



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

First name	Jesús Damián		
Family name	De la Rosa Díaz		
Gender (*)	Male	Birth date (dd/mm/yyyy)	
ID number			
e-mail	jesus@uhu.es	URL Web: http://uhuaerosol.blogspot.com/es/	
Open Researcher and Contributor ID (ORCID)	http://orcid.org/0000-0001-6644-8754		

A.1. Current position

Position	Full Professor of Petrology and Geochemistry		
Initial date	October 2016		
Institution	University of Huelva		
Department/Center	Earth Science	Center for Research in Sustainable Chemistry (CIQSO)	
Country	Spain	Teleph. number	+34 959 219821
Key words	Geochemistry, Air Quality, Aerosols		

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

Period	Position/Institution/Country/Interruption cause
Jan 1989 – Dec 1992	Predoc student (FPI program), Univ Seville
May 1993 – Jul 1996	Prof Associated, Univ Seville and Huelva
Jul 1996 – Oct 2016	Lecturer of Petrology and Geochemistry, Univ Huelva
Oct 2016 – today	Full Professor of Petrology and Geochemistry, Univ Huelva

A.3. Education

PhD, Licensed, Graduate	University/Country	Year
PhD	University of Seville, Spain	1992
Licensed	University of Seville, Spain	1988

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

The main line of research concerns the geochemistry of atmospheric particulate matter (PM) in the context of Andalusia and in comparison, with the national and international contexts. All his studies are directed towards deepening our knowledge of the amounts contributed by both natural and anthropogenic sources, the impact on health of industrial and traffic emissions, and the high-resolution modelling of airborne metals.

To date, his scientific productivity encompasses some 137 papers in JCR-indexed journals with a total of 6.889 citations. His h-index is 46. Nevertheless, the chief impact of his work can be measured in the degree to which they have contributed towards the protection of the environment, in that they fill the gap between pure science and its application to society. The major milestones of this work are summarized below and most under collaborative work of the Associate Unit CSIC-UHU "Atmospheric Pollution".

Since 1999, we participate in the **Plan for Environmental Quality of Huelva**. Our function was to carry out scientific studies at the diagnostic stage and to propose measures to improve and monitor the situation to reduce the negative impact on the town of industrial emission to the air. Arsenic constituted the main anomaly of the air in Huelva compared to other towns in Spain and Europe. This led our group to initiate the monitoring of the total chemical composition of the air in Huelva, which it has continued to do uninterruptedly to today.



Of great importance to the study of airborne As was the application of high resolution meteorological models, which made 24-hour forecasts of concentrations. Forecast modelling of metals is developed under the **Agreement of ARL-NOAA and UHU**.

Since 2003, in response to the **Andalusian Regional Government's requirements**, similar studies into sources of PM have been carried out in the Bay of Algeciras and Bailén and rest of Andalusia, creating maps of air pollution for 65 inorganic components around 21 locations. These studies represent baseline information for the regional and national governments to determine the most sensitive areas and create the Strategy of Air Quality of Andalusia presented in the Parliament in 2016. Actually, and for 3 years, we are assessing this Strategy. In 2018, the Associate Unit received the **Prize of the Andalusia Government in Huelva** for the innovation and environment implication.

The development of analytical techniques for the detection of the particles most hazardous to health (**ultrafine particles**, UFPs) also played an important role in the study of air quality in Western Andalusia and its comparison with other areas in Europe. In this instance, in addition to sources from traffic, it was found that industry was also responsible for a high proportion of this kind of PM. In comparison with studies from Italy, England and other areas of Spain, Huelva was found to have the highest concentrations of UFPs in Europe, because of industrial emission and the high degree of photochemical activity in the area. Today, we are ending the PULFIND project (State Research Agency), where UFP and metals anomalies continue in time.

Regarding to environmental protection in mining areas, since 2009 the group has monitored 65 inorganic components in the air around the **Iberian Pyrite Belt** in the southwest of the Iberian Peninsula. While the mines were inactive, the air quality was comparable to other areas of ecological interest such as the Doñana National Park. However, since the recommencement of mining operations in Riotinto in 2015, serious instances of air pollution have occurred, above all in the mining towns around the main mines in operation.

Since 2014, according to the register of air pollution in the town of Huelva compiled by the research group, the evaporation of the leachates in **phosphogypsum** ponds produce HF vapor, which impacts the town. In order to avoid further environmental damage to the town and protect the future of Huelva, in 2016 a Basic Engineering Project was presented to both the Regional and National Governments with the aim of closing down the area where the waste is dumped. These results formed part of Project for the State Research Plan.

The **supervision of PhD students** (5 and one in progress) and **national and international postdoc** (>10) it is a great responsibility, ensuring young researchers for the future.

His participation in disseminating scientific knowledge should also be mentioned. Since 2012, weekly updates of the air quality in Andalusia have been made available on the blog <http://uhuaerosol.blogspot.com.es>. He has participated in multiple activities for the **training of technicians and young researchers**, talks about his work to associations, companies, and public administrations. Daily and weekly, inform on air quality of Huelva province and Andalusia through social media (twitter, blogspot) and radio (Cadena SER-Huelva).

He has participated in several research management responsibilities, highlighting vice chancellor of Research and Transfer of UHU, CNEAI-ANECA (productivity complement) and at present in the State Research Agency as coordinator of Climate and Atmosphere Commission.

Part C. RELEVANT MERITS

C.1. Publications

- 1 Pérez-Vizcaíno P, Sánchez de la Campa AM, Sánchez-Rodas D, **de la Rosa JD** (2025) Application of a near real-time technique for the assessment of atmospheric arsenic and metals emissions from a copper smelter in an urban area of SW Europe. **Environmental Pollution** 125602. <https://doi.org/10.1016/j.envpol.2024.125602>
- 2 Boente C, A. Zafra-Pérez, J.C. Fernández-Caliani, A. Sánchez de la Campa, D. Sánchez-Rodas, J.D. **de la Rosa JD** (2023) Source apportionment of potentially toxic PM10 near a vast metallic ore mine and health risk assessment for residents exposed. **Atmospheric Environment** 301: 119696. <https://doi.org/10.1016/j.atmosenv.2023.119696>



- 3 Millán-Martínez M, Sánchez de la Campa A.M., Sánchez-Rodas D, **de la Rosa J** (2022) Impact of the SARS-CoV-2 lockdown measures in Southern Spain on PM10 trace elements concentrations. **Chemosphere** 303: 13485 <https://doi.org/10.1016/j.chemosphere.2022.134853>
- 4 Millán-Martínez M, Sánchez-Rodas D, Sánchez de la Campa A.M., Alastuey A, Querol Q, **de la Rosa J** (2021) Source contribution and origin of PM10 and arsenic in a complex industrial region (Huelva, SW Spain). **Environmental Pollution** 274: 116268 <https://doi.org/10.1016/j.envpol.2020.116268>
- 5 Lieberman NR, Izquierdo M, Córdoba P, Moreno N, Querol X, Sánchez de la Campa AM, Font O, Cohen H, Knop Y, Torres-Sanchez R, Sánchez-Rodas D, Muñoz-Quiros C, **de la Rosa JD** (2020) The geochemical evolution of brines from phosphogypsum deposits in Huelva (Spain) and its environmental implications. **Science of The Total Environment** 700: 134444. DOI: 10.1016/j.scitotenv.2019.134444
- 6 Torres-Sánchez R, Sánchez-Rodas D, Sánchez de la Campa AM, Kandler K, Schneiders K, **de la Rosa JD** (2019) Geochemistry and source contribution of fugitive phosphogypsum particles in Huelva, (SW Spain). **Atmospheric Research** 230: 104650. DOI: 10.1016/j.atmosres.2019.104650
- 7 Ramírez O, Sánchez de la Campa AM, Amato V, Moreno T, Silva LF, **de la Rosa JD** (2019) Physicochemical characterization and sources of the thoracic fraction of road dust in a Latin American megacity. **Science of The Total Environment** 652: 434-446. DOI: [10.1016/j.scitotenv.2018.10.214](https://doi.org/10.1016/j.scitotenv.2018.10.214)
- 8 Sánchez de la Campa AM, Sánchez-Rodas D, Alsioufi L, Alastuey A, Querol X, **de la Rosa JD** (2018) Air quality trends in an industrialised area of SW Spain, **Journal of Cleaner Production** 186: 465-474. DOI: 10.1016/j.jclepro.2018.03.122
- 9 Tobías A, Rivas I, Reche C, Alastuey A, Rodríguez S, Fernández-Camacho R, Sánchez de la Campa A, **de la Rosa J**, Sunyer J, Querol X (2018) Short-term effects of ultrafine particles on daily mortality by primary vehicle exhaust versus secondary origin in three Spanish cities. **Environment International** 111: 144-151 DOI: 10.1016/j.envint.2017.11.015
- 10 Fernández-Camacho R, **de la Rosa JD**, Sánchez de la Campa AM (2016) Trends and sources vs air mass origins in a major city in South-western Europe: Implications for air quality management. **Science of The Total Environment** 553: 305-315. [Doi:10.1016/j.scitotenv.2016.02.079](https://doi.org/10.1016/j.scitotenv.2016.02.079)

C.2. Congress

- 1 **Advanced Openair and R-Data Analysis, and HYSPLIT Joint Training Seminar.** Huelva University, Spain. 7-9th October 2019 web link
- 2 **2018 PC/Mac HYSPLIT Workshop.** IDAEA-CSIC Barcelona, Spain. 15-17th May 2018. web link
- 3 **DUSTWORKSHOP9** The 9th International Workshop on Sand / Dust storm and Associated Dustfall Tenerife, Spain. 22-24 May 2018. web link
- 4 **RICTA 2018. 6th Iberian Meeting on Aerosol Science and Technology** Bilbao, Spain 20-22 June 2018. web link
- 5 **5th Iberian Meeting on Aerosol Science and Technology.** 3-6th July Barcelona. web link
- 6 **4th Indoor and Workplace aerosols conference.** Barcelona, 20/22-4-16 . www.aerosols2016.eu

C.3. Research projects

- 1 **Reference: EQC2021-007208-P**
Espectrómetro de Masas con Plasma de Acoplamiento Inductivo (3Q ICP-MS) equipado con sistema de Ablación LASER (TQ ICP-MS) para el Centro de Investigación en Química Sostenible de la Universidad de Huelva
Duration: 1 de enero de 2022 31 de diciembre de 2023.
Funding: 525.084,31 (IVA incluido)



- Institution:** Agencia Estatal de Investigación. 1 financiada por MCIN/AEI /10.13039/501100011033 y por la Unión Europea NextGenerationEU/PRTR
IP: J de la Rosa
- 2 Reference: PID2021-126986OB-I00**
COMPOSICION QUIMICA DE PM A ALTA RESOLUCION TEMPORAL Y CONTRIBUCION DE FUENTES ANTROPOGENICAS
Duration: 1 de enero de 2022 - 31 de diciembre de 2024.
Funding: 130.000 euros
Institution: Agencia Estatal de Investigación.
IP: J de la Rosa
- 3 Reference: PY18-2332**
Caracterización Físico-Química y Contribución de Fuentes de Aerosoles Atmosféricos Inorgánicos y Orgánicos en la Cuenca Minera del Río Tinto (Huelva).
Institution: INCENTIVOS A LOS AGENTES DEL SISTEMA ANDALUZ DEL CONOCIMIENTO. AYUDAS A LA I+D+i, EN EL ÁMBITO DEL PLAN ANDALUZ DE INVESTIGACIÓN, DESARROLLO E INNOVACIÓN (PAIDI 2020). Modalidad Colaboración Tejido Productivo Consolidado. Plan Andaluz de Investigación.
Duration: 1 de enero de 2020 - 1 de enero de 2023.
Funding: 200.000 euros
IP: J de la Rosa y Gonzalo Márquez
- 4 Reference: RTI2018-095937-B-I00**
CARACTERIZACION FISICO-QUIMICA Y CONTRIBUCION DE FUENTES DE AEROSOLAS ATMOSFERICOS INORGANICOS Y ORGANICOS (RANGO FINO-ULTRAFINO) EN ZONAS INDUSTRIALES COMPLEJAS
Institution: Plan Estatal de Investigación. MCIU
Duration: 1 de enero de 2019 - 1 de enero de 2022.
Funding: 200.000 euros
IP: Jesús D. de la Rosa y G. Márquez
- 5 Reference: CGL2014-54637-P**
Evaluación del impacto a la Atmósfera e implicaciones en la calidad del aire de lixiviados ácidos en depósitos de fosfoyesos.
Institution: Plan Nacional I+D MINECO
Duration: 01/01/2015 - 31/12/2017.
Funding: 96.000 €.
IP : Jesús D. de la Rosa

C.4. Contracts, technological or transfer merits

- 1 Reference: CONT 2019/383409.
Title: **SERVICIO PARA LA ELABORACION DE PLANES DE MEJORA DE CALIDAD DEL AIRE: ESTUDIO DE LA CONTAMINACIÓN ATMOSFÉRICA POR MATERIAL PARTICULADO ATMOSFÉRICO Y OZONO TROPOSFÉRICO PARA LA ELABORACIÓN DE LOS PLANES DE MEJORA DE CALIDAD DEL AIRE. LOTE 1.**
Principal investigator: **Jesús D. de la Rosa**
Institution: **JUNTA DE ANDALUCÍA.**
Duration: **18-2-2121 + 3 years** Funding: **779,748 € (including TAX)**
- 2 Reference:
Title: **Estudio de Contribución de fuentes del material particulado atmosférico en el entorno del distrito minero de Riotinto (2019-2020)**
Principal investigator: **Jesús D. de la Rosa**
Institution: **ATALAYA MINING**
Duration: **18-12-18 + 2 years.** Funding: **80,250 € (including TAX).**
- 3 Reference: **10/2013/PC/00**
Title: **Estudio de la contaminación atmosférica por material particulado en la Comunidad Autónoma de Andalucía para el año 2013**
Principal investigator: **Jesús D. de la Rosa**
Institution: **Consejería de Medio Ambiente.**
Duration: **26-8-2013 a 31-12-2014 . 31/05/2015.** Funding: **508,200 € (including TAX).**