Title (en)

ALTERNATIVE LOW COST ELECTRODES FOR HYBRID FLOW BATTERIES

Title (de)

ALTERNATIVE KOSTENGÜNSTIGE ELEKTRODEN FÜR HYBRIDE DURCHFLUSSBATTERIEN

Title (fr)

ÉLECTRODES À FAIBLE COÛT ALTERNATIVES POUR BATTERIES À FLUX HYBRIDES

Publication

EP 3602663 A4 20210113 (EN)

Application

EP 18805497 A 20180515

Priority

- US 201715601560 A 20170522
- US 2018032820 W 20180515

Abstract (en)

[origin: WO2018217502A1] A redox flow battery may include: a membrane interposed between a first electrode positioned at a first side of the membrane and a second electrode positioned at a second side of the membrane opposite to the first side; a first flow field plate comprising a plurality of positive flow field ribs, each of the plurality of positive flow field ribs contacting the first electrode at first supporting regions on the first side; and the second electrode, including an electrode spacer positioned between the membrane and a second flow field plate, the electrode spacer comprising a plurality of main ribs, each of the plurality of main ribs contacting the second flow field plate at second supporting regions on the second side, each of the second supporting regions aligned opposite to one of the plurality of first supporting regions. As such, a current density distribution at a plating surface may be reduced.

IPC 8 full level

H01M 8/0258 (2016.01); **H01M 4/86** (2006.01); **H01M 4/88** (2006.01); **H01M 4/96** (2006.01); **H01M 8/0239** (2016.01); **H01M 8/18** (2006.01)

CPC (source: EP)

H01M 4/8663 (2013.01); **H01M 4/8803** (2013.01); **H01M 4/96** (2013.01); **H01M 8/0239** (2013.01); **H01M 8/0258** (2013.01); **H01M 8/184** (2013.01); Y02E 60/50 (2013.01)

Citation (search report)

- [Y] US 2016190604 A1 20160630 - EVANS CRAIG E [US], et al
- [Y] US 2014060666 A1 20140306 - EVANS CRAIG [US], et al
- [Y] ZENG Y K ET AL: "A hydrogen-ferric ion rebalance cell operating at low hydrogen concentrations for capacity restoration of iron-chromium redox flow batteries", JOURNAL OF POWER SOURCES, ELSEVIER SA, CH, vol. 352, 30 March 2017 (2017-03-30), pages 77 - 82, XP029976808, ISSN: 0378-7753, DOI: 10.1016/J.JPOWSOUR.2017.03.125
- [Y] ZENG Y K ET AL: "Performance enhancement of iron-chromium redox flow batteries by employing interdigitated flow fields", JOURNAL OF POWER SOURCES, ELSEVIER SA, CH, vol. 327, 25 July 2016 (2016-07-25), pages 258 - 264, XP029694680, ISSN: 0378-7753, DOI: 10.1016/J.JPOWSOUR.2016.07.066
- See references of WO 2018217502A1

Designated contracting state (EPC)

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DOCDB simple family (publication)

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DOCDB simple family (application)

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