

Title (en)  
ELECTROCHEMICAL CELL AND METHOD OF USING SAME

Title (de)  
ELEKTROCHEMISCHE ZELLE UND VERFAHREN ZUR VERWENDUNG DAVON

Title (fr)  
CELLULE ÉLECTROCHIMIQUE ET SON PROCÉDÉ D'UTILISATION

Publication  
**EP 3529396 A4 20201014 (EN)**

Application  
**EP 18787405 A 20180419**

Priority

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Abstract (en)  
[origin: EP3757255A1] A novel electrochemical cell is disclosed in multiple embodiments. The instant invention relates to an electrochemical cell design. In one embodiment, the cell design can electrolyze water into pressurized hydrogen using low-cost materials. In another embodiment, the cell design can convert hydrogen and oxygen into electricity. In another embodiment, the cell design can electrolyze water into hydrogen and oxygen for storage, then later convert the stored hydrogen and oxygen back into electricity and water.

IPC 8 full level  
**C25B 13/02** (2006.01); **C25B 9/19** (2021.01); **C25B 13/08** (2006.01); **H01M 4/86** (2006.01); **H01M 8/0289** (2016.01); **H01M 8/08** (2016.01); **H01M 8/083** (2016.01); **H01M 8/18** (2006.01); **H01M 8/24** (2016.01); **H01M 8/2455** (2016.01); **H01M 8/2483** (2016.01)

CPC (source: EP US)  
**C25B 1/04** (2013.01 - EP US); **C25B 9/00** (2013.01 - EP); **C25B 9/05** (2021.01 - EP); **C25B 9/19** (2021.01 - EP US); **C25B 9/73** (2021.01 - EP US); **C25B 13/02** (2013.01 - EP); **C25B 13/08** (2013.01 - EP); **C25B 15/08** (2013.01 - EP); **H01M 4/8668** (2013.01 - EP); **H01M 8/0289** (2013.01 - EP); **H01M 8/083** (2013.01 - EP); **H01M 8/186** (2013.01 - EP); **H01M 8/2455** (2013.01 - EP); **H01M 8/2459** (2016.02 - EP); **H01M 8/2483** (2016.02 - EP); **H01M 2300/0014** (2013.01 - EP); **H01M 2300/0082** (2013.01 - EP); **Y02E 60/36** (2013.01 - EP); **Y02E 60/50** (2013.01 - EP)

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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

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**EP 3757255 A1 20201230**; CN 110168142 A 20190823; EP 3529396 A1 20190828; EP 3529396 A4 20201014; EP 3757254 A1 20201230

DOCDB simple family (application)  
**EP 20190888 A 20180419**; CN 201880005967 A 20180419; EP 18787405 A 20180419; EP 20190887 A 20180419