Title (en)

ALUMINIUM ELECTROWINNING WITH ENHANCED ELECTROLYTE CIRCULATION

Title (de)

ELEKTROLYTISCHE GEWINNUNG VON ALUMINIUM MIT VERBESSERTER ELEKTROLYTZIRKULATION

Title (fr)

EXTRACTION ELECTROLYTIQUE D'ALUMINIUM AVEC CIRCULATION D'ELECTROLYTE AMELIOREE

Publication

**EP 1807552 A2 20070718 (EN)**

Application

**EP 05800288 A 20051024**

Priority

- IB 2005053466 W 20051024
- IB 2004003642 W 20041105

Abstract (en)

[origin: WO2006048790A2] A method of operating an aluminium electrowinning cell that has one or more metal-based anodes (5) . The anodes (5) comprise metal-based foraminate anode bodies (10) which are suspended by metal-based anode stems (20) in a molten electrolyte (50) and which are spaced above a cathode (30). The method comprises electrolysing alumina dissolved in the molten electrolyte (50) by passing current via the anode stems (20) and the anode bodies (10) through the electrolyte (50) to the facing cathode (30) whereby aluminium (60) is cathodically produced and gas is anodically evolved. The gas promotes an electrolyte circulation (51) through the foraminate anode bodies (10) which facilitates dissolution of alumina. Each anode (5) has a foraminate anode body (10) suspended by least three anode stems (20) that are spaced apart from one another and distributed around a foraminate stemless central part of the anode body (10). These stems extend from the anode body (10) to above the molten electrolyte (50), the electrolyte (50) flowing up through and above said foraminate central part of the anode body (10) to enhance dissolution of alumina fed thereabove.

IPC 8 full level

**C25C 3/12** (2006.01)

CPC (source: EP)

**C25C 3/12** (2013.01)

Citation (search report)

See references of WO 2006048790A2

Designated contracting state (EPC)

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

Designated extension state (EPC)

AL BA HR MK YU

DOCDB simple family (publication)

**WO 2006048790 A2 20060511**; **WO 2006048790 A3 20070208**; AU 2005300270 A1 20060511; CA 2584064 A1 20060511; EP 1807552 A2 20070718; RU 2007120813 A 20081210

DOCDB simple family (application)

**IB 2005053466 W 20051024**; AU 2005300270 A 20051024; CA 2584064 A 20051024; EP 05800288 A 20051024; RU 2007120813 A 20051024