

Title (en)

METHOD FOR PRODUCING A CERAMIC MATERIAL FOR THERMAL ENERGY STORAGE

Title (de)

VERFAHREN ZUR HERSTELLUNG EINES KERAMISCHEN MATERIALS ZUR SPEICHERUNG THERMISCHER ENERGIE

Title (fr)

PROCÉDÉ DE FABRICATION D'UN MATÉRIAU CÉRAMIQUE POUR LE STOCKAGE THERMIQUE D'ÉNERGIE

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Application

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Abstract (en)

[origin: WO2019166741A1] The invention relates to a method for producing a ceramic material for thermal energy storage, characterised in that it comprises the production of a mixture of at least particles of clay and particles of natural and/or synthetic phosphate, and water, said mixture comprising between 0.5 and 40 mass % of phosphate in relation to the mass of the mixture, excluding the water, as well as the shaping and the firing of the mixture in order to produce the ceramic material. The invention also relates to a ceramic material for thermal energy storage, characterised in that it comprises a matrix of clay, and where appropriate, sand, and particles of a natural phosphate and/or a synthetic phosphate which are dispersed in said matrix, said ceramic material comprising between 0.5 and 40 mass % of phosphate in relation to the mass of the ceramic material. The invention also relates to a method for thermal energy storage in said ceramic material, characterised in that it comprises bringing a heat-transfer fluid into contact with said ceramic material, in such a way as to transfer heat from the heat-transfer fluid to the ceramic material in a charging phase and to transfer heat from the ceramic material to the heat-transfer fluid in a discharging phase.

IPC 8 full level

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