



CURRICULUM VITAE (CVA)

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Part A. PERSONAL INFORMATION

CV date

17/09/2025

First name	Aguasanta		
Family name	Miguel Sarmiento		
Gender (*)	Female	Birth date (dd/mm/yyyy)	
Social Security, Passport, ID number			
e-mail		URL Web	
Open Research and Contributor ID (ORCID)(*)	0000-0002-8496-3124		

(*) Mandatory

A.1. Current position

Position	Full Professor (CU)		
Initial date	19/03/2024		
Institution	University of Huelva		
Department/Center	Mining, mechanical, energy and construction engineering / Higher Technical School of Engineering		
Country	Huelva	Teleph. number	+34651884346
Key words	Environmental hydrochemistry, Acid mine drainage, Material degradation		

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

Period	Position/Institution/Country/Interruption cause
02/03/2020-18/03/2024	Associate Professor (TU) / University of Huelva / Spain
13/11/2018-01/03/2020	Associate Professor (CD) / University of Huelva / Spain
02/10/2017-12/11/2018	Associate Professor (AD) / University of Huelva / Spain
01/06/2014-01/10/2017	Research Assistant / University of Huelva / Spain
26/09/2011-30/09/2013	Associate Professor (PSI) / University of Huelva / Spain
01/05/2008-20/08/2011	Juan de la Cierva Postdoctoral Fellow / University of Cádiz / Spain
01/07/2007-30/04/2008	Postdoctoral Fellow / Université of Montpellier / France
01/05/2004-30/06/2006	Predocctoral Fellow / University of Huelva / Spain
24/10/2001-27/12/2003	Research Assistant / University of Huelva / Spain

A.3. Education

PhD, Licensed, Graduate	University/Country	Year
Degree in Chemistry	University of Granada	1999
PhD in Sciences	University of Huelva	2007

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

Aguasanta Miguel Sarmiento is Full Professor in the field of mechanical engineering in the Department of Mining, Mechanical, Energy and Construction Engineering at the University of Huelva. P.Sc. in Chemistry (1999) from the University of Granada and PhD in Science from the University of Huelva (2007). Her main line of research has been the mobility of metals and contamination by acid mine drainage. During her postdoctoral studies, she enjoyed a

scholarship at the University of Montpellier (France) and a Juan de la Cierva Contract at the University of Cadiz, where she conducted studies on toxicity caused by contaminants from mining facilities and supervised three doctoral theses on this subject. She has participated as a researcher in 7 international projects with a minimum duration of three years, 11 national projects of the Spanish Ministry, one project of the Regional Government of Andalusia, and one project of the CNRS-France. She has participated in 26 contracts with companies. Since registering in the field of mechanical engineering, she has led a line of research related to the degradation of structural materials affected by polymetallic sulphide mining, collaborating on several projects related to this topic, some of them international, and being the principal investigator on three of them. Her research activity has resulted in more than 200 research contributions, 67 of which are in international JCR-SCI journals, 46 of which are in the first quartile of their category (21 in the first decile) and 16 in the second quartile. The candidate also has 18 articles in non-SCI journals and 50 book chapters, books and extended proceedings with ISBN; in addition to 64 presentations at international conferences and 33 presentations at national conferences. She has been a member of the Panel of Experts and Evaluator of National Projects in Spain, Chile and Argentina.

Part C. RELEVANT MERITS

C.1. Most important publications in books and journals with "peer review" and in conferences.

C.1.1. De la Torre M.L., Aroba J., Dávila J.M., Sarmiento A.M. 2025. Evaluation of the effects of corrosion of carbon steel in acid mine drainages by using an explainable artificial intelligence model. Results in Engineering, 104380.

C.1.2. Sarmiento A.M., Rodriguez-Perez M., Davila J.M., de la Torre M.L. 2024. Effect of acid mine drainage on the mechanical properties of AISI 1020 carbon steel and AW6060 aluminium. Journal of Material Research and Technology, 32, 541-549.

C.1.3. Davila J.M., Sarmiento A.M., Grande J.A., Luis A.T. 2023. Different evolution of tensile and compressive strength in concrete affected by acid mine drainage. Construction and Building Materials, 397, 132351.

C.1.4. Davila, J.M., Sarmiento A.M., Fortes J.C., Grande J.A. (2/8). 2021. Determination of the extreme reduction of concrete strength due to Acid Mine Drainage by laboratory tests on specimens located in a real environment. Construction and Building Materials, 269, 121817.

C.1.5. AM Sarmiento, JA Grande, AT Luís, E Ferreira da Silva. (1/9). 2018. Negative pH values in an open-air radical environment affected by acid mine drainage. Characterization and proposal of a hydrogeochemical model. Sci total Environ, 644, 1244–1253.

C.1.6. AM Sarmiento, E Bonnail, JM Nieto, A DelValls. 2016. Bioavailability and toxicity of metals from a contaminated sediment by acid mine drainage: linking exposure–response relationships of the freshwater bivalve Corbicula fluminea to contaminated sediment. Environ Sci Pollut Res, 23: 22957–22967.

C.1.7. E Bonnail, AM Sarmiento, TA DelValls, JM Nieto, I Riba. 2016. Assessment of metal contamination, bioavailability, toxicity and bioaccumulation in extreme metallic environments (Iberian Pyrite Belt) using Corbicula fluminea. Sci total Environ, 544, 1031-1044

C.1.8. MR De Orte, AM Sarmiento, A DelValls, I Riba. 2014. Simulation of the potential effects of CO2 leakage from carbon capture and storage activities on the mobilization and speciation of metals. Marine Pollution Bulletin, 86: 59-67.

C.1.9. Torre E., Ayora C., Canovas C.R., Garcia-Robledo E., Galvan L., Sarmiento A.M. 2013. Metal cycling during sediment early diagenesis in a water reservoir affected by acid mine drainage. Sci total Environ, 461-462, 416-429.

C.1.10. Sarmiento A.M., Olías M., Nieto J.M., Canovas C.R., Delgado J. 2009. Natural attenuation processes in two water reservoirs receiving acid mine drainage. Sci total Environ, 407, 2051-2062.

C.2. Congress.

C.2.1. Rodriguez-Gomez C, Dávila JM, Sarmiento AM, de la Torre ML, Hernández-Gomez A (2025). Protecciones en el hormigón frente al drenaje ácido de mina. XXV Congreso Nacional de Ingeniería Mecánica. 10-13 junio de 2025. Santander, Spain

C.2.2. Sarmiento AM, Davila JM, de la Torre ML, Dominguez-Cartes V (2025). Comparative degradation of mechanical and structural materials exposed to Acid Mine Drainage from sulphide mining. Earth Systems and Environment Journal Annual Meeting (ESEV-25). 28-30 de abril 2025. Istanbul, Türkiye

C.2.3. De la Torre M.L., Aroba J., Davila J.M., Sarmiento A.M. (2025). Use of AI for the evaluation of the effects of steel corrosion in mining environments. 8th World Congress on Materials Science and Engineering. 27-28 de marzo 2025. Berlin, Germany.

C.2.4. Rodriguez-Gomez C, Davila JM, Sarmiento AM, de la Torre ML (2025). Alternatives to improve the concrete behavior in highly acidic environments. 8th World Congress on Materials Science and Engineering. 27-28 de marzo 2025 Berlin, Germany.

C.2.5. Sarmiento AM, Davila JM, Fortes JC, de la Torre ML, Rodriguez-Gomez C (2025). Stainless Steel degradation by sulphide mining. 8th World Congress on Materials Science and Engineering. 27-28 de marzo 2025 Berlin, Germany.

C.2.6. Sarmiento AM, Dávila JM, Macías F, Fortes JC, de la Torre ML, Cordoba F (2023). Efectos de la biocorrosión de un acero al carbono expuesto a lixiviados mineros. XXIV Congreso Nacional de Ingeniería Mecánica. 25-27 de octubre de 2023. Las Palmas de Gran Canaria, Spain.

C.2.7. A.M. Sarmiento, J.M. Dávila, F. Macías, F. Córdoba, J.C. Fortes and J.A. Grande (2023). Bio-degradation of Mechanical and Structural Materials Subjected to Mine Water Affected Environments. Conferences and Exhibitions of Surfaces, Interfaces and Coatings Technologies. 16-18 abril, 2023. Lisbon, Portugal.

C.2.8. AM Sarmiento, JC Fortes, JM Dávila, F Córdoba, M Santisteban, AT Luís (2019). Evaluación del grado de afección por drenajes ácidos de mina (AMD) en materiales mecánicos de las instalaciones mineras de la Faja Pirítica Ibérica (FPI). XII Congreso Ibérico de Geoquímica, 22-25 septiembre 2019, Évora, Portugal.

C.2.9. AM Sarmiento, E Bonnail, JM Nieto, A DelValls. 2016. Preliminary results of ecotoxicological assessment of an acid mine drainage passive treatment system testing water quality of depurated lixiviates. 15 Water Rock Interaction. 16-21 de octubre de 2016. Évora, Portugal

C.2.10. E Bonnail, AM Sarmiento, A DelValls, I Riba, JM Nieto (2015). Metal bioconcentration skills of *Corbicula fluminea* in extreme polymetallic environments: short exposure under laboratory conditions. Fifth International Conference on Environmental Management, Engineering, Planning and Economics (CEMEPE) and to the SECOTOX Conference, 14-18 junio de 2015. Mikonos Island, Grecia

C.3. Projects or research lines in which you have participated.

C.3.1. (BIO)DEGRADACIÓN DE MATERIALES MECÁNICOS Y ESTRUCTURALES EXPUESTOS A DRENAJES ÁCIDOS DE MINA (DEMADRE). Ministerio de Ciencia e Innovación, Ref. PID2021-123130OB-100. Universidad de Huelva. 01/09/2022 – 31/08/2025. 108.900,00 €. IP: Aguasanta Miguel Sarmiento.

C.3.2. MINE TAILINGS REPROCESSING, REVALORIZATION AND RISK REDUCTION CONNECTING INNOVATIONS IN METAL RECOVERY, GEOPOLYMERIZATION, CERAMICS AND SEALING LAYERS. ERA-MIN 3 Cofund 2021. Ref.: PCI2022-132983. Universidad de Huelva, Universidad de Aveiro, etc. 01/05/2022 hasta: 30/04/2025. 221.834,96 €. IP. Manuel Caraballo Monge

C.3.3. EFECTOS SOBRE LA DURABILIDAD DE LOS MATERIALES MECÁNICOS Y ESTRUCTURALES AFECTADOS POR DRENAJE ÁCIDO DE MINA. Proyectos de I+D+i en el marco del Programa Operativo FEDER Andalucía 2014-2020. Ref. UHU-202053. (01/07/2021 – 30/06/2023) 29.018,46 € IP: Aguasanta Miguel Sarmiento

C.3.4. EFECTOS DE LA BIODEGRADACIÓN DE MATERIALES ESTRUCTURALES Y MECÁNICOS EN MEDIOS CONTAMINADOS POR DRENAJES ÁCIDOS DE MINA. Proyectos para Investigadores Principales Noveles. Estrategia de Política de Investigación y

de Transferencia de la Universidad de Huelva. Ref. UHUPJ00006. (01/08/2020 – 31/07/2021) 7.068,37 €. IP: Aguasanta Miguel Sarmiento

C.3.5. PROJECT'S REFERENCE PENDING. MINE TAILINGS REPROCESSING, REVALORIZATION AND RISK REDUCTION CONNECTING INNOVATIONS IN METAL RECOVERY, GEOPOLYMERIZATION, CERAMICS & SEALING LAYERS. European Union's Horizon 2020, ERA-MIN3 No. 101003575. Manuel A. Caraballo, University of Huelva. 01/05/2022-30/04/2024. 932,755€. PI, Coordinator of European project.

C.3.6. ESTABILIDAD DE METALES EN PRECIPITADOS DE DRENAJES ÁCIDOS DE MINA: USO SOSTENIBLE E IMPLICACIONES AMBIENTALES. Ministerio de Economía y Competitividad, Ref. CGL2013-48460-C2-1-R. Universidad de Huelva. 01/01/2014 – 31/12/2016. 122.210,00 €. Manuel Olías Álvarez.

C.3.7. ECOLOGICAL TREATMENT OF ACID DRAINAGE (LIFE-ETAD). European Commission, LIFE+ Programme, Environment & Climate (Ref. LIFE12 ENV/ES/000250). Universidad de Huelva, Sacyr Construcción y Agencia de Medioambiente y Agua de Andalucía. 01/07/2013 to 31/12/2017. 2.650.738,00 €. Antonio Ramirez (Coord. Sacyr), Jose Miguel Nieto Liñán (UHU). <http://www.life-etad.com/index.php/es/>

C.3.8. EL CICLO DE LOS METALES Y SU IMPACTO EN LA CALIDAD DEL AGUA DE LA CUENCA DEL RÍO ODIEL. Ministerio de Ciencia e Innovación, Ref. CGL2010-21956-C02-02. Universidad de Huelva, CSIC. 01/01/2011 to 31/12/2013. 105.270,00 €. José Miguel Nieto Liñán (UHU)

C.3.9. ANÁLISIS Y MODELADO DEL COMPORTAMIENTO DE LIXIVIACIÓN EN CONDICIONES DE EQUILIBRIO DE LA MOVILIDAD DE METALES DE SEDIMENTOS MARINOS EN CONTACTO CON FUGAS DE CO₂ DE PROCESOS CS-SSGS. Ministerio de Ciencia e Innovación, Ref. CTM2008-06344-C03-03. Universidad de Cádiz. 01/01/2009 to 31/12/2011. Tomás Ángel del Valls Casillas (Universidad de Cádiz)

C.3.10. DO MINÉRIO AO SUB-PRODUTO; UM ESTUDO DE MONITORAMENTO AMBIENTAL E APROVEITAMENTO DE RESÍDUOS E REJEITOS. EDITAL nº 01/2010 FAPEMIG/FAPESPA/VALE S.A. (Ref. ICAAF nº 033/2011). Universidad de Huelva, Universidade Federal do Pará (Brasil). 29/11/2010 to 30/08/2015. Marco Antonio Galarza Toro (Universidade Federal do Pará)

C.4. Participation in technology/knowledge transfer activities and exploitation of results.

C.4.3. EVALUACIÓN DE LA CALIDAD DEL AGUA DEL EMBALSE DEL OLIVARGAS. Minas de Aguas Teñidas, S.A. OTR-2012-081. 01/07/2012-30/09/2012. Aguasanta Miguel Sarmiento. 4.000,00 €.

C.4.4. EJECUCIÓN DE CAMPAÑAS DE TRABAJO EN EL RÍO SAN FRANCISCO (TRES MARÍAS, BRASIL) PARA DETERMINAR LA CALIDAD DE SUS SEDIMENTOS. Votorantim Metais Zinco S/A. OT2010/149. 01/10/2010-31/12/2012. Tomás Ángel del Valls Casillas, Universidad de Cádiz. 116.000,00 €.

C.4.5. ESTABLECIMIENTO DE LOS NIVELES DE REFERENCIA Y PROGRAMA DE MEDIDAS PARA LOS RÍOS TINTO Y OIEL. Junta de Andalucía, Consejería de Medio Ambiente, Agencia Andaluza del Agua. 15/11/2010-15/11/2012. Manuel Olías Álvarez (UHU). 154.550,50 €.

C.4.6. DETERMINACIÓN DE LA CALIDAD DEL SISTEMA ACUÁTICO DEL RÍO SAN FRANCISCO EN LAS PROXIMIDADES A LA FACTORÍA DE LA EMPRESA VOTORANTIM METAIS ZINCO S/A. EN TRES MARÍAS, BRASIL. Votorantim Metais Zinco S/A. OT2009/113. 01/07/2009-31/12/2011. Tomás Ángel del Valls Casillas, Universidad de Cádiz. 152.500,00 €