

Title (en)

SURFACE MODIFIED STAINLESS STEEL CATHODE FOR ELECTROLYSER

Title (de)

OBERFLÄCHENMODIFIZIERTE EDELSTAHLKATHODE FÜR EINEN ELEKTROLYSEUR

Title (fr)

CATHODE EN ACIER INOXYDABLE MODIFIÉE EN SURFACE DESTINÉE À UN ÉLECTROLYSEUR

Publication

EP 2841625 A4 20150805 (EN)

Application

EP 13781847 A 20130415

Priority

- US 201261637244 P 20120423
- CA 2013050289 W 20130415

Abstract (en)

[origin: WO2013159219A1] Sodium chlorate is produced industrially via electrolysis of brine and is thus an energy intensive process. An improved cathode for this and other industrial processes is a low nickel content stainless steel whose surface has been suitably modified. With an appropriate amount of surface roughening, the cathode provides for improved overvoltages during electrolysis while still maintaining corrosion resistance.

IPC 8 full level

C25B 11/04 (2006.01); **B24C 1/06** (2006.01); **B24C 11/00** (2006.01); **C25B 1/26** (2006.01); **C25B 11/02** (2006.01)

CPC (source: EP KR US)

B24C 1/06 (2013.01 - EP KR US); **B24C 11/00** (2013.01 - EP US); **C25B 1/265** (2013.01 - EP KR US); **C25B 11/02** (2013.01 - EP US); **C25B 11/04** (2013.01 - EP US); **C25B 11/046** (2021.01 - KR); **C25B 11/051** (2021.01 - KR); **C25B 11/057** (2021.01 - EP US)

Citation (search report)

- [XY] JP 2009200008 A 20090903 - NISSHIN STEEL CO LTD
- [XI] US 6379476 B1 20020430 - TARUTANI YOSHIO [JP], et al
- [XAI] US 8133366 B2 20120313 - WEBB WAYNE KEITH [AU]
- [Y] WO 2011003173 A1 20110113 - HYDRO QUEBEC [CA], et al
- [A] US 2003116431 A1 20030626 - JOHANSSON INGEMAR BJORN ARNE [SE], et al
- [AD] US 2010159152 A1 20100624 - SCHULZ ROBERT [CA], et al
- See references of WO 2013159219A1

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

DOCDB simple family (publication)

WO 2013159219 A1 20131031; AU 2013252464 A1 20141016; AU 2013252464 B2 20170928; BR 112014026603 A2 20170627; CA 2870097 A1 20131031; CN 104271809 A 20150107; CN 104271809 B 20180410; EA 029024 B1 20180131; EA 201491931 A1 20150130; EP 2841625 A1 20150304; EP 2841625 A4 20150805; IN 9171DEN2014 A 20150710; JP 2015522708 A 20150806; JP 6189932 B2 20170830; KR 20150013130 A 20150204; MY 168646 A 20181127; NZ 700607 A 20160826; PH 12014502355 A1 20150112; US 2015090586 A1 20150402; US 2018105943 A1 20180419

DOCDB simple family (application)

CA 2013050289 W 20130415; AU 2013252464 A 20130415; BR 112014026603 A 20130415; CA 2870097 A 20130415; CN 201380021398 A 20130415; EA 201491931 A 20130415; EP 13781847 A 20130415; IN 9171DEN2014 A 20141101; JP 2015506055 A 20130415; KR 20147029359 A 20130415; MY PI2014703042 A 20130415; NZ 70060713 A 20130415; PH 12014502355 A 20141021; US 201314396305 A 20130415; US 201715842571 A 20171214