

## Accepted Manuscript

Title: Supercritical Impregnation of food packaging films to provide antioxidant properties

Authors: C. Cejudo Bastante, L. Casas Cardoso, C. Mantell Serrano, E.J. Martínez de la Ossa



PII: S0896-8446(17)30225-5  
DOI: <http://dx.doi.org/doi:10.1016/j.supflu.2017.05.034>  
Reference: SUPFLU 3946

To appear in: *J. of Supercritical Fluids*

Received date: 28-3-2017  
Revised date: 31-5-2017  
Accepted date: 31-5-2017

Please cite this article as: C.Cejudo Bastante, L.Casas Cardoso, C.Mantell Serrano, E.J.Martínez de la Ossa, Supercritical Impregnation of food packaging films to provide antioxidant properties, The Journal of Supercritical Fluids <http://dx.doi.org/10.1016/j.supflu.2017.05.034>

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.

Supercritical Impregnation of food packaging films to provide antioxidant properties

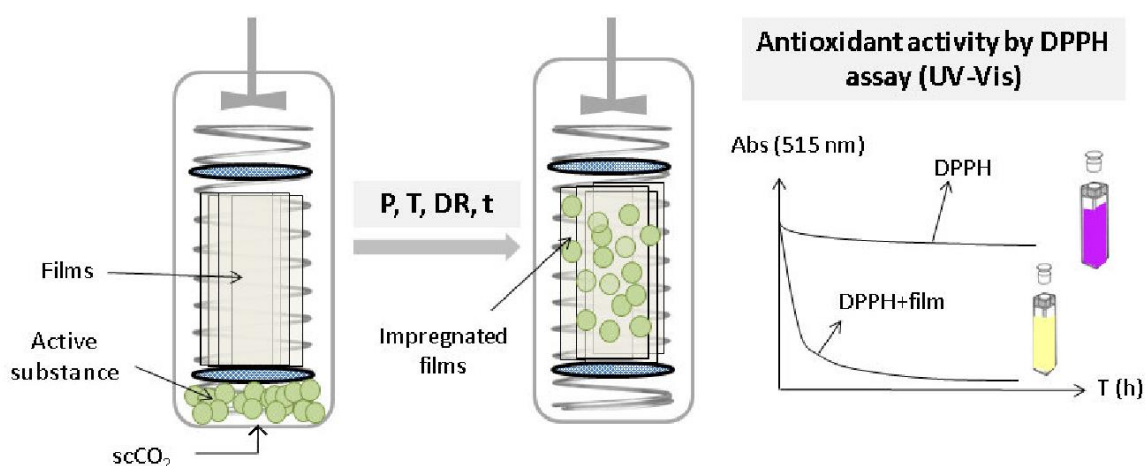
C. Cejudo Bastante\*, L. Casas Cardoso, C. Mantell Serrano, E.J. Martínez de la Ossa

Chemical Engineering and Food Technology Department, Wine and Agrifood Research Institute (IVAGRO), University of Cadiz

Avda. República Saharaui, s/n, 11510 - Puerto Real, Cádiz (Spain)

\*corresponding author: Cejudo Bastante, Cristina. [crisrina.cejudo@uca.es](mailto:crisrina.cejudo@uca.es)

Graphical abstract



### Highlights:

Antioxidant films for an alimentary use have been obtained by SSI.

SSI is an intricate process and all the variables involved need to be studied.

Impregnation yield increased when olive leaf extract was used as active substance.

### ABSTRACT

Among the different techniques employed to develop active packaging, supercritical solvent impregnation (SSI) of natural extracts is an innovative approach. When developing a method to obtain polyethylene terephthalate/polypropylene (PET/PP) films with antioxidant capacity, several parameters (pressure, temperature, depressurization rate, presence of modifier and time) were studied with caffeic acid as a model substance. The best conditions were applied to an olive leaf extract as a natural extract with antioxidant properties. Antioxidant activity was evaluated by the

Download English Version:

<https://daneshyari.com/en/article/4909666>

Download Persian Version:

<https://daneshyari.com/article/4909666>

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