

Title (en)  
SECONDARY ELECTROCHEMICAL LITHIUM-ION CELL

Title (de)  
SEKUNDÄRE ELEKTROCHEMISCHE LITHIUM-IONEN-ZELLE

Title (fr)  
PILE ÉLECTROCHIMIQUE AU LITHIUM-ION SECONDAIRE

Publication  
**EP 4143903 A1 20230308 (DE)**

Application  
**EP 21721545 A 20210428**

Priority  
• EP 20172155 A 20200429  
• EP 2021061152 W 20210428

Abstract (en)  
[origin: WO2021219732A1] A secondary electrochemical lithium-ion cell comprises at least one composite electrode as negative electrode (10), wherein the composite electrode comprises at least one anode current collector (12) and at least one electrochemically active component which allows lithium ions to move in and out. The lithium-ion cell further comprises at least one composite electrode as positive electrode (20), wherein the composite electrode comprises at least one cathode current collector (22) and at least one electrochemically active component which allows lithium ions to move in and out. Furthermore, the negative electrode (10) and/or the positive electrode (20) have at least one region (11), in which the anode current collector (12) and/or the cathode current collector (22) is at least partially free from the electrochemically active component, and wherein this region (11) is formed as a lithium reserve.

IPC 8 full level  
**H01M 4/13** (2010.01); **H01M 10/052** (2010.01); **H01M 10/0525** (2010.01); **H01M 10/058** (2010.01); **H01M 10/42** (2006.01); **H01M 10/44** (2006.01); **H01M 10/48** (2006.01); **H01M 50/463** (2021.01)

CPC (source: EP KR US)  
**H01M 4/0404** (2013.01 - US); **H01M 4/0445** (2013.01 - US); **H01M 4/13** (2013.01 - EP KR); **H01M 4/134** (2013.01 - US); **H01M 4/382** (2013.01 - US); **H01M 10/052** (2013.01 - EP KR); **H01M 10/0525** (2013.01 - EP KR US); **H01M 10/058** (2013.01 - EP KR); **H01M 10/0587** (2013.01 - US); **H01M 10/4235** (2013.01 - KR); **H01M 10/425** (2013.01 - EP); **H01M 10/44** (2013.01 - EP); **H01M 10/48** (2013.01 - EP); **H01M 50/107** (2021.01 - US); **H01M 50/109** (2021.01 - US); **H01M 50/463** (2021.01 - EP); **H01M 50/538** (2021.01 - US); **H01M 2004/021** (2013.01 - EP); **H01M 2004/027** (2013.01 - US); **Y02E 60/10** (2013.01 - EP); **Y02P 70/50** (2015.11 - EP)

Citation (search report)  
See references of WO 2021219732A1

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)  
**EP 3905388 A1 20211103**; CN 115428187 A 20221202; EP 4143903 A1 20230308; JP 2023523740 A 20230607; KR 20220163479 A 20221209; US 2023207789 A1 20230629; WO 2021219732 A1 20211104

DOCDB simple family (application)  
**EP 20172155 A 20200429**; CN 202180031825 A 20210428; EP 2021061152 W 20210428; EP 21721545 A 20210428; JP 2022564736 A 20210428; KR 20227038924 A 20210428; US 202117919754 A 20210428