

Title (en)
SOLID LITHIUM CELL, BATTERY COMPRISING SAID CELLS AND MANUFACTURING PROCESS FOR MANUFACTURING SAID BATTERY

Title (de)
LITHIUM-FESTZELLE, BATTERIE MIT DIESEN ZELLEN UND HERSTELLUNGSVERFAHREN ZUR HERSTELLUNG DIESER BATTERIE

Title (fr)
CELLULE AU LITHIUM SOLIDE, BATTERIE COMPRENANT LESDITES CELLULES ET PROCÉDÉ DE FABRICATION POUR FABRIQUER LADITE BATTERIE

Publication
EP 4179582 A1 20230517 (FR)

Application
EP 21737475 A 20210706

Priority
• IN 202041029482 A 20200710
• FR 2008647 A 20200824
• EP 2021068652 W 20210706

Abstract (en)
[origin: WO2022008506A1] Disclosed is a solid lithium cell formed by stacking an etched copper substrate (15), a layer of graphite (14), an electrolyte (12) and a layer of nickel, manganese and cobalt oxides (11), the electrolyte (12) being in contact with the graphite layer (14) and the layer of nickel, manganese and cobalt oxides (11), the copper substrate (15) forming the anode of the cell, the layer of nickel, manganese and cobalt oxides (11) forming the cathode of the cell, the electrolyte (12) being a solid lithium-based electrolyte, and the graphite layer (15) having a first solid electrolyte interface (16) produced during a pre-lithiation with a liquid lithium-based electrolyte and a second solid electrolyte interface (17) produced during a pre-lithiation with the solid lithium-based electrolyte.

IPC 8 full level
H01M 4/04 (2006.01); **H01M 4/02** (2006.01); **H01M 4/525** (2010.01); **H01M 4/587** (2010.01); **H01M 4/66** (2006.01); **H01M 4/70** (2006.01); **H01M 10/0565** (2010.01); **H01M 10/0585** (2010.01); **H01M 50/204** (2021.01)

CPC (source: EP US)
H01M 4/0404 (2013.01 - EP); **H01M 4/0461** (2013.01 - EP); **H01M 4/131** (2013.01 - US); **H01M 4/505** (2013.01 - US); **H01M 4/525** (2013.01 - EP US); **H01M 4/587** (2013.01 - EP US); **H01M 4/661** (2013.01 - EP US); **H01M 4/70** (2013.01 - EP); **H01M 10/0565** (2013.01 - EP US); **H01M 10/058** (2013.01 - US); **H01M 10/0585** (2013.01 - EP); **H01M 50/204** (2021.01 - EP); **H01M 50/512** (2021.01 - US); **H01M 2004/027** (2013.01 - EP); **H01M 2300/0082** (2013.01 - US); **Y02E 60/10** (2013.01 - EP); **Y02P 70/50** (2015.11 - EP)

Citation (search report)
See references of WO 2022008506A1

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 2022008506 A1 20220113; CN 115836401 A 20230321; EP 4179582 A1 20230517; JP 2023532438 A 20230728; KR 20230038258 A 20230317; US 2023282887 A1 20230907

DOCDB simple family (application)
EP 2021068652 W 20210706; CN 202180048069 A 20210706; EP 21737475 A 20210706; JP 2022579026 A 20210706; KR 20237004972 A 20210706; US 202118004398 A 20210706