

Title (en)

CATHODE ELEMENT FOR AN ELECTROLYSIS CELL FOR THE PRODUCTION OF ALUMINIUM

Title (de)

KATHODEELEMENT FÜR ELEKTROLYSEZELLEN ZUR HERSTELLUNG VON ALUMINIUM

Title (fr)

ELEMENT CATHODIQUE POUR L'EQUIPEMENT D'UNE CELLULE D'ELECTROLYSE DESTINEE A LA PRODUCTION D'ALUMINIUM

Publication

EP 1733075 B1 20190313 (FR)

Application

EP 05744310 A 20050330

Priority

- FR 2005000757 W 20050330
- FR 0403497 A 20040402

Abstract (en)

[origin: US2005218006A1] This invention relates to a cathode element for use in a pot of an electrolytic cell intended for production of aluminum. The cathode element comprises a cathode block and a steel connection bar. The connection bar includes at least one metal insert, whose electrical conductivity is greater than the electrical conductivity of the said steel. The presence of an insert according to the invention can simultaneously result in a very large drop in the global cathode voltage and a very strong reduction in the current density at the head of the block.

IPC 8 full level

C25C 3/08 (2006.01); **C25C 3/16** (2006.01)

CPC (source: EP US)

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

Citation (examination)

- US 5976333 A 19991102 - PATE RAY H [US]
- DE 2631673 A1 19770120 - SAVOIE ELECTRODES REFRACT
- DE 812211 C 19510827 - ALAIS & FROGES & CAMARQUE CIE

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 MC NL PL PT RO SE SI SK TR

DOCDB simple family (publication)

FR 2868435 A1 20051007; FR 2868435 B1 20060526; AR 051433 A1 20070117; AU 2005232010 A1 20051020; AU 2005232010 B2 20091119; BR PI0509509 A 20070911; BR PI0509509 B1 20151027; CA 2559372 A1 20051020; CA 2559372 C 20120904; CN 1938454 A 20070328; CN 1938454 B 20111228; EG 24808 A 20100919; EP 1733075 A2 20061220; EP 1733075 B1 20190313; NO 20064798 L 20061221; NO 343609 B1 20190415; PL 1733075 T3 20190830; RU 2006138619 A 20080510; RU 2364663 C2 20090820; SI 1733075 T1 20190628; TR 201906708 T4 20190521; US 2005218006 A1 20051006; US 7618519 B2 20091117; WO 2005098093 A2 20051020; WO 2005098093 A3 20060720; ZA 200608183 B 20080730

DOCDB simple family (application)

FR 0403497 A 20040402; AR P050101123 A 20050322; AU 2005232010 A 20050330; BR PI0509509 A 20050330; CA 2559372 A 20050330; CN 200580009969 A 20050330; EG 2006100947 A 20061012; EP 05744310 A 20050330; FR 2005000757 W 20050330; NO 20064798 A 20061023; PL 05744310 T 20050330; RU 2006138619 A 20050330; SI 200532251 T 20050330; TR 201906708 T 20050330; US 9548705 A 20050401; ZA 200608183 A 20050330