

Title (en)

ELECTROLYSIS PROCESS AND CELL FOR USE IN SAME

Title (de)

ELEKTROLYSEVERFAHREN UND ZELLE ZUR VERWENDUNG DARIN

Title (fr)

PROCEDE D'ELECTROLYSE ET CELLULE UTILISEE DANS CELUI-CI

Publication

EP 1560948 A1 20050810 (EN)

Application

EP 03753140 A 20031021

Priority

- AU 0301393 W 20031021
- AU 2002952181 A 20021021

Abstract (en)

[origin: WO2004035868A1] An electrolysis process for the recovery of metal from an aqueous solution is defined. On electrolysing the solution metal is caused to deposit on a deposition surface of a cathode. The process includes the step of inducing a non-uniform current density across the deposition surface so as to form areas of high current density interspaced by areas of low current density. The difference between the areas of high current density and low current density is sufficient to cause metal deposition to be concentrated on the areas of high current density so as to promote non-uniform deposition of metal across the deposition surface. An electrolysis cell for the electro-recovery of metal from an aqueous solution is also defined. The cell includes a cathode which includes a deposition surface on which metal is deposited on electrolysing of the aqueous solution. In operation of the cell, the deposition surface has a non-uniform electrical field having areas of strong electrical field interspaced by areas of weak electrical field. The difference between the areas of strong electrical field and weak electrical field is sufficient to cause metal deposition to be concentrated on the areas of high electrical field so as to promote non-uniform deposition of metal on the surface.

IPC 1-7

C25C 1/00; **C25C 1/12**; **C25C 7/08**

IPC 8 full level

C25C 1/00 (2006.01); **C25C 1/12** (2006.01); **C25C 5/02** (2006.01); **C25C 7/02** (2006.01); **C25C 7/08** (2006.01); **C22B 15/00** (2006.01)

CPC (source: EP KR US)

C25C 1/00 (2013.01 - EP KR US); **C25C 1/12** (2013.01 - EP KR US); **C25C 1/16** (2013.01 - KR); **C25C 1/18** (2013.01 - KR); **C25C 5/02** (2013.01 - EP US); **C25C 7/02** (2013.01 - EP US); **C25C 7/08** (2013.01 - EP KR US); **C22B 15/0063** (2013.01 - EP US); **Y02P 10/20** (2015.11 - EP US)

Designated contracting state (EPC)

AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IT LI LU MC NL PT RO SE SI SK TR

DOCDB simple family (publication)

WO 2004035868 A1 20040429; AR 041685 A1 20050526; AU 2002952181 A0 20021107; BR 0314904 A 20050802; CA 2502650 A1 20040429; CN 1705773 A 20051207; EP 1560948 A1 20050810; EP 1560948 A4 20060222; JP 2006503978 A 20060202; KR 20050062632 A 20050623; MX PA05004201 A 20050920; PE 20040433 A1 20040712; RU 2005115463 A 20051027; RU 2331721 C2 20080820; SA 04250008 B1 20080520; TW 200411963 A 20040701; TW I334664 B 20101211; US 2006091017 A1 20060504; ZA 200503694 B 20060830

DOCDB simple family (application)

AU 0301393 W 20031021; AR P030103834 A 20031021; AU 2002952181 A 20021021; BR 0314904 A 20031021; CA 2502650 A 20031021; CN 200380101798 A 20031021; EP 03753140 A 20031021; JP 2004543843 A 20031021; KR 20057006893 A 20050421; MX PA05004201 A 20031021; PE 2003001066 A 20031021; RU 2005115463 A 20031021; SA 04250008 A 20040224; TW 92129143 A 20031021; US 53186205 A 20050929; ZA 200503694 A 20050509