

CV Date

02/12/2021

Part A. PERSONAL INFORMATION

First Name *	Pilar		
Family Name *	Bermejo Barrera		
Sex *	Female	Date of Birth *	06/02/1956
ID number Social Security, Passport *	33222835W	Phone Number *	(0034) 881 814 266
URL Web			
Email Address	pilar.bermejo@usc.es		
Researcher's identification number	Open Researcher and Contributor ID (ORCID) *	0000-0001-5864-6144	
	Researcher ID	G-9646-2017	
	Scopus Author ID	55663825800	

* Mandatory

A.1. Current position

Job Title	Decana de la Facultad de Química		
Starting date	2014		
Institution	Universidad de Santiago de Compostela		
Department / Centre	Química Analítica / Facultad de Química		
Country		Phone Number	
Keywords	Speciation; Atomic spectrometry; Nanoparticles; Spectroscopy		

A.3. Education

Degree/Master/PhD	University / Country	Year
Programa Oficial de Doctorado en Química	Universidad de Santiago de Compostela	1981
Licenciado en Ciencias Químicas Modalidad Química Analítica	Universidad de Santiago de Compostela	1978

A.4. General quality indicators of scientific production

Research recognised periods (sexenios): 6 (01/01/2010 - 31/12/2015)

PhD: 37

Publications : 383

Papers: 298

Chapters in International Books : 28

Total Citation: 6313

h index: 42

Part B. CV SUMMARY

Professor of Analytical Chemistry from 1991 in the Analytical Chemistry, Nutrition and Bromatology Department in the Faculty of Chemistry of the University of Santiago de Compostela (USC). In the past Director of this Department, and at the present Dean of the Faculty of Chemistry. She had the President of the Spanish Conference of Chemistry Deans. Head of the Trace Elements, Spectroscopy and Speciation Group (GETEE) since 1990, which main investigations are to develop method to perform Speciation and Bioavailability studies on trace elements in environmental, biological and clinical materials; Metalomic and Metaloproteomic studies, and in the last years the development of analytical platforms to study metal nanoparticles. Other important area is the development of new methods for drug abuse substances. She published 340 research papers, 28 book chapters in international books, and supervised 39 PhD. Lider of 30 research projects and different contacts

with private companies and administrations. Teaching experience in University of Ioannina (Grecia), Universidad de Tubarao and Universidad de Salvador de Bahía (Brasil), Universidad Católica de Valparaíso (Chile), and Universidad de La Habana (Cuba). Member of evaluation committees of ANEP, ANECA, other Agencies such as Agencia Andaluza de Evaluación and ACSCYL and the research committees of MICINN. External expert in Atomic Spectrometry Techniques for ENAC. Referee of more than 30 journals and member of the Editorial Board of: Journal of Trace Elements in Medicine and Biology, Environmental Nanotechnology, Monitoring and Management and Revista de Laboratorio Clínico. Chairperson of the Conferences "XX Reunión de la Sociedad Española de Química Analítica" 2015, and 3rd International FESTEM Symposium on "Recent advances in trace element research: from experiments to nutritional and clinical applications in humans" 2007. Francisco Alvarez Prize of the Society of Applied Spectroscopy in 2019. Member of the ECTN (European Chemistry Thematic Network), FESTEM (Federation of European Societies on Trace Elements and Minerals), Fellow Member of the Royal Chemistry Society RSC, Member of the American Chemical Society ACS, Member of Real Sociedad Española de Química RSEQ, Spanish Analytical Chemistry Society SEQA, Applied Spectroscopy Society SEA, Spanish Society of Laboratory Medicine SEQCML.

Part C. RELEVANT ACCOMPLISHMENTS

C.1. Most important publications in national or international peer-reviewed journals, books and conferences

AC: corresponding author. (n° x / n° y): position / total authors. If applicable, indicate the number of citations

- 1 **Scientific paper**. 2021. AF4-UV-ICP-MS for detection and quantification of silver nanoparticles in seafood after enzymatic hydrolysis Talanta. Elsevier. 232-1, pp.122504.
- 2 **Scientific paper**. 2021. Trace elements in dried blood spots as potential discriminating features for metabolic disorder diagnosis in newborns Metallomics. Oxford University. 13-5.
- 3 **Scientific paper**. 2021. In vitro assessment of major and trace element bioaccessibility in tea samples Talanta. Elsevier. 255-1, pp.122083.
- 4 **Scientific paper**. 2021. Biopersistence rate of metallic nanoparticles in the gastro-intestinal human tract (stage0 of the EFSA guidance for nanomaterials risk assessment) Food Chemistry. 360, pp.130002.
- 5 **Scientific paper**. 2020. Development of a sensitive method for the analysis of four phthalates in tea samples: Tea bag contribution to the total amount in tea infusion
- 6 **Scientific paper**. 2020. Size characterization and quantification of titanium dioxide nano- and microparticles-based products by Asymmetrical Flow Field-Flow Fractionation coupled to Dynamic Light Scattering and Inductively Coupled Plasma Mass Spectrometry Analytica Chimica Acta. Elsevier. 1122, pp.20-30.
- 7 **Scientific paper**. 2020. Ionic imprinted polymer solid-phase extraction for inorganic arsenic selective pre-concentration in fishery products before high-performance liquid chromatography – inductively coupled plasma-mass spectrometry speciation Journal of Chromatography A. 1619, pp.460973.
- 8 **Scientific paper**. 2020. Cloud point extraction and ICP-MS for titanium speciation in water samples Microchemical Journal. Elsevier. 152, pp.106264-106270.
- 9 **Scientific paper**. 2019. Silver nanoparticles assessment in moisturizing creams by ultrasound assisted extraction followed by sp-ICP-MS Talanta. Elsevier. 197, pp.530-538.
- 10 **Scientific paper**. 2019. Enzymatic hydrolysis as a sample pre-treatment for titanium dioxide nanoparticles assessment in surimi (crab sticks) by single particle ICP-MS Talanta. Elsevier. 195, pp.23-32.
- 11 **Scientific paper**. 2019. Possibilities of single particle ICP-MS for determining/characterizing titanium dioxide and silver nanoparticles in human urine Journal of Trace Elements in Medicine and Biology. Elsevier. 54, pp.55-61.

- 12 **Scientific paper.** Chantada-Vázquez, M.P.; de-Becerra-Sánchez, C.; Fernández-del-Río, A.; Sánchez-González, J.; Bermejo, A.M.; Bermejo-Barrera, P.; Moreda-Piñeiro, A.2018. Development and application of molecularly imprinted polymer – Mn-doped ZnS quantum dot fluorescent optosensing for cocaine screening in oral fluid and serum Talanta. Elsevier B.V.. 181, pp.232-238.
- 13 **Scientific paper.** Chantada-Vázquez, M.P.; Moreda-Piñeiro, J.; Cantarero-Roldán, A.; Bermejo-Barrera, P.; Moreda-Piñeiro, A.2018. Development of dried serum spot sampling techniques for the assessment of trace elements in serum samples by LA-ICP-MS Talanta. Elsevier B.V.. 186, pp.169-175.
- 14 2021. Caco-2 in vitro model of human gastrointestinal tract for studying the absorption of titanium dioxide and silver nanoparticles from seafood Talanta. 233, pp.122494.
- 15 2021. Mercury speciation in edible seaweed by liquid chromatography-Inductively coupled plasma mass spectrometry after ionic imprinted polymer-solid phase extraction Talanta. 224, pp.121841.

C.3. Research projects and contracts

- 1 **Project.** Innovaciones en Técnicas Híbridas Nanométricas para caracterizar Nanopartículas en su ciclo de vida y para evaluar su riesgo. (Universidade de Santiago de Compostela). 28/08/2019-31/12/2021. 120.879 €.
- 2 **Project.** Impacto de nanopartículas metálicas en ecosistemas acuáticos y en productos de acuicultura: Desarrollo de métodos para su detección, INTERREG, POCTEP. (Universidad de Santiago de Compostela). 01/04/2018-31/12/2021. 243.378,39 €.
- 3 **Project.** Grupo de Referencia Competitivo, Xunta de Galicia. Bermejo Barrera IP. (Universidad de Santiago de Compostela). 01/01/2019-20/11/2021. 200.000 €.
- 4 **Project.** Risk assessment and mitigation of the presence of engineered NANO materials in Atlantic aquaCULTURE, INTERREG, Atlantic Area. (Universidad de Santiago de Compostela). 01/05/2019-01/05/2021. 209.999,66 €.
- 5 **Project.** Plataformas nanometrologicas analíticas para la detección, caracterización y cuantificación de nanomateriales inorgánicos en muestras complejas- RETOS 2015. Ministerio de Economía y Competitividad. Pilar Bermejo Barrera. 01/01/2016-31/12/2018. 111.320 €.
- 6 **Project.** PRIDE - Profiling Relation In Drug trafficking in Europe. Directorate-General Justice European Commission. Pilar Bermejo Barrera. 01/12/2015-30/11/2017. 133.549,7 €.
- 7 **Project.** Consolidación y estructuración. Grupos de Referencia competitivos (GRC2014/016). XUNTA DE GALICIA. Pilar Bermejo Barrera. 24/06/2014-30/11/2017. 280.000 €.
- 8 **Project.** Innovaciones en Especiación Funcional-Química en Nanotecnología Medioambiental (nanometrología). Caracterización de nanopartículas artificiales y materia orgánica natural. Ministerio de Economía y Competitividad. Pilar Bermejo Barrera. 01/01/2013-31/12/2015. 101.790 €.
- 9 **Project.** Tracking Drug Trafficking (TDT). Directorate-General Justice European Commission. Pilar Bermejo Barrera. 01/01/2012-30/11/2015. 156.034,63 €.
- 10 **Project.** Desarrollo de polímeros de impronta molecular para su aplicación en el campo alimentario. Ministerio de Ciencia e Innovación. Pilar Bermejo Barrera. 22/06/2010-31/12/2013. 81.807,83 €.
- 11 **Project.** Uso de nanopartículas multifuncionales para la simplificación de métodos analíticos. Consellería de Economía e Industria; XUNTA DE GALICIA. Pilar Bermejo Barrera. 10/08/2010-30/09/2013. 81.057 €.
- 12 **Project.** Especiación Multielemental, Química y Funcional de Elementos Traza en materia orgánica del agua de mar. Ministerio de Ciencia e Innovación (Proyecto Coordinado). Pilar Bermejo Barrera. 01/01/2010-31/12/2012. 127.050 €.
- 13 **Project.** Estudio das técnicas de xeneración de vapor na Espectroscopía Atómica. Consellería de Innovación e Industria; XUNTA DE GALICIA. Pilar Bermejo Barrera. 30/10/2007-31/10/2010. 95.445 €.
- 14 **Project.** Biodisponibilidad y especiación de arsénico y yodo en algas marinas. Ministerio de Educación y Ciencia Universidad de Santiago de Compostela. Bermejo Barrera. 01/10/2006-30/09/2009. 84.700 €.

- 15 Project.** Análise de Especiación de Antimonio e Arsénico en auga de mar, sedimentos mariños e moluscos. XUNTA DE GALICIA. Pilar Bermejo Barrera. 04/06/2004-03/06/2006. 20.600 €.
- 16 Contract.** Transferencia trófica e especiación do chumbo acumulado en dosina exoleta; peculiaridades fronte a outros bivalvos de relevancia para o consumo humano (2016-CP124) Centro de Investigacións Mariñas. Pilar Bermejo Barrera. 01/10/2016-01/04/2017. 9.075 €.
- 17 Contract.** Consultoría e formación sobre a técnica ICP-MS e sobre outras técnicas de espectroscopía atómica (2014-CE015) PerkinElmer España, S.L.. Pilar Bermejo Barrera. 16/12/2013-31/12/2014. 7.200 €.
- 18 Contract.** Asesoramento en técnicas electroquímicas para o desenvolvemento de sensores de calidade de augas (2013/CE080) Indrops. Pilar Bermejo Barrera. 18/03/2013-01/09/2013. 4.200 €.
- 19 Contract.** Control de la concentración de metilmercurio en productos pesqueros para el consumo humano mediante el empleo de nanopartículas derivatizadas Fundación Mapfre. Pilar Bermejo Barrera. 08/03/2012-08/03/2013. 15.000 €.
- 20 Contract.** Characterization Measurements of ERM-CA615, trace elements in groundwater Commission of the European Communities; Institute for Reference Materials and Measurements; Joint Research Centre. Pilar Bermejo Barrera. 05/05/2009-30/12/2009. 2.835 €.