

Title (en)

METHOD FOR PRODUCING NANOPARTICLES FROM A LIQUID MIXTURE

Title (de)

VERFAHREN ZUR HERSTELLUNG VON NANOPARTIKELN AUS EINER FLÜSSIGEN MISCHUNG

Title (fr)

PROCÉDÉ DE FABRICATION DE NANOPARTICULES À PARTIR D'UN MÉLANGE LIQUIDE

Publication

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Application

EP 18714986 A 20180316

Priority

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- EP 2018056691 W 20180316

Abstract (en)

[origin: WO2018167281A1] The invention relates to a method for producing nanoparticles from a liquid mixture of at least one precursor and at least one solvent in a continuous flow reactor, having the following steps: a) introducing at least one oxygen-containing gas inlet flow (E) at a temperature (TE) into the at least one reactor, b) adding at least one fuel (B) at a temperature (TB) into the oxygen-containing gas inlet flow, wherein the fuel and the oxygen-containing gas inlet flow form a homogeneous ignitable mixture (ZM) at a temperature (TZM), the temperature of the homogeneous ignitable mixture (TZM) lying above the spontaneous ignition temperature (TEntzZM) of the homogeneous ignitable mixture; c) introducing at least one precursor/solvent mixture into the homogenous ignitable mixture (ZM); d) spontaneously combusting the ignitable mixture (ZM) of the oxygen-containing gas and the fuel after an ignition delay time (tvz), thereby forming a stabilized flame, and converting the precursor/solvent mixture in the stabilized flame, thereby forming nanoparticles from the precursor; and e) removing the formed nanoparticles from the reactor.

IPC 8 full level

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Citation (search report)

See references of WO 2018167281A1

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