the electrolyte along the length of the surface of the cathode in a laminary or weakly turbulent manner so that, under the action of their weight and of the forces exercised by the current of the electrolyte, the metallic particles are detached and fall into the electrolyte and removing the metallic particles grouped at the bottom of the cell. The present invention also relates to an apparatus utilized in the process of preparing a lead or copper metal.

Abstract (fr)

L'invention concerne l'électrolyse continue de solutions de chlorure de plomb. Elles se rapporte à un procédé selon lequel les cathodes sont formées d'une matière présentant une faible densité de sites de nucléation, par exemple de titane lisse, et l'électrolyte circule le long des cathodes sous forme d'un courant laminaire. Les particules qui se forment sur les cathodes se détachent lorsqu'elles atteignent une dimension de quelques centaines de micromètres, et se rasemblent au fond de la cellule où elles sont récupérées. Application à la préparation du plomb par électrolyse.

IPC 1-7

C25C 5/02; C25C 1/18

IPC 8 full level

C25C 1/18 (2006.01); **C25C 3/00** (2006.01); **C25C 3/34** (2006.01); **C25C 5/02** (2006.01)

CPC (source: EP US)

C25C 1/18 (2013.01 - EP US); **C25C 5/02** (2013.01 - EP US)

Cited by

CN102560559A

Designated contracting state (EPC)

AT BE CH DE FR GB IT LI LU NL SE

DOCDB simple family (publication)

EP 0094308 A2 19831116; **EP 0094308 A3 19840523**; **EP 0094308 B1 19880727**; AT E36013 T1 19880815; AU 1427283 A 19831110; AU 572455 B2 19880512; BR 8302379 A 19840110; CA 1234070 A 19880315; DE 3377507 D1 19880901; DK 201183 A 19831107; DK 201183 D0 19830505; ES 522128 A0 19840201; ES 8402626 A1 19840201; FI 74306 B 19870930; FI 74306 C 19880111; FI 831530 A0 19830504; FI 831530 L 19831107; FR 2526446 A1 19831110; FR 2526446 B1 19860221; GR 78859 B 19841002; JP S5931879 A 19840221; MX 158327 A 19890125; NO 165033 B 19900903; NO 165033 C 19901212; NO 831606 L 19831107; PL 241834 A1 19840618; PT 76645 A 19830601; PT 76645 B 19860226; US 4507182 A 19850326; US 4601805 A 19860722; ZA 833237 B 19841031

DOCDB simple family (application)

EP 83400915 A 19830505; AT 83400915 T 19830505; AU 1427283 A 19830505; BR 8302379 A 19830506; CA 427508 A 19830505; DE 3377507 T 19830505; DK 201183 A 19830505; ES 522128 A 19830505; FI 831530 A 19830504; FR 8207940 A 19820506; GR 830171305 A 19830504; JP 7920483 A 19830506; MX 19719683 A 19830506; NO 831606 A 19830505; PL 24183483 A 19830506; PT 7664583 A 19830505; US 49244383 A 19830506; US 67466884 A 19841126; ZA 833237 A 19830506