

Title (en)

LAVES PHASE-RELATED BCC METAL HYDRIDE ALLOYS AND ACTIVATION THEREOF FOR ELECTROCHEMICAL APPLICATIONS

Title (de)

LAVES-PHASEN-ASSOZIIERTE BCC-METALLHYDRIDLEGIERUNGEN SOWIE AKTIVIERUNG DERSELBEN FÜR ELEKTROCHEMISCHE ANWENDUNGEN

Title (fr)

ALLIAGES D'HYDRURES MÉTALLIQUES BCC DU TYPE PHASE DE LAVES ET LEUR ACTIVATION POUR APPLICATIONS ÉLECTROCHIMIQUES

Publication

EP 3172785 A1 20170531 (EN)

Application

EP 15825302 A 20150717

Priority

- US 201414340959 A 20140725
- US 201414340913 A 20140725
- US 2015040892 W 20150717

Abstract (en)

[origin: WO2016014356A1] Laves phase-related BCC metal hydride alloys historically have limited electrochemical capabilities. Provided are a new examples of these alloys useful as electrode active materials. Also provided are processes of activating such alloys. Alloys include a composition defined by Formula I: $Ti_wV_xCr_yM_z$ (I) where $w+x+y+z = 1$, $0.1 < w < 0.6$, $0.1 < x < 0.6$, $0.01 < y < 0.6$ and M is selected from the group consisting of B, Al, Si, Sn and one or more transition metals that achieve discharge capacities of 350 mAh/g or greater for cycles of 10 or more.

IPC 8 full level

H01M 4/38 (2006.01); **C22C 14/00** (2006.01); **C22C 27/02** (2006.01); **H01M 10/24** (2006.01)

CPC (source: EP KR)

C22C 14/00 (2013.01 - EP KR); **C22C 27/025** (2013.01 - EP KR); **C22C 30/00** (2013.01 - EP KR); **H01M 4/383** (2013.01 - EP KR); **H01M 10/345** (2013.01 - KR); **C22C 19/05** (2013.01 - EP); **H01M 10/345** (2013.01 - EP); **Y02E 60/10** (2013.01 - EP); **Y02E 60/32** (2013.01 - KR)

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)

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DOCDB simple family (application)

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