

Title (en)  
STRUCTURE-INTEGRATED ELECTROCHEMICAL CELL AND STRUCTURE-INTEGRATED STACK CONSTRUCTED THEREFROM

Title (de)  
STRUKTURINTEGRIERTE ELEKTROCHEMISCHE ZELLE UND DARAUS AUFGEBAUTER STRUKTURINTEGRIERTER STACK

Title (fr)  
CELLULE ÉLECTROCHIMIQUE INTÉGRÉE DANS LA STRUCTURE ET EMPILEMENT INTÉGRÉ DANS LA STRUCTURE CONSTRUIT À PARTIR DE CELLE-CI

Publication  
**EP 4360148 A1 20240501 (DE)**

Application  
**EP 22747577 A 20220622**

Priority  
• DE 102021116066 A 20210622  
• DE 2022100460 W 20220622

Abstract (en)  
[origin: WO2022268264A1] The application relates to an electrochemical cell, more particularly a redox flow battery, and to a stack having a cell assembly composed of two or more electrochemical cells of this type. The cell comprises at least one cell frame and at least one electrode, wherein the cell frame peripherally surrounds a cell interior, and wherein the cell frame has at least one feed channel for feeding a fluid into the cell interior and at least one removal channel for removing the fluid from the cell interior, and optionally at least one semipermeable membrane and optionally at least one flow field plate. The cell frame, the electrode, the optional semipermeable membrane and the optional flow field plate are substantially interlockingly connected to each other, more particularly substantially interlockingly connected to each other in the region of the active cell area. A cell of this type is particularly suitable for applications in aviation, shipping and space travel.

IPC 8 full level  
**H01M 4/86** (2006.01); **H01M 4/90** (2006.01); **H01M 4/96** (2006.01); **H01M 8/00** (2016.01); **H01M 8/18** (2006.01); **H01M 8/24** (2016.01); **H01M 8/2455** (2016.01)

CPC (source: EP KR)  
**H01M 4/8605** (2013.01 - EP KR); **H01M 4/9041** (2013.01 - EP KR); **H01M 4/96** (2013.01 - KR); **H01M 8/002** (2013.01 - EP KR); **H01M 8/0202** (2013.01 - KR); **H01M 8/188** (2013.01 - EP KR); **H01M 8/2455** (2013.01 - EP KR); **H01M 8/2459** (2016.02 - EP KR); **H01M 8/2465** (2013.01 - KR); **H01M 4/96** (2013.01 - EP); **H01M 2250/20** (2013.01 - EP KR); **Y02E 60/50** (2013.01 - EP)

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

Designated validation state (EPC)  
KH MA MD TN

DOCDB simple family (publication)  
**WO 2022268264 A1 20221229**; CN 117546318 A 20240209; DE 112022003169 A5 20240718; EP 4360148 A1 20240501; KR 20240024817 A 20240226

DOCDB simple family (application)  
**DE 2022100460 W 20220622**; CN 202280044330 A 20220622; DE 112022003169 T 20220622; EP 22747577 A 20220622; KR 20237042956 A 20220622