

Title (en)

METHOD FOR THE CONTINUOUS PRODUCTION OF DISPERSIONS IN A VORTEX REACTOR

Title (de)

VERFAHREN ZUR KONTINUIERLICHEN HERSTELLUNG VON DISPERSIONEN IN EINEM WIRBELKAMMERREAKTOR

Title (fr)

PROCÉDÉ DE PRODUCTION CONTINUE DE DISPERSIONS DANS UN RÉACTEUR À CHAMBRE DE TURBULENCE

Publication

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Application

**EP 07818529 A 20070928**

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Abstract (en)

[origin: WO2008058593A1] The invention relates to a method for the continuous production of stable dispersions, containing dispersed particles with a particle size  $d_{50}$  of at least 1 micrometre, in a concentration of between 1 and 70 % by weight, in relation to the total weight of the dispersion. Said method is characterised in that: a) a component to be dispersed (disperse phase) in liquid form is continuously metered through a nozzle at a temperature of between 10 and 350°C and a pressure of between 1 and 2,000 bar via a first inlet into a vortex reactor with a vortex chamber volume of between 0.1 and 100 ml, by means of a control valve, extruder and/or pump; b) a dispersant (continuous phase) is continuously metered via a second inlet into the vortex reactor at a pressure of between 1 and 2,000 bar and a temperature of between 10 and 350°C; c) one or more dispersing agents are either added to the disperse phase and mixed and/or are added to the continuous phase and mixed and/or are continuously metered via a third inlet into the vortex reactor at a pressure of between 1 and 2,000 bar and a temperature ranging between 10 and 350°C; d) the mixture obtained as per steps a) to c) remains for between 0.001 second and 10 minutes in the vortex reactor and optionally in a holding module, which maintains the temperature of the mixture obtained as per steps a) to c) at a constant level; and e) the dispersion produced in step d) is introduced into one or more heat exchangers and is cooled to a temperature of between 10 and 250°C over a period lasting between 0.001 second and 10 minutes.

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