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(54) Title: MICROENCAPSULATION PROCESS USING SUPERCRITICAL FLUIDS

(57) Abstract

The present invention comprises a method for microencapsulating a core material comprising the steps of a) mixing a core material with an encapsulating polymer, b) supplying to the mixture a supercritical fluid capable of swelling the polymer under a temperature and a pressure sufficient to maintain the fluid in a supercritical state, c) allowing the supercritical fluid to penetrate and liquefy the polymer while maintaining temperature and pressure sufficient to maintain the fluid in a supercritical state, and d) rapidly releasing the pressure to solidify the polymer around the core material to form a microcapsule. This method requires neither that the polymer nor core materials be soluble in the supercritical fluid and can be used to rapidly and efficiently microencapsulate a variety of materials for a variety of applications.