

Title (en)

ELECTROCHEMICAL ENERGY STORAGE DEVICE HAVING FLAT CELLS AND SPACING ELEMENTS

Title (de)

ELEKTROCHEMISCHE ENERGIESPEICHERVORRICHTUNG MIT FLACHZELLEN UND ABSTANDELEMENTEN

Title (fr)

DISPOSITIF ACCUMULATEUR D'ÉNERGIE ÉLECTROCHIMIQUE À GÉOMÉTRIE PLANE ET ÉLÉMENTS D'ÉCARTEMENT

Publication

EP 2617085 A1 20130724 (DE)

Application

EP 11758392 A 20110907

Priority

- DE 102010045700 A 20100916
- EP 2011004509 W 20110907

Abstract (en)

[origin: WO2012034667A1] The invention relates to an electrochemical energy storage device comprising a plurality of flat storage cells (2), which each have a first current conductor (18a) and a second current conductor (18b) on a narrow side of the storage cell (2); a plurality of spacing elements (4), which are each arranged between two storage cells (2) in order to maintain a predetermined distance between the storage cells (2); and a clamping apparatus (10) for clamping the storage cells (2) and the spacing elements (4) together to form a stack. The spacing elements (4) each have a first pressure surface (22a) and a second pressure surface (22b) on the two sides of the spacing element that face a storage cell (2). The one current conductor (18a, 18b) of the storage cells (2) is clamped by the clamping apparatus (10) between the first pressure surfaces (22a) of two spacing elements (4) by means of friction locking and the other current conductor (18b, 18a) of the storage cells (2) is clamped by the clamping apparatus (10) between the second pressure surfaces (22b) of two spacing elements (4) by means of friction locking. In the region of the first pressure surfaces (22a) and/or in the region of the second pressure surfaces (22b) of a spacing element (4), a contact element (26) is provided in order to establish an electrically conducting connection between the first or second pressure surfaces (22a, 22b) of a spacing element (4), and finally the spacing elements (4) and/or the contact elements (26) are designed in such a way that the compressions between the first pressure surfaces (22a) and between the second pressure surfaces (22b) are equal.

IPC 8 full level

H01M 10/05 (2010.01); **H01M 10/38** (2006.01); **H01M 50/211** (2021.01); **H01M 50/264** (2021.01); **H01M 50/291** (2021.01); **H01M 50/503** (2021.01)

CPC (source: EP KR US)

H01G 9/004 (2013.01 - US); **H01M 10/0525** (2013.01 - KR); **H01M 10/38** (2013.01 - KR); **H01M 50/211** (2021.01 - EP KR US);
H01M 50/264 (2021.01 - EP KR US); **H01M 50/291** (2021.01 - EP KR US); **H01M 50/50** (2021.01 - KR); **H01M 50/503** (2021.01 - EP KR US);
H01M 10/0525 (2013.01 - EP US); **Y02E 60/10** (2013.01 - EP KR); **Y02P 70/50** (2015.11 - EP KR)

Citation (search report)

See references of WO 2012034667A1

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)

DE 102010045700 A1 20120322; CN 103109395 A 20130515; EP 2617085 A1 20130724; JP 2013538001 A 20131007;
KR 20140004635 A 20140113; US 2013280590 A1 20131024; WO 2012034667 A1 20120322

DOCDB simple family (application)

DE 102010045700 A 20100916; CN 201180044770 A 20110907; EP 11758392 A 20110907; EP 2011004509 W 20110907;
JP 2013528548 A 20110907; KR 20137009605 A 20110907; US 201113823933 A 20110907