

Title (en)

CATHODE ASSEMBLY FOR ELECTROLYTIC CELL SUITABLE FOR THE HALL-HÉROULT PROCESS

Title (de)

KATHODENANORDNUNG FÜR ELEKTROLYSEZELLE FÜR HALL-HÉROULT-PROZESS

Title (fr)

ENSEMBLE CATHODE POUR CELLULE D'ÉLECTROLYSE APPROPRIÉ POUR LE PROCÉDÉ HALL-HÉROULT

Publication

**EP 3347509 A1 20180718 (EN)**

Application

**EP 16843770 A 20160907**

Priority

- GB 201515963 A 20150909
- IB 2016055324 W 20160907

Abstract (en)

[origin: GB2542150A] A cathode assembly for electrolytic cell suitable for the Hall-Héroult process comprises a cathode body 1 made of a carbonaceous material, and at least one cathode bar 3 made of a first conductive material. The cathode bar 3 is fitted in a groove provided in said cathode body. At least one insert 5 made of a second conductive material, having a higher electrical conductivity than that of said first conductive material, is fitted in a slot or bore provided in said cathode bar 3. The assembly is characterised by, said insert 5 having at least one first so-called electrically conductive region and at least one second so-called electrically non-conductive region L5C, where the electrically conductive contact peripheral length of said insert with said cathode body and/or said cathode bar is superior in the first region than in the second region. The non-conductive region L5C can be formed by a local cross-sectional restriction of the insert 5 or by a local widening of the cross section of the slot or bore of the cathode bar 3. Also claimed is a process for making the cathode assembly; an electrolytic cell for the production of aluminium including the cathode assembly and a process for making aluminium including the cathode assembly.

IPC 8 full level

**C25C 3/06** (2006.01); **C25C 3/10** (2006.01); **C25C 3/16** (2006.01)

CPC (source: EP GB)

**C25C 3/06** (2013.01 - GB); **C25C 3/08** (2013.01 - EP GB); **C25C 3/16** (2013.01 - EP GB)

Designated contracting state (EPC)

AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

Designated extension state (EPC)

BA ME

DOCDB simple family (publication)

**GB 201515963 D0 20151021**; **GB 2542150 A 20170315**; EP 3347509 A1 20180718; EP 3347509 A4 20190501; EP 3347509 B1 20200805; WO 2017042691 A1 20170316

DOCDB simple family (application)

**GB 201515963 A 20150909**; EP 16843770 A 20160907; IB 2016055324 W 20160907