

Title (en)
MIXED LITHIUM SILICATES

Title (de)
GEMISCHE LITHIUMSILIKATE

Title (fr)
SILICATES MIXTES DE LITHIUM.

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Application
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Abstract (en)
[origin: FR2912398A1] A method for the preparation of mixed silicates of lithium and iron, cobalt, manganese or nickel in the form of spherical, non-agglomerated particles in the size range 400-600 nm, involves heating an aqueous mixture of the corresponding precursors at between 60[deg] C and the boiling point and at pH 10-14 until precipitation is complete and then separating and drying the product. A method for the preparation of compounds of formula $\text{Li}_2\text{M} \text{I} > \text{I} 1 - x \text{M} \text{I} > \text{I} x \text{SiO}_4(\text{OH}) x(\text{I})$, in which M : iron, cobalt, manganese or nickel; x : 0-1 , in the form of substantially spherical, non-coalesced particles with a particle size of 400-600 nm, showing a structure in space group Pna2 1 and possibly Pccn. The method involves (a) making an aqueous mixture of the precursors, (b) heating under atmospheric pressure to a temperature (Tp) between 60[deg] C and the boiling point, maintaining the temperature until the formation and precipitation of (I) is complete, (c) separating the precipitate and drying. Stage (a) involves adding the precursors of M, silicon and lithium to water and adjusting the solution to pH 10-14; stages (a) and (b) are carried out with stirring. Independent claims are also included for (1) silicates of formula (I) as described above (2) active positive electrode material comprising (I), for electrochemical devices (3) positive electrodes for such devices, containing (I) as active material (4) batteries comprising positive and negative electrodes separated by an electrolyte consisting of a solution of lithium salt, in which the positive electrode contains (I) as above .

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