



## CURRICULUM VITAE (CVA)

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

### Part A. PERSONAL INFORMATION

CV date 09/06/2023

First name	José Manuel		
Family name	Herrero Martínez		
Gender (*)	Male	Birth date (dd/mm/yyyy)	
Social Security, Passport, ID number			
e-mail	<a href="mailto:jmherrer@uv.es">jmherrer@uv.es</a>	URL Web: <a href="http://www.clecem.es">www.clecem.es</a>	
Open Researcher and Contributor ID (ORCID) (*)	0000-0002-8745-3795		

(\*) Mandatory

#### A.1. Current position

Position	Full profesor		
Initial date	04/09/2018		
Institution	University of Valencia		
Department/Center	Department of Analytical Chemistry	Faculty of Chemistry	
Country	Burjassot, Valencia, Spain	Teleph. number	963544062
Key words	Liquid chromatography, capillary (electro)separation, mass spectrometry, porous materials, sample treatment, 3D printing		

#### A.2. Previous positions (research activity interruptions, art. 14.2.b))

Period	Position/Institution/Country/Interruption cause
Oct. 2001-Feb. 2004	Assistant professor/University of Barcelona/Contract change
Feb. 2004-Dec. 2005	Lecturer/University of Barcelona/Contract change (CC)
Jan. 2006-Dec. 2006	Ramón y Cajal researcher/University of Valencia/CC
Dec. 2006-Oct. 2009	Contracted lecturer/Univ. of Valencia/CC
Oct. 2009-Sept. 2018	Associate professor/Univ. of Valencia/CC

#### A.3. Education

PhD, Licensed, Graduate	University/Country	Year
Chemistry degree	University of Valencia	1996
PhD in Chemistry	University of Valencia	2000

### Part B. CV SUMMARY (max. 5000 characters, including spaces)

Jose Manuel Herrero-Martínez (Sagunto, Spain, 1973), Chemistry Degree (Univ. of Valencia, Spain, 1996) and PhD in Chemistry (Univ. of Valencia, 2000). Assistant Professor (2001-2005) at the Dept. of Analytical Chemistry (Univ. of Barcelona, Spain), post-doctoral researcher (2003-2004) at the Dept. of Chemical Engineering (University of Amsterdam, The Netherlands), Contracted researcher/lecturer (2006-2009) and Associate Professor (2009-2018) and Full Professor (2018-) at the Dept. of Analytical Chemistry (Univ. of Valencia). His research interests comprise a wide spectrum of analytical techniques and applications including: capillary (electro)separation techniques (1994-), food authentication, control and safety (2004-), surfactant analysis and quality control of cleaning products including evaluation of their environmental impact (1998-), HPLC (1992-), HPLC-MS and CZE-MS (2004-) and

development of new stationary phases for separation techniques (2005-) and smart materials for sample treatment (2015-). He has published around 165 research articles in international indexed journals (most of them located in the first quartile), and 5 book chapters (3233 citations, h-index 29, Scopus, 23/11/2021). He has presented more than 270 communications at numerous international and national scientific meetings under different formats. He has participated in regional, national and international R&D projects (16), and he has been in three the principal researcher. Also, he has participated in collaboration agreements (more than 20) with companies belong to different fields (detergency, agri-food area, etc), contributing significantly to the technology transfer. He has supervised 9 Doctoral Thesis with Excellent Cum Laude (two with Doctorate award) and one PhD thesis is currently under execution. Also, he has supervised numerous final degree and master's degree projects (40 and 35, respectively). Concerning assessment activities, he is evaluator of research projects from several research funding agencies such as National Evaluation and Prospective Agency (ANEP), Catalan University Quality Assurance Agency (AQU) and National Agency of Scientific and Technological Promotion (ANPCYT, Argentina). He has collaborated with research groups of several national and foreign universities, and currently collaborates with the University of Balearic Islands, University of Córdoba (Spain), Charles University (Czech Republic) and National University La Plata (Argentina). Also, he has member of the organizing committee of XXI meeting of Spanish Society of Analytical Chemistry (SEQA) 2017 and member of the scientific committee of the international congresses Latin-American symposium on biotechnology, biomedical, biopharmaceutical, and industrial applications of capillary electrophoresis and microchip technology 2019 and Advances in Extraction Techniques 2021. He is a member of the editorial boards of the journals "Molecules" and "Separations". Also, he was guest editor of the "Molecules" journal for the special issues "Analysis of peptides and proteins by electrophoretic techniques" in 2019 and "Advances in molecular recognition materials" in 2020. Also, he is member of the committee of EuChemS-DAC Sample Preparation Study Group and Network. Concerning management responsibilities, he has been Secretary of the Dept. Analytical Chemistry (2011-2014). He has recognized four active six-year research periods ("sexenios") by National Committee for the Assessment of the Research Action (CNEAI) from 1997 to 2020.

## **Part C. RELEVANT MERITS** (*sorted by typology*)

### **C.1. Publications** (*see instructions*)

1. C. Negro, H. Martínez Pérez-Cejuela, E.F. Simó-Alfonso, J.M. Herrero-Martínez, R. Bruno, D. Armentano, J. Ferrando-Soria, E. Pardo. "Highly efficient removal of neonicotinoid insecticides by thioether-based (multivariate) metal-organic frameworks". ACS Applied Materials and Interfaces 13 (2021) 28424-28432. <https://doi.org/10.1021/acsami.1c08833>.
2. M. Vergara-Barberán, M.J. Lerma-García, A. Moga, E.J. Carrasco-Correa, H. Martínez-Pérez-Cejuela, M. Beneito-Cambra, E.F. Simó-Alfonso, J.M. Herrero-Martínez. "Recent advances in aptamer-based miniaturized extraction approaches in food analysis". Trends in Analytical Chemistry (TrAC) 138 (2021) 116230. <https://doi.org/10.1016/j.trac.2021.116230>.
3. S. Torres-Cartas, S. Meseguer-Lloret, C. Gómez-Benito, M. Catalá-Icardo, E.F. Simó-Alfonso, J.M. Herrero-Martínez. "Preparation of monolithic polymer-magnetite nanoparticle composites into poly(ethylene-co-tetrafluoroethylene) tubes for uses in micro-bore HPLC separation and extraction of phosphorylated compounds". Talanta 224 (2021) 121806. <https://doi.org/10.1016/j.talanta.2020.121806>.
4. A. Sorribes-Soriano, S. Armenta, F.A. Esteve-Turrillas, J.M. Herrero-Martínez. "Tuning the selectivity of molecularly imprinted polymer extraction of arylcyclohexylamines: From class-selective to specific". Analytica Chimica Acta 1124 (2020) 94-103. <https://doi.org/10.1016/j.aca.2020.05.035>.
5. E.J. Carrasco-Correa, D.J. Cocovi-Solberg, J.M. Herrero-Martínez, E.F. Simó-Alfonso, M. Miró. "3D printed fluidic platform with in-situ covalently immobilized polymer monolithic column for automatic solid-phase extraction". Analytica Chimica Acta 1111 (2020) 40-48. <https://doi.org/10.1016/j.aca.2020.03.033>.
6. H. Martínez-Pérez-Cejuela, M. Guiñez, E.F. Simó-Alfonso, P. Amorós, J. El Haskouri, J.M. Herrero-Martínez. "In situ growth of metal-organic framework HKUST-1 in an organic polymer as sorbent for nitrated and oxygenated polycyclic aromatic hydrocarbon in environmental

- water samples prior to quantitation by HPLC-UV". *Microchimica Acta* 187 (2020) 301. <https://doi.org/10.1007/s00604-020-04265-z>.
7. M. Vergara-Barberán, E.J. Carrasco-Correa, M.J. Lerma-García, E.F. Simó-Alfonso, J.M. Herrero-Martínez. "Current trends in affinity-based monoliths in microextraction approaches: A review". *Analytica Chimica Acta* 1084 (2019) 1-20. <https://doi.org/10.1016/j.aca.2019.07.020>.
  8. E. Pellicer-Castell, C. Belenguer-Sapiña, P. Amorós, J. El Haskouri, J.M. Herrero-Martínez, A. Mauri-Aucejo. "Study of silica-structured materials as sorbents for organophosphorus pesticides determination in environmental water samples". *Talanta* 189 (2018) 560-567. <https://doi.org/10.1016/j.talanta.2018.07.044>.
  9. A. Shahat, S.A. Elsalam, J.M. Herrero-Martínez, E.F. Simó-Alfonso, G. Ramis-Ramos. "Optical recognition and removal of Hg(II) using a new self-chemosensor based on a modified amino-functionalized Al-MOF". *Sensors and Actuators B: Chemical* 253 (2017) 164-172. <https://doi.org/10.1016/j.snb.2017.06.125>.
  10. M. Vergara-Barberán, M.J. Lerma-García, E.F. Simó-Alfonso, J.M. Herrero-Martínez. "Polymeric sorbents modified with gold and silver nanoparticles for solid-phase extraction of proteins followed by MALDI-TOF analysis". *Microchimica Acta* 184 (2017) 1683-1690. <https://doi.org/10.1007/s00604-017-2168-5>.

## C.2. Congress

1. *Oral communication*. H. Martínez-Pérez-Cejuela, S. Zatrochová, D. Šatinský, M. Catalá-Icardo, E.F. Simó-Alfonso, J.M. Herrero-Martínez. Development of hybrid monoliths incorporating metal-organic frameworks for stir bar sorptive extraction coupled with HPLC for determination of estrogen endocrine disruptors in environmental and biological samples (ref. OEu\_02). 23<sup>rd</sup> International Symposium on Advances in Extraction Technologies (ExTech 2021), 30 June- 2 July 2021.
2. *Oral communication*. M. Vergara-Barberán, A. Moga, E.F. Simó-Alfonso, F. Benavente, J.M. Herrero-Martínez. Development of an aptamer functionalized polymer monolith for the selective detection of concanavalin A by on-line solid-phase extraction capillary electrophoresis (ref. OP-4). 25<sup>th</sup> Latin-American symposium on biotechnology, biomedical, biopharmaceutical, and industrial applications of capillary electrophoresis and microchip technology (LACE 2019). 29 September-2 October, 2019. Alcalá de Henares (Spain).
3. *Oral communication*. H. Martínez Pérez-Cejuela, María Guiñez, Ernesto Simó-Alfonso, J.M. Herrero-Martínez. In situ growth of metal-organic framework HKUST-1 in a polymer monolith as efficient sorbent for polycyclic aromatic hydrocarbon derivatives (ref. PMU-O04). XXII Meeting of SEQA. July 18-19, 2019. Valladolid (Spain).
4. *Oral communication*. H. Martínez Pérez-Cejuela, M. Mon, J. Ferrando-Soria, E. Pardo, E.F. Simó-Alfonso, J.M. Herrero-Martínez. Sorbents based on bio-metal-organic frameworks for (micro)solid-phase extraction of hydrophilic vitamins in fruit juices and energy drinks (ref. OC-29). 48<sup>th</sup> International Symposium on High-Performance Liquid Phase Separations and Related Techniques (HPLC2019), June 16-20, 2019. Milan (Italy).
5. *Oral communication*. O. Mompó-Roselló, M. Vergara-Barberán, E.F. Simó-Alfonso, J.M. Herrero-Martínez. Preparation and characterization of polymeric monoliths modified with gold nanoparticles for their use in pipette-tip extraction of proteins (ref. O\_26). 19<sup>th</sup> International Symposium on Advances in Extraction Technologies (EXTECH 2017). June 27-30, 2017. Santiago de Compostela (Spain).
6. *Oral communication*. E.J. Carrasco-Correa, V. Dalgo-Flores, G. Ramis-Ramos, E.F. Simó-Alfonso, J.M. Herrero-Martínez. Influence of an oscillating magnetic field on the separation performance of hybrid monolithic stationary phases for HPLC (ref. FUN10-P01-We). 45<sup>th</sup> International Symposium on High-Performance Liquid Phase Separations and Related Techniques (HPLC'2017). June 18-22, 2017. Prague (Czech Republic).
7. *Oral communication*. M. Catalá-Icardo, S. Torres-Cartas, A. Calabuig-Belda, C. Gómez-Benito, E.J. Carrasco-Correa, E.F. Simó-Alfonso, G. Ramis-Ramos, J.M. Herrero-Martínez. Preparation of organic monolithic columns in polytetrafluoroethylene tubes for reversed-phase liquid chromatography (ref. CTM2-009-002). 31<sup>st</sup> International Symposium on Chromatography (ISC'2016). 28 August-1 September 2016. Cork (Ireland).
8. *Oral communication*. J.M. Herrero-Martínez, E.J. Carrasco-Correa, M.J. Lerma-García, E.F. Simó-Alfonso, G. Ramis-Ramos. Monolithic columns with a high coverage of silver

nanoparticles for nano-LC separation of small molecules and proteins. 42<sup>nd</sup> International Symposium on High-Performance Liquid Phase Separations and Related Techniques (HPLC'2015) (ref. FUN-TU-0-17:20). June 20-25, 2015. Geneve (Switzerland).

9. *Invited lecture*. J.M. Herrero-Martínez. Desarrollo y aplicación de nuevos materiales monolíticos para técnicas de separación miniaturizadas (ref. SP02). 8<sup>o</sup> Congreso Argentino de Química Analítica. November 3-6, 2015. La Plata (Argentina).

10. *Invited lecture*. E.J. Carrasco-Correa, J.M. Herrero-Martínez, G. Ramis-Ramos. Analysis of biological samples by capillary- and nano-liquid chromatography with synchronized gradient elution (ref. OR18). 30th International Symposium on Chromatography (ISC 2014) September 14-18, 2014. Salzburg (Austria).

### C.3. Research projects

1. RTI2018-095536-B-I00. Desarrollo de materiales poliméricos funcionales en plataformas flexibles para aplicaciones medioambientales y toxicológicas. Ministerio de Ciencia, Innovación y Universidades. *Responsible researchers*: J.M. Herrero Martínez & E.F. Simó Alfonso. *Dates*: 01/01/2019-30/06/2022. 92.444 €.
2. RED2018-102522. Red Nacional para la innovación en las técnicas de tratamiento de muestras miniaturizadas. Ministerio de Ciencia, Innovación y Universidades. *Responsible researcher*: M. Cárdenas (Univ. Córdoba). *Date*: 01/01/2020-31/10/2022. 20.000 €. *Type of participation*: Researcher.
3. PROMETEO/2016/145. Sistemas de separación basados en nuevos polímeros porosos y composites polímero-nanopartículas con aplicaciones industriales y medioambientales. *Responsible researchers*: G. Ramis Ramos & E.F. Simó Alfonso. Generalitat Valenciana, Programa de Investigación de Excelencia PROMETEO. *Dates*: 01/01/2016 to 31/12/2019. 182.000 €. *Type of participation*: Researcher.
4. RTC-2016-5621-2. La nanoagricultura, un nuevo reto. Desarrollo de nanofertilizantes de alto rendimiento para el aumento del vigor en cultivos y calidad del fruto. Secretaria de Estado de Investigación, Plan Nacional de I+D+i Retos-Colaboración. *Responsible researcher*: E. Simó Alfonso. *Dates*: 01/01/2016 to 31/12/2019. 574.583 €. *Type of participation*: Researcher.
5. CTQ2014-52765-R. Desarrollo de fases estacionarias monolíticas híbridas polímero-nanopartículas y sus aplicaciones en separación. Secretaria de Estado de Investigación, Plan Nacional de I+D+i. *Responsible researchers*: G. Ramis Ramos & J.M. Herrero Martínez. *Dates*: 01/01/2015 to 31/12/2017. 84.000 €.
6. CTQ2010-15335/BQU. Desarrollo y aplicaciones de fases estacionarias monolíticas modificadas con nanopartículas. Secretaria de Estado de Investigación, Plan Nacional de I+D+i. *Responsible researcher*: G. Ramis Ramos. *Dates*: 01/01/2011 to 12/2013. 70.000 €. *Type of participation*: Researcher.

### C.4. Contracts, technological or transfer merits

1. Desarrollo de un método de concentración de sustancias húmicas y fúlvicas en agua bruta. EMIVASA. *Responsible researcher*: E.F. Simó Alfonso. *Dates*: September 2020-September 2022. 27.000 €.
2. Desarrollo de nuevos formulados, limpiadores sostenibles; estudio de mercado. Químicas Oro, S.A. *Responsible researcher*: E.F. Simó Alfonso. *Dates*: May 2016-April 2022. 108.000 €.
3. Desarrollo de un método de eliminación de los restos de desinfectantes presentes en las aguas de lavado de depósitos. CLEANITY, S.L. Center for the Development of Industrial Technology (CDTI) project. *Responsible researcher*: E.F. Simó Alfonso. *Dates*: November 2020-October 2021. 15.000 €.
4. Desarrollo de nuevos productos detergentes y de limpieza, estudios de mercado y procedimientos de análisis y ensayo empleando técnicas rápidas de alta resolución. Químicas Oro, S.A. *Responsible researcher*: E.F. Simó Alfonso. *Dates*: May 2006-April 2016. 288.000 €.
5. Subcontrato Licitación OC/EFSA/DCM/2012/04. Desarrollo de métodos de electroforesis capilar para la determinación de aditivos en alimentos. AINIA (Asociación de Investigación de la Industria Alimentaria). *Responsible researcher*: G. Ramis Ramos. *Dates*: November 2012-November 2013. 25.000 €.