

Alexis López-Padilla

Avenida 50A N°54-78

051053, Bello, Antioquia, Colombia

(+57)3127222481; lopezpadillaalexis@gmail.com

Research Interest and Goals

- *Develop* new ingredients and additives for food industry/processing according to consumption, recycling, and environmental preservation needs.
 - *Apply* my strong analytical, communication and social skills in research, development and innovation for food industry/processing.
 - *Research* in Agribusiness and Food Industry.
-

Academic Formation

PhD Food Science (<i>Cum Laude</i>)	Autonomous University of Madrid, Spain	9/2017
Master in Pharmaceutical Sciences	University of Antioquia, Colombia	6/2012
Bachelors in Food Engineering	University of Antioquia, Colombia	9/2008
Bachelors in Food Technology	University of Antioquia, Colombia	12/2004

Professional experience

Professor. Food Engineering	University of Antioquia, Colombia	2018
Staff Research. Natural Products	Institute of Food Science Research – (CIAL), Spain	2013-2017
Researcher. Food Ingredients	Tecnas S.A., Colombia	2008-2013
Researcher. Agribusiness Projects	INTAL Foundation, Colombia	2010-2013
Professor. Food Engineering	University of Antioquia, Colombia	2010-2012

Relevant contributions

As a researcher at Institute of Food Science Research (CIAL-CSIC,UAM) placed in Madrid, Spain, worked on natural products research projects developing new food ingredients using green technologies and publishing some of his results in international peer reviewed scientific journals (2014-2018). Heading R&D+Innovation industry projects as a member of research department at Tecnas S.A. reaching US\$ 2.5 million dollars (2009 – 2013). Heading collaborative research projects at INTAL Foundation, developing new research lines focused on agribusiness and getting US\$ 1.2 million in equipment, facilities and human resources (2010-2013). Actually is working as part-time professor for food Engineering at University of Antioquia (Colombia)

Relevant Contributions Published

Alexis López-Padilla, Alejandro Ruiz-Rodríguez, Guillermo Reglero, Tiziana Fornari. Supercritical extraction of solid materials: a practical correlation related with process scaling. *J Food Eng.* 222(2018) 199-206.

Alexis López-Padilla, Diana Martín, David Villanueva-Bermejo, Laura Jaime, Alejandro Ruíz-Rodríguez, Claudia Estela Restrepo Flórez, Diana Marsela Rivero Barrios, Tiziana Fornari. *Vaccinium meridionale* Swartz extracts and their addition in beef burgers as antioxidant ingredient. *J Sci Food Agric.* 2018 January; 98(1):377-383.

Catalina Yepes Escobar, Esteban Largo, Claudia Restrepo Flórez, Claudia Isabel Ochoa-Martínez, David Villanueva-Bermejo, **Alexis López-Padilla**. Effect of Refractance Windows™ Drying, Spray Drying and Oven Drying on Physical and Sensory properties of Peach (*Prunus persica* L.). *Inno Food Sci and Emerg Tech.* (2018). IFSET_2017_1308 (Sent: 20.12.17).

Alexis López-Padilla, Alejandro Ruiz-Rodríguez, Guillermo Reglero, Tiziana Fornari. Supercritical carbon dioxide extraction of *Calendula officinalis*: kinetic modeling and scaling up study. *J Supercritical Fluids*, 130 (2017) 292–300.

Mónica R. García-Risco, Lamia Mouhid, Lilia Salas-Pérez, **Alexis López-Padilla**, Susana Santoyo, Laura Jaime, Ana Ramírez de Molina, Guillermo Reglero, Tiziana Fornari. Biological Activities of Asteraceae (*Achillea millefolium* and *Calendula officinalis*) and Lamiaceae (*Melissa officinalis* and *Origanum majorana*) Plant Extracts. *Plant Foods Hum Nutr*, 2017 Jan; DOI: 10.1007/s11130-016-0596-8.

Alexis López-Padilla, Alejandro Ruiz-Rodríguez, Claudia Estela Restrepo Flórez, Diana Marsela Rivero Barrios, Guillermo Reglero, Tiziana Fornari. *Vaccinium meridionale* Swartz Supercritical CO₂ Extraction: Effect of Process Conditions and Scaling Up. *Materials* 9 (2016), 519; doi:10.3390/ma9070519.

Alexis López-Padilla, Alejandro Ruiz-Rodríguez, Guillermo Reglero, Tiziana Fornari. Study of the diffusion coefficient of solute-type extracts in supercritical carbon dioxide: Volatile oils, fatty acids and fixed oils. *J Supercritical Fluids*, 109 (2016) 148–156.

José María Pinilla, **Alexis López-Padilla**, Gonzalo Vicente, Tiziana Fornari, José Carlos Quintela, Guillermo Reglero. Recovery of betulinic acid from plane tree (*Platanus acerifolia* L.). *J Supercritical Fluids* 95 (2014) 541–545.

Cristian Salazar-Posada, **Alexis López-Padilla**, Jaime Andrés Cano-Salazar. Effect of the pH and of the temperature on the enzymatic hydrolysis of by-products from bovine industries. *Revista Lasallista de Investigación, Colombia*, 2012; 9(2): 26 – 32.

Johana Alzate-Ceballos, **Alexis López-Padilla**, Jilmer Caicedo, Jaime Andrés Cano-Salazar. Obtaining the cyclodextrine-curcumin complex and its use as a substitute of tartrazine. *Revista Lasallista de Investigación, Colombia*, 2012; 9(2): 75 – 86.

Conferences

“Mortiño (*Vaccinium meridionale* Swartz) extracts and their addition in beef Burger as an antioxidant ingredient”. Authors: **Alexis López-Padilla**, Diana Martín, Claudia Restrepo, Laura Jaimes, Alejandro Ruiz-Rodríguez, David Villanueva, Tiziana Fornari. In: The Food Factor I Barcelona Conference, Barcelona, Spain, 2 to 4 of November, 2016.

“Study of the scaling of supercritical batch extraction processes for the production of functional food ingredients”. Author: **Alexis López-Padilla**. In: Institute of Food Science Research CIAL-CSIC, Madrid, Spain, 7th October, 2016.

“Scaling of supercritical fluid extraction processes” - I Contest Theses in 3 minutes – Universidad Autónoma de Madrid. Author: **Alexis López-Padilla**. In: Universidad Autónoma de Madrid, Madrid, Spain, 25th May, 2017.

“Correlations to predict the diffusion coefficient of volatile and fixed oils in supercritical carbon dioxide. Authors: **Alexis López-Padilla**, Alejandro Ruiz-Rodríguez, Guillermo Reglero, Tiziana Fornari. In VII Meeting of experts on Compressed Fluid Technology (Flucomp 2015), Cádiz, Spain, 16th to 18th September, 2015. (*Póster*).

“Recovery of betulinic acid from plane tree (*Platanus acerifolia* L.). Autores: **Alexis López-Padilla**, José María Pinilla, Gonzalo Vicente, Tiziana Fornari, José Carlos Quintela, Guillermo Reglero. In VII Meeting of experts on Compressed Fluid Technology (Flucomp 2014), Barcelona, Spain 12th - 13rd June, 2014.

Training

Tracer diffusion coefficients in carbon dioxide. Advisor: Dr. Carlos Manuel Silva, Chemistry Engineering Department, University of Aveiro, Aveiro, Portugal, October to December of 2015.

Theory and Practical Course on compressed fluid technology. Flucomp BCN 2014. Barcelona, Spain, 10th – 11th June, 2014.

Languages

- Spanish (*Native*)
 - English (*Advanced*)
 - Portuguese (*Advanced*)
 - France (*Learning*)
-

Additional Skills

Innovator, service vocation, experience in statistics software (Statgraphics), experience in business development, has a professional network with +600 contacts in +25 countries, 21k runner, Underwater Rugby Player, Trekker/Hiker and drawing.

Referees

- Dr. Tiziana Fornari Reale. Autonomous University of Madrid, Director at *Food Science Research Institute* (CIAL-CSIC, UAM). Address: C/ Nicolás Cabrera, 9, 28049, Madrid, Spain. Phone: (+34)910017900 (+34)910017900. tiziana.fornari@uam.es
- Dr. Carlos Manuel Silva, Professor University of Aveiro, Director at EgiChem Group. Address: Campus Universitário de Santiago, 3810-193 Aveiro, Portugal. Phone: (+351)234401549 Ext: 33528. carlos.manuel@ua.pt
- Eng. Luz Stella Vanegas. R&D director at *Tecnas S.A.* Medellin, Colombia. Address: Carrera 50G N°12Sur-29, Medellin, Colombia. Phone: (+57)4285429, (+57)3113839377. gerenciainnovacion@tecnas.com.co
- Dr. Jaime Andrés Cano Salazar. Metropolitan Institute of Technology (ITM), Research Operative Director. Address: Calle 75 N°75-101, Medellin, Colombia. Phone: (+57)44600727 Ext:5628; (+57)3164371372. jaimecano@itm.edu.co.

Updated April 18th, 2018.