

Title (en)

ELECTROCHEMICAL BATTERY DEVICE WITH IMPROVED LIFETIME, COMPRISING IMPROVED SEALING AND ELECTRICAL CONDUCTION MEANS, AND MANUFACTURING METHOD THEREOF

Title (de)

ELEKTROCHEMISCHE BATTERIEVORRICHTUNG MIT VERBESSERTER LEBENSDAUER, DIE EINE VERBESSERTE ABDICHTUNG UND ELEKTRISCHE LEITUNG AUFWEIST, UND HERSTELLUNGSVERFAHREN DAVON

Title (fr)

DISPOSITIF ELECTROCHIMIQUE DE TYPE BATTERIE POSSEDEANT UNE DUREE DE VIE AMELIOREE, COMPRENANT DES MOYENS D'ETANCHEITE ET DE CONDUCTION ELECTRIQUE PERFECTIONNES, ET SON PROCEDE DE FABRICATION

Publication

**EP 4082053 A1 20221102 (FR)**

Application

**EP 20829677 A 20201223**

Priority

- FR 1915548 A 20191224
- IB 2020062374 W 20201223

Abstract (en)

[origin: CA3162508A1] Said battery comprises a stack (I) alternating between at least one anode (20) and at least one cathode (50), an encapsulating system which is referred to as the primary encapsulating system (1020) and covers four of the six faces of the stack (I), at least one anode contact member (1040) capable of ensuring electrical contact between the stack and an external conductive element, and at least one cathode contact member (1050) capable of ensuring electrical contact between the stack and an external conductive element. According to the invention, the battery also comprises an encapsulating system referred to as the additional encapsulating system (1030), said additional encapsulating system comprising two front regions (1031, 1032), each of which covers a respective front region (1021, 1022) of the primary encapsulating system, and two side regions (1033, 1035), each of which covers a respective side region (1023, 1025), which is free of any contact member, of the primary encapsulating system, each of the two front regions (1031, 1032) of the additional encapsulating system (1030) also covering the front ends (1041, 1042, 1051, 1052) of the anode contact members and the cathode contact members, respectively, and each of the front regions (1031, 1032) of the additional encapsulating system forming a continuous surface with the side regions (1033, 1035) of the additional encapsulating system.

IPC 8 full level

**H01M 4/04** (2006.01); **H01M 10/04** (2006.01); **H01M 10/052** (2010.01); **H01M 10/0585** (2010.01); **H01M 50/103** (2021.01);  
**H01M 50/105** (2021.01); **H01M 50/116** (2021.01); **H01M 50/117** (2021.01); **H01M 50/124** (2021.01); **H01M 50/126** (2021.01);  
**H01M 50/141** (2021.01)

CPC (source: EP IL KR US)

**H01M 4/043** (2013.01 - EP IL KR); **H01M 4/0471** (2013.01 - EP IL KR); **H01M 10/0436** (2013.01 - EP IL KR); **H01M 10/052** (2013.01 - EP IL KR);  
**H01M 10/0585** (2013.01 - EP IL KR); **H01M 50/103** (2021.01 - EP IL KR US); **H01M 50/105** (2021.01 - EP IL KR);  
**H01M 50/116** (2021.01 - EP IL KR); **H01M 50/117** (2021.01 - EP IL KR US); **H01M 50/121** (2021.01 - US); **H01M 50/122** (2021.01 - US);  
**H01M 50/124** (2021.01 - EP IL KR); **H01M 50/126** (2021.01 - EP IL KR); **H01M 50/141** (2021.01 - EP IL KR US); **Y02E 60/10** (2013.01 - EP);  
**Y02P 70/50** (2015.11 - EP)

Citation (search report)

See references of WO 2021130687A1

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)

**FR 3105603 A1 20210625; FR 3105603 B1 20211126**; CA 3162508 A1 20210701; CN 115152046 A 20221004; EP 4082053 A1 20221102;  
IL 293763 A 20220801; JP 2023508068 A 20230228; KR 20220121255 A 20220831; TW 202135368 A 20210916; US 2023027695 A1 20230126;  
WO 2021130687 A1 20210701

DOCDB simple family (application)

**FR 1915548 A 20191224**; CA 3162508 A 20201223; CN 202080097512 A 20201223; EP 20829677 A 20201223; IB 2020062374 W 20201223;  
IL 29376322 A 20220609; JP 2022538935 A 20201223; KR 20227025667 A 20201223; TW 109145871 A 20201224;  
US 202017788461 A 20201223