

Title (en)

ELECTROCHEMICAL HYDROXIDE SYSTEMS AND METHODS USING METAL OXIDATION

Title (de)

ELEKTROCHEMISCHE HYDROXIDSYSTEME UND VERFAHREN MITTELS METALLOXIDIERUNG

Title (fr)

SYSTÈMES ET PROCÉDÉS ÉLECTROCHIMIQUES À HYDROXYDE UTILISANT L'OXYDATION DE MÉTAUX

Publication

**EP 2831313 A4 20150610 (EN)**

Application

**EP 13769321 A 20130313**

Priority

- US 201261617390 P 20120329
- US 201213474598 A 20120517
- US 2013031064 W 20130313

Abstract (en)

[origin: WO2013148216A1] There are provided methods and systems for an electrochemical cell including an anode and a cathode where the anode is contacted with a metal ion that converts the metal ion from a lower oxidation state to a higher oxidation state. The metal ion in the higher oxidation state is reacted with hydrogen gas, an unsaturated hydrocarbon, and/or a saturated hydrocarbon to form products.

IPC 8 full level

**H01M 2/14** (2006.01)

CPC (source: CN EP)

**C25B 1/00** (2013.01 - CN); **C25B 1/02** (2013.01 - CN); **C25B 3/27** (2021.01 - CN); **C25B 9/00** (2013.01 - CN EP); **C25B 11/02** (2013.01 - EP); **C25B 15/08** (2013.01 - CN EP)

Citation (search report)

- [YP] WO 2012158969 A1 20121122 - CALERA CORP [US], et al
- [Y] US 5296107 A 19940322 - HARRISON STEPHEN [CA]
- See references of WO 2013148216A1

Cited by

US2023109269A1; US12007322B2; US10556848B2; US10844496B2

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)

**WO 2013148216 A1 20131003**; CN 104271810 A 20150107; CN 104271810 B 20170503; CN 107254689 A 20171017; EP 2831313 A1 20150204; EP 2831313 A4 20150610; EP 2831313 B1 20170503; EP 3219829 A1 20170920; JP 2015522706 A 20150806; JP 2017075398 A 20170420; JP 6039054 B2 20161207

DOCDB simple family (application)

**US 2013031064 W 20130313**; CN 201380024643 A 20130313; CN 201710352177 A 20130313; EP 13769321 A 20130313; EP 17150726 A 20130313; JP 2015503281 A 20130313; JP 2016196127 A 20161004