

Accepted Manuscript

Title: Production of Solid Lipid Nanoparticles with a Supercritical Fluid Assisted Process

Authors: P. Trucillo, R. Campardelli

PII: S0896-8446(18)30433-9
DOI: <https://doi.org/10.1016/j.supflu.2018.08.001>
Reference: SUPFLU 4344



To appear in: *J. of Supercritical Fluids*

Received date: 28-6-2018
Revised date: 31-7-2018
Accepted date: 1-8-2018

Please cite this article as: Trucillo P, Campardelli R, Production of Solid Lipid Nanoparticles with a Supercritical Fluid Assisted Process, *The Journal of Supercritical Fluids* (2018), <https://doi.org/10.1016/j.supflu.2018.08.001>

This is a PDF file of an unedited manuscript that has been accepted for publication. As a service to our customers we are providing this early version of the manuscript. The manuscript will undergo copyediting, typesetting, and review of the resulting proof before it is published in its final form. Please note that during the production process errors may be discovered which could affect the content, and all legal disclaimers that apply to the journal pertain.

Production of Solid Lipid Nanoparticles with a Supercritical Fluid Assisted Process

P. Trucillo^a, R. Campardelli^{*,b}

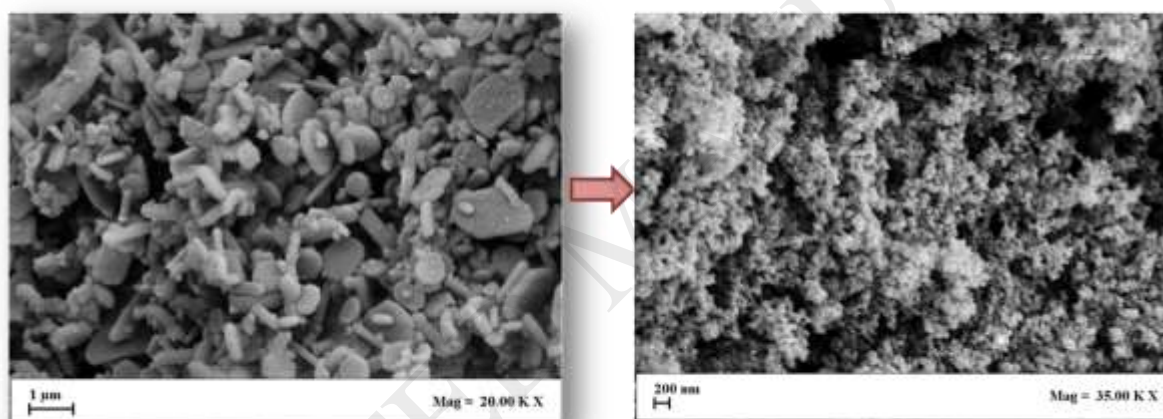
^a Department of Industrial Engineering, University of Salerno, Via Giovanni Paolo II, 132 – 84084 Fisciano (SA), ITALY

^b Department of Civil, Chemical and Environmental Engineering (DICCA), University of Genoa, Via Opera Pia 15, 16145 Genova (GE), Italy

[*roberta.campardelli@unige.it](mailto:roberta.campardelli@unige.it)

Graphical Abstract

Solid Lipid Nanoparticles morphology control using SCF



Highlights

Solid lipid nanoparticles production using lipids of different nature

Successful control of solid lipid nanoparticles morphology

Solid lipid nanoparticles produced directly as stabilized water suspensions

ABSTRACT

In this work, a supercritical fluid continuous process, the Supercritical Assisted Injection in a Liquid Antisolvent (SAILA), was proposed for the production of solid lipid nanoparticles (SLNs). SLNs of soy lecithin, cholesterol and stearic acid were produced in this work. Acetone and ethanol were used as solvents. The effect of lipid concentration on particles size distribution and morphology was studied. SLNs with mean dimensions included between 158 ± 53 nm and 326 ± 169 nm were obtained for soy lecithin particles, between 151 ± 74 nm and 207 ± 57 nm for

Download English Version:

<https://daneshyari.com/en/article/8941481>

Download Persian Version:

<https://daneshyari.com/article/8941481>

[Daneshyari.com](https://daneshyari.com)