

Title (en)
PROCESS FOR MANUFACTURING SILICON-CONTAINING MATERIALS

Title (de)
VERFAHREN ZUR HERSTELLUNG VON SILICIUM ENTHALTENDEN MATERIALIEN

Title (fr)
PROCÉDÉ DE FABRICATION DE MATÉRIAUX CONTENANT DU SILICIUM

Publication
EP 4222292 A1 20230809 (DE)

Application
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Abstract (en)
[origin: WO202211830A1] The invention relates to a process for manufacturing silicon-containing materials in a fluidized-bed reactor by depositing silicon from at least one silicon precursor in pores and on the surface of porous particles, characterized in that a pulsating fluidizing gas stream travels in waves in the fluidized-bed reactor and acts on the fluidized bed in such a way that a homogeneously fluidized bed is created which is characterized by a minimum fluidization index FI of 0.95. The invention also relates to the use of the silicon-containing materials obtained according to the disclosed process as active materials for anodes of lithium-ion batteries and corresponding lithium-ion batteries which contain, in the anode, a silicon-containing material obtained according to the disclosed process.

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