

ABSTRACT**METHOD FOR MANUFACTURING DENSE LAYERS THAT CAN BE USED AS ELECTRODES AND/OR ELECTROLYTES FOR LITHIUM ION BATTERIES, AND LITHIUM ION MICROBATTERIES OBTAINED IN THIS WAY**

Method for manufacturing a dense layer, comprising the following steps: supplying a substrate and a suspension of non-agglomerated nanoparticles of a material P; depositing a layer, on said substrate, using said suspension; drying the layer thus obtained; densifying the dried layer by mechanical compression and/or heat treatment;

said method being characterised in that the suspension of non-agglomerated nanoparticles of material P comprises nanoparticles of material P having a size distribution, said size being characterised by the value of D50 thereof, 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 a mean size of nanoparticles of material P less than 50 nm, and a standard deviation to mean size ratio greater than 0.6.

No Figure