

Title (en)
METHOD FOR MANUFACTURING LITHIUM-ION BATTERIES

Title (de)
VERFAHREN ZUR HERSTELLUNG VON LITHIUM-IONEN-BATTERIEN

Title (fr)
PROCEDE DE FABRICATION DE BATTERIES A IONS DE LITHIUM

Publication
EP 4128387 A1 20230208 (FR)

Application
EP 21714695 A 20210330

Priority

- FR 2003108 A 20200330
- IB 2021052606 W 20210330

Abstract (en)
[origin: CA3173400A1] Method for manufacturing a lithium-ion battery with a capacity greater than 1 mAh, comprising the depositing of at least one dense layer, which can be an anode and/or a cathode and/or an electrolyte, using a dense layer depositing method comprising the following steps: procuring a substrate and a suspension of non-agglomerated nanoparticles of a material P; depositing a layer, on the substrate, from the suspension; drying the layer produced in this manner; compacting the dried layer using mechanical compression and/or heat treatment; the depositing method being characterised in that the suspension of non-agglomerated nanoparticles of material P comprises nanoparticles of material P having a size distribution, the size being characterised by its value D50, such that: - the distribution comprises nanoparticles of material P of a first size D1 between 20 nm and 50 nm, and nanoparticles of material P of a second size D2, characterised by a value D50 at least five times less than that of D1; or - the distribution has an average size of nanoparticles of material P that is less than 50 nm and a ratio of standard deviation from the average size greater than 0.6.

IPC 8 full level
H01M 4/04 (2006.01); **B01J 35/00** (2006.01); **B01J 37/02** (2006.01); **B82Y 30/00** (2006.01); **C23C 18/12** (2006.01); **C25D 13/02** (2006.01); **C25D 15/00** (2006.01); **H01M 4/139** (2006.01); **H01M 10/0525** (2006.01); **H01M 10/0562** (2006.01); **H01M 10/0585** (2006.01)

CPC (source: EP IL KR US)
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Citation (search report)
See references of WO 2021198892A1

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Designated extension state (EPC)
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KH MA MD TN

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