

CURRICULUM VITAE

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CV date	14/07/2023
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Part A. PERSONAL INFORMATION

First name	Pedro		
Family name	Partal López		
Gender (*)	male	Birth date (dd/mm/yyyy)	
Social Security, Passport, ID number			
e-mail	partal@uhu.es	URL Web	
Open Researcher and Contributor ID (ORCID) (*)	https://orcid.org/0000-0003-0141-0733		

A.1. Current position

Position	Full Professor		
Initial date	29/10/2009		
Institution	Universidad de Huelva		
Department/Center	Chemical Engineering-Pro ² TecS	ETSI	
Country	Spain	Teleph. number	
Key words	Rheology, Product Engineering, emulsion, bitumen modification, foods, polymers, bioplastics		

A.2. Previous positions (research activity interruptions, see call)

Period	Position/Institution/Country/Interruption cause
1991-1995	Research Fellow/University of Seville-González Byass

A.3. Education

PhD, Licensed, Graduate	University/Country	Year
Bachelor in Chemistry (industrial specialization)	University of Seville/Spain	1991
PhD in Chemistry	University of Seville/Spain	1995

Part B. CV SUMMARY

Professor of Chemical Engineering since 2009, at the Chemical Engineering Department of the University of Huelva. He was born in Sevilla in 1968. He received his bachelor's degree in industrial chemistry from University of Sevilla (Spain) in 1991 and completed his PhD in 1995. He became Director for Research Affairs at University of Huelva from 2000 to 2003 and Director of the R&D Centre on Food Technology of the University of Huelva, CIDERTA, in 2004. More recently, he has been Director of Chemical Engineering Department of the University of Huelva (2015-2019). His teaching and research activities are related to PhD studies on "Complex Fluid Engineering", CFD and Heat Transfer at the University of Huelva. As researcher of the Pro²TecS Centre of the University of Huelva, his work focuses on Chemical Product Design and Engineering, with specific interest in the microstructure, rheology, formulation and processing of structured chemical products (emulsions, structured food, gels, biopolymers, bioplastics, bitumen, lubricants, surfactants, etc.). He has been Principal Investigator in at least 50 research projects sponsored by public Entities and by the industry, leading different industrial projects that represent over €2 million total budget, developed with both national and international companies. Likewise, he has been principal investigator in five projects belonging to the Spanish R&D National Plan (MAT2001-0066-C02-02, MAT2004-06299-C02-02, MAT2007-61460, MAT2010-21404-C02-01 and MAT2011-

29275-C02-01); in an EU project of the FP7-PEOPLE-2013-ITN and in three industrial projects funded by Mineco-INNPACTO (IPT-2012-0316-370000) and Junta de Andalucía (AOPJA GGI3000/IDIH) and IDEA (802C1800001).

He is coauthor of more than 120 papers in published in relevant journals, coauthor of a review on Food and Emulsion Rheology, coauthor of several chapters in specialized books (WP-Woodhead Publishing y EOLSS), coeditor of a book on rheology entitled "Progress in Rheology: Theory and Applications", and author of numerous communications in International Conferences. He has been external examiner of the National Evaluation and Foresight Agency (Ministry of Science and Innovation, Spain) in Food Technology (2000-2009), The Academy of Sciences for the Developing World-TWAS (Italia) NSF-National Science Foundation (USA), University of Nottingham, etc.

General indicators of quality of scientific production

Total number of publications: 127 (WoS), publications in the first quartile (Q1): 90 (JCR)

H-index: 38 (WoS)

PhD Thesis supervised: 12

Number of six-year research periods: 4

Transfer of knowledge: 1

Date of the last six-year research period: 06/06/2018

Transfer of knowledge: 15/04/2020

Part C. RELEVANT MERITS

C.1. Publications

1. Alvarez-Barajas R.; Cuadri A.A.; Delgado-Sanchez C.; Navarro F.J.; [Partal P.](#) Non-bituminous binders formulated with bio-based and recycled materials for energy-efficient roofing applications. JOURNAL OF CLEANER PRODUCTION. 393 (2023) 136350.
JCR cat. ENGINEERING, ENVIRONMENTAL: Q1, IF: 11.1
2. Delgado-Sanchez C.; [Partal P.](#); Martín-Alfonso, M.J.; Navarro, F.J. Oil-in-Oil emulsions of stearic acid dispersed in silicone oil with enhanced energy storage capability for heat transfer fluids. SOLAR ENERGY MATERIALS AND SOLAR CELLS, 245, 111893 (2022)
JCR cat. MATERIALS SCIENCE, MULTIDISCIPLINARY: Q1, IF: 6.9
3. Delgado-Sanchez C.; Cuadri, A.A.; Navarro, F.J.; [Partal P.](#) Formulation and processing of novel non-aqueous polyethylene glycol-in-silicone oil (o/o) phase change emulsions. SOLAR ENERGY MATERIALS AND SOLAR CELLS. 221, 110898, 1-10 (2021).
JCR cat. MATERIALS SCIENCE, MULTIDISCIPLINARY: Q1, IF: 7.305
4. Delgado-Sanchez C.; [Partal P.](#); Martín-Alfonso, M.J.; Navarro, F.J. Role of crystallinity on the thermal and viscous behaviour of polyethylene glycol-in-silicone oil (o/o) phase change emulsions. JOURNAL OF INDUSTRIAL AND ENGINEERING CHEMISTRY, 103, 348-357 (2021) *JCR cat. ENGINEERING, CHEMICAL: Q1, IF: 6.760*
5. Yuliestyan, A; Gabet, T; Marsac, P; Garcia-Morales M.; [Partal, P.](#) Sustainable asphalt mixes manufactured with reclaimed asphalt and modified-lignin-stabilized bitumen emulsions. CONSTRUCTION AND BUILDING MATERIALS, 173, 662-671 (2018)
JCR cat. ENGINEERING, CIVIL: Q1, IF: 4.046
6. Felix, M.; Martinez, I.; Romero, A.; [Partal P.](#); Guerrero A. Effect of pH and nanoclay content on the morphology and physicochemical properties of soy protein/montmorillonite nanocomposite obtained by extrusion. COMPOSITES PART B-ENGINEERING, 140, 197-203 (2018) *JCR cat. ENGINEERING, MULTIDISCIPLINARY: Q1, IF: 6.864*
7. Senise, S; Carrera, V; Navarro, FJ; [Partal, P.](#) Thermomechanical and microstructural evaluation of hybrid rubberised bitumen containing a thermoplastic polymer. CONSTRUCTION AND BUILDING MATERIALS, 157, 873-884 (2017). *JCR cat. ENGINEERING, CIVIL: Q1, IF: 3.485*
8. Yuliestyan, A.; Garcia-Morales, M.; Moreno, E.; Carrera V.; [Partal P.](#) Assessment of modified lignin cationic emulsifier for bitumen emulsions used in road paving MATERIALS & DESIGN, 131, 242-251, (2017). *JCR cat. MATERIALS SCIENCE, MULTIDISCIPLINARY: Q1, IF: 4.525*

9. Yuliestyan, A; Cuadri, AA; Garcia-Morales M.; [Partal, P.](#) Influence of polymer melting point and Melt Flow Index on the performance of ethylene-vinyl-acetate modified bitumen for reduced-temperature application. *MATERIALS & DESIGN*, 96, 180-188 (2016) *JCR cat. MATERIALS SCIENCE, MULTIDISCIPLINARY: Q1, IF: 4.364*
10. Díazñez, I; Martínez, I; [Partal, P.](#) Synergistic effect of combined nanoparticles to elaborate exfoliated egg-white protein-based nanobiocomposites. *COMPOSITES PART B-ENGINEERING*, 88, 36-43 (2016) *JCR cat. ENGINEERING, MULTIDISCIPLINARY: Q1, IF: 4.727*

C.3. Research projects

Project Reference: PID2020-116905RB-I00

Title: O²emulHEAT-Development of phase change Oil-in-Oil emulsions with enhanced rheological, heat storage and heat transfer properties

Principal Investigators: Fco. Javier Navarro Domínguez y [Pedro Partal López](#)

Funding Body: Ministerio de Ciencia e Innovación **Duration:** 01/09/2021 to 30/08/202

Budget UHU: € 174.119 **Project state:** approved

Project Reference: 802C1800001 **Title:** Joint Innovation Unit (UIC-GREENASPHALT)

Participants: Universidad de Huelva y Eiffage Infraestructuras

Principal Investigator: [Pedro Partal López](#)

Funding Body: Agencia IDEA (Junta de Andalucía) **Duration:** 01/07/2020 to: 30/06/2023

Budget UHU: € 522,906.77 **Project state:** approved

Project Reference: FP7-PEOPLE-2013-ITN Project number 607524

Title: SUP&R ITN— Sustainable Pavements & Railways Initial Training Network

Principal Investigator: [Pedro Partal López](#)

Funding Body: EU Marie Curie Actions-Initial Training Networks (ITN)

Duration: from: 1/10/2013 - to 30/09/2017

Budget UHU (euros): €229,981.62 **Project state:** approved

Project Reference: IPT-2012-0316-370000

Title: Rodaduras urbanas sostenibles

Principal Investigator: [Pedro Partal López](#)

Funding Body: Ministerio de Economía y Competitividad

Duration: from: 1/01/2013 – to: 31/12/2014

Budget UHU (euros): € 81,314.40 **Project state:** approved

Project Reference: MAT2011-29275-C02-01

Title: Formulation and processing of active packaging materials based on bioplastics and antimicrobial volatile agents

Principal Investigator: [Pedro Partal López](#)

Funding Body: Ministerio de Ciencia e Innovación

Duration: from: 1/01/2012 - to: 31/12/2014

Budget (euros): €49,999.62 **Project state:** approved

C.4. Contracts, technological or transfer merits

Contract 68/83, Title: Formulation and characterization SBS-modified bitumens

Principal Investigator: [Pedro Partal López](#)

Funding Body: Dynasol Elastomeros SAU

Duration: from 01/09/2019 to: 31/08/2021

Budget (Euros): €127,050.00

Contract 68/83, Title: Research and development of new sustainable pavements with improved mechanical and acoustic performance

Principal Investigator: [Pedro Partal López](#)

Funding Body: SACYR CHILE

Duration: from: 20/04/2017 to: 30/06/2018 **Budget** (Pesos Chilenos): 30,400,000 clp (€41.000)

Contract 68/83, Title: Development of advanced Heat Transfer Fluids (HTF) applicable in parabolic trough technology

Principal Investigator: [Pedro Partal López](#)

Funding Body: Abengoa Solar New Technologies S.A.

Duration: from: 1/06/2012 to: 31/03/2015

Budget (euros): €566,099.79

Contract 68/83, Title: Integrated demonstration of industrial CO2 reduction processes through carbonation and product recovery. ReCO2Val Project

Principal Investigator: [Pedro Partal López](#)

Affiliation: UNIVERSIDAD DE HUELVA

Funding Body: Eiffage Infraestructuras, S.A.U.

Duration: from: 01/01/2014 to: 30/11/2014

Budget (euros): €54,450.00

Contract 68/83, Title: Reuse of agricultural plastic waste in the manufacture of bituminous mixture for use in roads using dry process technology (PLASTIC-ROAD)

Principal Investigator: [Pedro Partal López](#)

Affiliation: UNIVERSIDAD DE HUELVA

Funding Body: Agencia de Obra Pública de la Junta de Andalucía

Duration: from: 22/06/2012 to: 31/03/2014

Budget (euros): €406,600.00

Contract 68/83, Title: Development of advanced asphalt-based roofing membranes through reactive modification

Principal Investigator: [Pedro Partal López](#)

Affiliation: UNIVERSIDAD DE HUELVA

Funding Body: The Garland Company, Inc. (USA)

Duration: from: 01/03/2012 to: 28/02/2013 **Budget (US Dollars):** \$65,600.00

Contract 68/83, Title: Foaming technology of bitumen at low temperature

Principal Investigator: [Pedro Partal López](#)

Affiliation: UNIVERSIDAD DE HUELVA

Funding Body: Repsol S.A.

Duration: from: 01/03/2011 to: 28/02/2013

Budget (euros): €141,600.00

Patent Title: Binder composition for asphalt mixture manufacture

Inventors: Lictevout R.; Torres, J.; Hidalgo, M.E.; Álvarez-Barajas, R. ; [Partal P.](#); Navarro F. J.; Martínez Boza F. J.; Cuadri A,A,

Application Number: P202330537 **Date:** 28 June 2023

Applicants: Eiffage Infraestructuras-Universidad de Huelva

Priority Country: Spain

Patent Title Applicable material for obtaining biodegradable films for bags by extrusion and blow moulding, and method of preparation

Inventors: D. Gómez-Martínez; M. García-Morales, [P. Partal](#); C. Gallegos

Application Number: ES2352291 **Date:** 17/02/2011

Applicant: Plásticos Alhambra, S.L.

Priority Country: Spain

Inventors:S. GIL, F.J. Martínez-Boza, F.J. Navarro, [P. Partal](#), et al.

Title: Device for measuring creep properties in solid-fluid compaction processes

Application Number: ES239501 **Date:** 24-05-2011

Applicant: DITECPESA, S.A. and Universidad de Huelva

Priority Country: Spain

Patent Title: Process for continuous preparation of submicronic bitumen emulsions

Inventors: A. Páez, E. Moreno, E. Romero; F.J. Martínez-Boza; [P. Partal](#); F.J. Navarro, C. Gallegos, Bardesi, A

Application Number: EP2213704

Date: 28/01/2010

Applicant: Repsol YPF S.A.

Priority Country: Spain