



CURRICULUM VITAE ABREVIADO (CVA)

IMPORTANT – The Curriculum Vitae cannot exceed 4 pages. Instructions to fill this document are available in the website.

Part A. PERSONAL INFORMATION

First name	NURIA		
Family name	CALERO ROMERO		
Gender (*)	FEMALE	Birth date (dd/mm/yyyy)	
Social Security, Passport, ID number		e-mail	
email:	URL Web: https://investigacion.us.es/sisius/sis_showpub.php?idpers=8258		
Open Research and Contributor ID (ORCID)(*)	0000-0002-7949-6955		

A.1. Current position

Position	SENIOR LECTURER (PROFESOR TITULAR DE UNIVERSIDAD)		
Initial date	11/12/2018		
Institution	UNIVERSIDAD DE SEVILLA		
Departament/Center	INGENIERÍA QUÍMICA/ESCUELA POLITÉCNICA SUPERIOR		
Country	SPAIN	Teleph. number	646127154
Key words	CHEMICAL ENGINEERING, NANOEMULSIONS, BIOPOLYMERS, ENCAPSULATION, COLLOIDS, RHEOLOGY		

A.2. Previous positions (research activity interruptions, art. 45.2.c))

Period	Position/Institution/Country/Interruption cause
02/2003-04/2007	PREDOCTORAL FELLOW ("BECA FPI")/UNIVERSIDAD DE SEVILLA
06/2007-03/2009	POST-DOCTORAL FELOW (AYUDA TORRES QUEVEDO)/INGENIATRIS (SPIN-OFF DE UNIVERSIDAD DE SEVILLA)
03/2009-07/2011	RESEARCH CONTRACT/ UNIVERSIDAD DE SEVILLA
07/2011-07/2015	LECTURER ("PROFESOR AYUDANTE DOCTOR")/UNIVERSITY OF SEVILLE
2016 (5 MONTHS APROX.)	RISK PREGNACY LEAVE / MATERNITY LEAVE
2017 (5 MONTHS APROX.)	MATERNITY LEAVE
07/2015-12/2018	LECTURER ("PROFESOR CONTRATADO DOCTOR")/ UNIVERSIDAD DE SEVILLA
2019 (7 MONTHS APROX)	RISK PREGNACY LEAVE /MATERNITY LEAVE
2020 (2,5 MONTHS APROX.)	MATERNITY LEAVE

A.3. Education

PhD, Licensed, Graduate	University/Country	Year
LICENSED IN CHEMISTRY - Specialized in Chemical Engineering	UNIVERSIDAD DE SEVILLA	2002
PhD IN CHEMISTRY	UNIVERSIDAD DE SEVILLA	2007

Part B. CV SUMMARY

• Scientific Contributions

- Author level and citation metrics
 - h Index: 21
 - Number of citations: 1397
- 45 papers in journals indexed in the Journal Citation Report (JCR). 24 of them in the first quartile of its category and 11 in the second quartile of its category (more than half in the chemical engineering and food science areas).
- 46 communications in international congresses and 6 in national congresses.
- 21 book chapters in books with ISBN.
- Participation in 16 research projects obtained in national and regional competitive calls.
- 4 stays in research centres of recognized international prestige:
 - 13 months in the Ingeniatics technology (Torres Quevedo research grant),
 - 3 months in the Chemical Engineering Department of University of Birmingham (Ayudas de excelencia research grant)
 - 4 months in the Department of Materials Science at the University Nova of Lisbon (José Castillejo research grant)
 - 3 months in the School of Agriculture and Food Science of the University of Lisbon (Modalidad A. Senior. Estancia de movilidad en el extranjero research grant)

• Contributions to Society

- Principal investigator and/or researcher in 15 research contracts with companies, such as: Ybarra SA, Persan SA, Cepsa Química, Abengoa Research, Reckitt-Benckiser, etc.
- Contribution to the development and consolidation of the spin-off of the University of Seville "Ingeniatics" participating as the principal investigator and a researcher in 13 research projects financed by public and private funds. It is noted my collaboration in a project "PROFIT SINGULAR" for the industrial development in which different companies, research Institutes and Institutions of recognized prestige have participated. This project was supported by Spanish Government with more than four million of euros.
- Conduct of various specialized training courses for qualified employees of different companies.
- Technical expert for 8 years for the evaluation of numerous R&D&i projects for the company EQA.
- Director of the Green Chair for Innovation, Sustainability, and Technology in Paints, established through a collaboration agreement between the University of Seville and the company Eurotex SL (2024-2028).

• Contribution to the formation of young researchers.

- Supervisor of 4 PhD students.
 1. PhD: José Antonio Carmona Gallego. **Title:** Caracterización reológica de polisacáridos de uso alimentario mediante ensayos oscilatorios lineales y no lineales. 2015
 2. PhD: Jenifer Santos García. **Title:** Producción y caracterización de emulsiones de un disolvente verde formuladas con mezclas de tensioactivos y biopolímero. 2017
 3. Pre-doctoral researcher: María Vela y Albarrán. **Title:** Desarrollo de emulsiones a partir de recursos vegetales (mucílago de chía) y algas (ficocianina y aceite de algas). In process
 4. Industrial doctorate. Pre-doctoral researcher: Miguel Vela Román. **Title:** Desarrollo de pintura sostenible con disolvente ecológico proveniente de la industria y secantes sin metales pesados. In process
- Direction of numerous Final Master's Projects and Final Degree's Projects.
- Guest lecturer in the specialized course of rheology organized for the National

University of La Plata (Argentina).

- **Other Contributions**

- As a reviewer, I reviewed numerous manuscripts which were submitted to international journals indexed in JCR related to food sciences and chemical engineering.
- + 2000 hours of University teaching, including in Master's degree.
- Participant in 3 Teaching Innovation Projects as a researcher and 1 as the principal investigator
- Member of the Spanish Royal Society of Chemistry. Specialized group: Grupo español de reología (GER)

Part C. RELEVANT MERITS

C.1. Publications

1. P.Tello, J. Santos, N. Calero, L.A. Trujillo. 2024. **Formulation and Characterization of Sustainable Algal-Derived Nanoemulgels: A Green Approach to Minimize the Dependency on Synthetic Surfactants.** *Polymers*, 16, 194.
2. C. Carrera, C. Bengoechea, F. Carrillo, N. Calero. 2023. **Effect of deacetylation degree and molecular weight on surface properties of chitosan obtained from biowastes.** *Food Hydrocolloids* 137.
3. P. Tello, N. Calero, J. Santos, L.A. Trujillo. 2023. **Development of Avocado and Lemon Oil Emulgels Based on Natural Products: Phycocyanin and Pectin.** *Pharmaceutics*, 15, 2067.
4. JA. Carmona, P. Ramírez, N. Calero, J. Muñoz. 2023 **Effect of the welan gum concentration on the rheological and structural behaviour of biocomposite hydrogels with sepiolite as filler.** *Polymers*, 15.
5. J. Santos, LA.Trujillo-Cayado, M Barquero, N Calero. 2022. **Influence of type and concentration of biopolymer on β -carotene encapsulation efficiency in nanoemulsions based on linseed oil.** *Polymers*, 14.
6. J. Santos, N. Calero, J. García-Capitán, J. Muñoz. 2020. **Preparation and characterization of emulgels loaded with sweet fennel oil.** *Journal of Dispersion Science and Technology.* *Journal of Dispersion Science and Technology*, 41, 1381.
7. J. Santos, N. Calero, LA. Trujillo-Cayado, MJ. Martín-Piñero, J. Muñoz. 2020. **Processing and formulation optimization of mandarin essential oil-loaded emulsions developed by microfluidization.** *Materials*, 13.
8. L.A.Trujillo-Cayado, J.Santos , N. Calero, M. C. Alfaro-Rodríguez, J. Muñoz, 2020. **Strategies for reducing Ostwald ripening phenomenon in nanoemulsions based on thyme essential oil.** *Journal of the Science of Food and Agriculture*, 100.
9. J. Santos, M. C. Alfaro, L. A. Trujillo-Cayado, N. Calero, J. Muñoz, 2019. **Encapsulation of β -carotene in emulgels-based delivery systems formulated with sweet fennel oil.** *LWT-Food Science and Technology.* 100. Pag. 189-195.
10. J. Santos, M. Jimenez, N. Calero, M.C. Alfaro, J. Muñoz, 2019. **Influence of a shear post-treatment on rheological properties, microstructure and physical stability of emulgels formed by rosemary essential oil and a fumed silica.** *Journal of Food Engineering*, 241, 136–148.

C.2. Congress

1. **Formulation and optimization of microfluidized nanoemulsions based on algae extract.** (oral). XXXIX REUNIÓN BIENAL DE LA SOCIEDAD ESPAÑOLA DE QUÍMICA, (Zaragoza, España) 2023
2. **Development and characterization of microfluidized emulgels stabilised using a fumed silica** (póster) IBEREO, (Lisboa, Portugal) 2024
3. **Interfacial rheology and emulsifying properties of phycocyanin and chia mucilage** (oral) IBEREO, (Lisboa, Portugal) 2024

C.3. Research projects

1. **Title:** Desarrollo de nanoemulgeles basados en alga kombu como excipiente para mejorar la bioaccesibilidad de nutraceuticos con actividad anticancerígena. **Financing entity:** Junta de Andalucía. **Principal investigators:** Calero N./ Alfaro, Trujillo L.A. **Personal contribution:** Principal investigator. **Project duration:** 3 years. **Amount financed:** 207646,74 €. Currently under evaluation.
2. **Title:** Desarrollo de nanoemulgeles con aplicación en sistemas de encapsulación basados en materiales sostenibles de origen biológico: extracto de microalga y mucílagos. **Financing entity:** Ministerio de Ciencia e Innovación. **Principal investigators:** Calero N./ Alfaro, Trujillo L.A. **Personal contribution:** Principal investigator. **Project duration:** from 01/12/2022 to 31/08/2025. **Amount financed:** 101.200 €.
3. **Title:** Formulation and processing of new low-oil content food emulsions enriched with dietary fibers submitted to mechanical treatment. **Financing entity:** Junta de Andalucía. **Principal investigators:** Alfaro MC./ Muñoz J. **Personal contribution:** Performed experimental tasks, took responsibility for specific work packages and coordinated efforts to support principal investigators. **Project duration:** from 02/12/2022 to 31/12/2025. **Amount financed:** 133.255 €.
4. **Title:** Producción y Caracterización de Nanoemulgeles de Aceite Esencial de Limón. Microfluidización Versus Ultrasonido. **Financing entity:** Junta de Andalucía. **Principal investigators:** Muñoz J. **Personal contribution:** Performed experimental tasks, took responsibility for specific work packages and coordinated efforts to support principal investigators. **Project duration:** from 01/01/2021 to 31/12/2022. **Amount financed:** 90000 €.
5. **Title:** Evaluación de la Homogeneización por Microcanales para la Preparación y Caracterización de Emulsiones Submicrónicas de Aceites Esenciales. **Financing entity:** Ministerio de Economía y Competitividad. **Principal investigators:** Muñoz J. **Personal contribution:** Performed experimental tasks, took responsibility for specific work packages and coordinated efforts to support principal investigators. **Project duration:** from 01/01/2016 to 31/12/2018. **Amount financed:** 118580 €.

C.4. Contracts, technological or transfer merits

1. **Director of the Green Chair for Innovation, Sustainability, and Technology in Paints.** **Financing entity:** Eurotex, S.L. **Principal investigator:** Nuria Calero. **Contract duration:** from 24/07/2024 to 23/07/2028. **Amount financed:** 71.811,24 €.
2. **Certification of R&D&I projects.** **Principal investigator:** Nuria Calero. **Financing entity:** EQA. **Contract duration:** 2017-2021 and 2021-2025. **Amount financed:** 27760 €.
3. **Title:** Análisis de distribuciones de tamaños de gotas de emulsiones tipo mayonesa o similares. **Financing entity:** Grupo Ybarra, S.L. **Personal contribution:** Performed experimental tasks and participated in the preparation of reports. **Principal investigator:** José Muñoz. **Contract duration:** from 18/02/2020 to 17/02/2021.
4. **Title:** Cátedra de Detergencia de la Universidad de Sevilla-Persan SA. **Financing entity:** Persan SA. **Personal contribution:** Performed experimental tasks and participated in the preparation of reports. **Principal investigator:** José Muñoz. **Contract duration:** from 01/01/2009 to 31/12/2020 **Amount financed:** 127555 €.