

Title (en)
METHOD FOR SELECTIVELY SEPARATING A CARBON-CONTAINING MATERIAL FROM A MIXTURE OF POSITIVE ELECTRODES AND NEGATIVE ELECTRODES

Title (de)
VERFAHREN ZUR SELEKTIVEN ABTRENNUNG EINES KOHLENSTOFFHALTIGEN MATERIALS AUS EINER MISCHUNG AUS POSITIVEN UND NEGATIVEN ELEKTRODEN

Title (fr)
PROCEDE DE SEPARATION SELECTIVE D'UN MATERIAU CARBONE D'UN MELANGE D'ELECTRODES POSITIVES ET D'ELECTRODES NEGATIVES

Publication
EP 4158719 A1 20230405 (FR)

Application
EP 21734404 A 20210527

Priority
• FR 2005708 A 20200529
• FR 2021050960 W 20210527

Abstract (en)
[origin: CA3180225A1] Disclosed is a method for selectively separating a carbon-containing material from a mixture comprising a positive electrode and a negative electrode originating from fuel cells and/or electrochemical batteries, the method comprising the following successive steps: a) providing a mixture comprising a positive electrode and a negative electrode, each electrode comprising a current collector, an active material and a binder, the active material of the negative electrode being a carbon-containing material, preferably graphite, b) bringing the mixture comprising the positive electrode and the negative electrode into contact with a separating solution, in the presence of ultrasound, the separating solution comprising a solvent and possibly additives, until the carbon-containing material is selectively separated from the current collector of the negative electrode, the active material of the positive electrode remaining joined to the current collector of the positive electrode.

IPC 8 full level
H01M 10/54 (2006.01)

CPC (source: EP KR US)
B09B 3/35 (2022.01 - US); **B09B 3/70** (2022.01 - US); **B09B 3/80** (2022.01 - US); **C01B 32/215** (2017.07 - US); **H01M 4/525** (2013.01 - KR); **H01M 4/587** (2013.01 - KR); **H01M 10/54** (2013.01 - EP KR US); **B09B 2101/16** (2022.01 - US); **Y02W 30/84** (2015.05 - EP)

Citation (search report)
See references of WO 2021240113A1

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 3111020 A1 20211203; FR 3111020 B1 20220722; CA 3180225 A1 20211202; EP 4158719 A1 20230405; JP 2023527553 A 20230629; KR 20230034229 A 20230309; US 2023223610 A1 20230713; WO 2021240113 A1 20211202

DOCDB simple family (application)
FR 2005708 A 20200529; CA 3180225 A 20210527; EP 21734404 A 20210527; FR 2021050960 W 20210527; JP 2022573575 A 20210527; KR 20227045920 A 20210527; US 202118000059 A 20210527