

Title (en)
METHOD FOR PRODUCING A POLYMER COMPOSITE MATERIAL FOR AN ELECTROCHEMICAL CELL BY MEANS OF A SWOLLEN POLYMER

Title (de)
VERFAHREN ZUR HERSTELLUNG EINES POLYMERVERBUNDWERKSTOFFS FÜR EINE ELEKTROCHEMISCHE ZELLE MITTELS EINES GEQUOLLENEN POLYMERS

Title (fr)
PROCÉDÉ DE FABRICATION D'UN MATÉRIAU COMPOSITE POLYMÈRE POUR UNE CELLULE ÉLECTROCHIMIQUE UTILISANT UN POLYMÈRE GONFLÉ

Publication
EP 3811442 A1 20210428 (DE)

Application
EP 19732273 A 20190607

Priority
• DE 102018209937 A 20180620
• EP 2019064963 W 20190607

Abstract (en)
[origin: WO2019243085A1] The present invention relates to a method for producing a polymer composite material, particularly an electrode (10) and/or a separator, for an electrochemical cell, particularly for a battery cell and/or fuel cell and/or electrolysis cell. In order to improve the production of polymer composite materials, in the form of electrodes and/or separators, for example, particularly for electrochemical cells, and the properties and/or functionality thereof, such as the specific energy density and/or electrical conductivity thereof, at least one swellable polymer (1) is mixed with a solvent quantity of at least one solvent (2), which can be absorbed completely in the at least one swellable polymer (1) by swelling the at least one swellable polymer (1) and which swells the at least one swellable polymer (1), and with at least one particulate material (3, 4). A polymer composite material, particularly an electrode (10) and/or a separator, for an electrochemical cell, particularly for a battery cell and/or fuel cell and/or electrolysis cell, is then formed from the mixture (1, 2, 3, 4).

IPC 8 full level
H01M 4/04 (2006.01); **H01M 4/131** (2010.01); **H01M 4/133** (2010.01); **H01M 4/1391** (2010.01); **H01M 4/1393** (2010.01); **H01M 4/62** (2006.01); **H01M 8/106** (2016.01); **H01M 10/0565** (2010.01); **H01M 10/0566** (2010.01); **H01M 50/403** (2021.01)

CPC (source: EP US)
C25B 11/00 (2013.01 - EP); **C25B 11/04** (2013.01 - EP US); **C25B 13/08** (2013.01 - EP US); **H01M 4/0411** (2013.01 - EP US); **H01M 4/0414** (2013.01 - EP); **H01M 4/043** (2013.01 - EP); **H01M 4/0435** (2013.01 - EP US); **H01M 4/131** (2013.01 - EP US); **H01M 4/133** (2013.01 - EP US); **H01M 4/1391** (2013.01 - EP US); **H01M 4/1393** (2013.01 - EP US); **H01M 4/622** (2013.01 - EP); **H01M 4/623** (2013.01 - EP US); **H01M 4/625** (2013.01 - EP US); **H01M 8/106** (2013.01 - EP US); **H01M 10/0565** (2013.01 - EP); **H01M 10/0566** (2013.01 - EP); **H01M 50/403** (2021.01 - EP US); **H01M 50/414** (2021.01 - US); **H01M 50/446** (2021.01 - EP US); **Y02E 60/10** (2013.01 - EP); **Y02E 60/50** (2013.01 - EP); **Y02P 70/50** (2015.11 - EP)

Citation (search report)
See references of WO 2019243085A1

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

DOCDB simple family (publication)
DE 102018209937 A1 20191224; EP 3811442 A1 20210428; US 2021273290 A1 20210902; WO 2019243085 A1 20191226

DOCDB simple family (application)
DE 102018209937 A 20180620; EP 19732273 A 20190607; EP 2019064963 W 20190607; US 201917254369 A 20190607