

Datos personales

Nombre: Antonio Mulet Pons

Situación Profesional Actual:

Teléfono:

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Profesor desde 21/01/81

Palabras claves

Heat and mass transfer (drying, heat transfer, extraction). Modelling and simulation. Low and high intensity ultrasonics. Supercritical fluids

Formación Académica

Titulación Superior	Institution	Fecha
Licenciado en Ciencias Químicas	Universidad de Valencia (Spain)	1970
Diplôme d'Etudes Approfondies	Université Paris VII (France)	1971
MS Chemical Engineering	MIT (USA)	1979
Chemical Engineer	MIT (USA)	1980

Doctorado

Ciencias Químicas	Universidad de Valencia (Spain)	1976
Docteur Ingenieur	Institut National Polytechnique de Toulouse (France)	1980

ACTIVIDADES CIENTÍFICAS Y PROFESIONALES

<u>FECHA</u>	<u>ACTIVIDAD</u>	<u>INSTITUTION</u>
1969-1970	Research	Instituto de Agroquímica y Tecnología de Alimentos (Valencia, Spain).
1970- 1972	Research	Université Paris VII "Jussieu" (France).
1972-1973	Research	Institut National Polytechnique de Toulouse (IGC) (France)
1973-1974	Prof. Assistant. Chem. Eng.	Institut National Polytechnique de Toulouse (IGC) (France)
1974-1975	Research	Institut National Polytechnique de Toulouse (IGC) (Toulouse)
1975-1976	Assistant Prof. Chem. Eng.	Universidad de Valencia (Spain)
1976-1977	Associate Prof. Chem.Eng.	Universidad de Valencia (Spain)
1977-1980	Research	Massachusetts Institute of Technology (USA)
1981-1983	Associate Prof. Chem. Eng.	Universidad de les Illes Balears (Spain)
1983-1990	Catedrático (Prof.) Chem. Eng.	Universidad de les Illes Balears (Spain)
1988-1993	Deputy Director Research	Agrofood Industry Research Association (Valencia, Spain)
1990-to date	Catedrático (Prof.) Food Eng.	Universidad Politécnica Valencia (Spain)

RECONOCIMIENTOS INTERNACIONALES

AWARD FOR EXCELLENCE IN DRYING: TRANSFERING FUNDAMENTAL RESULTS INTO PRACTICE.

AFSIA, Association Française pour la Séchage dans l'Industrie et l'Agriculture. Fifteenth International Drying Symposium. August 2006.

Ig Nobel Chemistry 2006

Proyectos

Responsable en más de 25 proyectos de investigación (nacionales e internacionales).

Artículos de investigación

Autor de más de 200 artículos, siendo los últimos

Clemente, G., Sanjuán, N., Cárcel, J.A., Mulet, A. Influence of temperature, air velocity and ultrasound application on drying kinetics of grape seeds. *Drying Technology*, 32(1), 68-76, 2014. DOI: 10.1080/07373937.2013.811592.

Miranda, G., Berna, A., Gonzalez, R., Mulet, A. The storage of dried apricots: The effect of packaging and temperature on the changes of texture and moisture. *Journal of Food Processing and Preservation*, 38, 565-572, 2014. DOI: 10.1111/jfpp.12004.

Rodríguez, J., Castro-Melo, E., Mulet, A., Bon, J. Management of Surface Drying Temperature to Increase Antioxidant Capacity of Thyme Leaf Extracts (*Thymus Vulgaris* L.). *Drying Technology*. DOI: 10.1080/07373937.2014.917094.

Rodriguez, J., Castro-Melo, E., Mulet, A., Bon, J. Gestion del secado para aumentar la capacidad antioxidante del tomillo (*Thymus vulgaris* L.). *Rev. Fac. Nal. Agr. Medellin*. 67(2), Supl.2, 394-396, 2014.

Rodriguez, J., Mulet, A., Bon, J. Influence of high-intensity ultrasound on drying kinetics in fixed beds of high porosity. *J. Food Engineering* 127, 93-102, 2014.

Santacatalina, J.V., Fissore, D., Cárcel, J.A., Mulet, A., Garcia-Perez, J.V. Model-based investigation into atmospheric freeze drying assisted by power ultrasound. *J. Food Engineering*. 151, 2015.

Brines, C., Mulet, A., García-Pérez, J.V., Riera, E., Cárcel, J.A. Influence of the ultrasonic power applied on freeze drying kinetics. *Physics Procedia*. 70, 850-853, 2015. DOI: 10.1016/j.phpro.2015.08.174.

Benedito, J., Ortuño, C., Castillo-Zamudio, R.I., Mulet, A. Microbial inactivation by ultrasound assisted supercritical fluids. *Physics Procedia*. 70, 824-827, 2015. DOI: 10.1016/j.phpro.2015.08.168.

García-Pérez, J.V., De Prados, M., Martínez-Escrivá, G., González, R., Mulet, A., Benedito, J. Exploring the use of low-intensity ultrasonics as a tool for assessing the salt content in pork meat products. *Physics Procedia*. 70, 837-840, 2015. DOI: 10.1016/j.phpro.2015.08.171.

Santacatalina, J.V., Guerrero, M.E., García-Pérez, J.V., Mulet, A., Cárcel, J.A. Ultrasonically assisted low-temperature drying of desalted codfish. *LWT-Food science and Technology* 65, 444-450, 2016.

L.Cruz, Clemente, G., Mulet, A., Ahmad-Qasem, M.H., Barrajón-Catalán, E. García-Pérez, J.V. Air-borne ultrasonic application in the drying of grape skin: Kinetic and quality considerations. *J. Food Engineering* 168, 251-258, 2016.

Mulet, A., Fernández-Salguero, J., García-Pérez, J.V., Bon, J. Mechanistic modeling to address process analysis: Kibbles of carob (*Ceratonia siliqua*, L) pod extraction. *J. Food Engineering*. 176, 71-76, 2016.

Paniagua-Martínez, I., Mulet, A., García-Alvarado, M.A., Benedito, J. Ultrasound-assisted supercritical CO₂ treatment in continuous regime: Application in *Saccharomices cerevisiae* inactivation. J. Food Engineering. <http://dx.doi.org/10.1016/j.jfoodeng.2016.02.024>.

Doctorado

Director de más de 20 tesis doctorales.

PATENTES

Autor de 12 patentes, siendo las dos últimas

Authors: Benedito, J., Martínez-Pastor, M.T., Ortuño, C., Peña, R., Mulet, A.

Title: Procedure to inactivate microorganisms combining supercritical fluids and ultrasound.

Registration number: deposit P201131099

Owner: Universidad Politécnica de Valencia. Year: 2011

Countries: España

Authors: Cárcel, J.A., García-Pérez, J.V., Peña, R., Mulet, A., Riera, E., Acosta, V., Gallego-Juarez, J.A.

Title: Procedure and device to improve mass transfer at low temperature through the use of high intensity ultrasound.

Registration number: deposit P201131512

Owner: Universidad Politécnica de Valencia. Year: 2011

Countries: España