ABBREVED CURRICULUM VITAE (CVA) – maximum 4 PAGES
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Part A. PERSONAL INFORMATION

CV date	10/11/2021

First and Family name	José Ángel Siles López		
Social Security, Passport, ID number	[redacted]	Age	[redacted]
Researcher codes	Open Researcher and Contributor ID (ORCID)	0000-0002-9546-083X	
	SCOPUS Author ID	16067520400	
	WoS Researcher ID	C-3017-2016	

A.1. Current position

Name of University/Institution	University of Cordoba			
Department	Inorganic Chemistry and Chemical Engineering. Faculty of Sciences			
Address and Country	Campus Universitario de Rabanales, Ctra. N-IV, km 396. Building Marie Curie (C-3), ground floor. 14071, Cordoba, Spain.			
Phone number	957218624	E-mail	a92siloj@uco.es	
Current position	Senior Lecturer		From	28/03/2018
Key words	Solid waste; valorisation; wastewater; composting, olfactometry; anaerobic digestion; bioprocesses; modelling; biorefinery			

A.2. Education

PhD, Licensed, Graduate	University	Year
Degree in Environmental Sciences	University of Cordoba	2004
Bachelor Thesis	University of Cordoba	2005
Diploma of Advanced Studies (Chemical Engineering)	University of Cordoba	2006
Master in Risk Prevention and Occupational Health	University of Cordoba	2007
PhD (Process Control Engineering)	University of Cordoba	2010

A.3. Career breaks: Non applicable

A.4. General indicators of quality of scientific production

I have been awarded **two six-year research periods (sexenios)**, corresponding to the periods 2005-2010 and 2011-2016, the last one with effects of 01/01/2017, **four autonomous sections (2019) (tramos autonómicos)** and **one five-year teaching period (quinquenio)**.

I have supervised **four PhD Theses** (finalized in 2015, 2018 and 2019), awarded with the maximum qualification of Outstanding Cum Laude and mention of International Doctorate, and one of them was with Extraordinary Doctorate Award. I co-currently supervise **5 additional Theses, already registered** and in an advanced stage of development. In addition, in recent years I have supervised **3 Bachelor's Thesis, 18 Final Degree Projects and 7 Final Master's Projects**, all of them related to the subject of the requested project.

In total I am co-author of **67 scientific articles** published in international journals indexed in the JCR (53 in the first quartile, 2 in national scientific journals), **5 book chapters** in international publishers (2 of them republished by the publisher due to its high demand), **1 book** in a national editorial, and **two patents in exploitation**.

My total number of citations is 1796, with an average of citations/year over the last 5 years of 177, and ***h*-index of 22**. My **normalized impact indicator is 1.75**, which indicates that the research carried out is above global average (calculated according to the methodology

applied for the 2019 call for "Severo Ochoa Centers of Excellence" and "María de Maeztu Units of Excellence", with data from averages of world citations of Scopus categories on 2/11/2020, being 1 the world standardization reference value).

Part B. CV SUMMARY

Senior Lecturer of Chemical Engineering at the University of Córdoba (UCO). After finishing my Degree in Environmental Sciences (2004, UCO), I did my Bachelor Thesis (Area of Chemical Engineering, UCO, 2005). Afterwards, I hold a F.P.I. grant and did my PhD on the treatment and energy recovery of organic waste (2010, UCO), with the qualification of Outstanding Cum Laude unanimously, European Doctorate Mention, Extraordinary Doctorate Award (2011) and 1st 'Young PhD Thesis' award for the best Doctoral Thesis defended in the period 2009-2012 (2012, ANQUE). In 2006 I completed a Master's Degree in Risk Prevention and Occupational Health (UCO). I also had various contracts, scholarships and grants in competitive competition, for the development of my pre and postdoctoral teaching-research work (such as José Castillejo grant).

Since 2004 I have belonged to UCO-076 Teaching Group (> 2300 h), participating in the UCO Plurilingualism Plan (English level C-2, ESOL), and in 10 teaching innovation projects. In 2014 I received the mention of Excellent Teaching (Docentia).

In addition to being the co-author of 73 scientific works (*h*-index 22, normalized impact indicator 1.75), I have participated in 45 congresses and conferences (15 national, 30 international), with 75 contributions presented, and in 10 R&D projects financed in national public calls (PI in 1) (total financing > € 1,300,000) and **17 R&D contracts of special relevance with companies and/or administrations (> € 800,000; PI in 3).** Currently, I coordinate a consortium made up of 13 international research organizations to participate in a H2020 international call. All the projects are related to biotechnological processes that affect the environment, either in the minimization of odor emission, improvement of water quality, compost production or in the search for renewable energy sources or raw materials, mainly in the form of biogas. Given the innovative nature and relevance for society of the research projects, several have been awarded: **Transfer 2007 and 2008 awards; UCO Social Council award for knowledge transfer to the industry (2009).**

I have also participated in the **development of two research patents exploited by Pradomudo S.L. (Córdoba, Spain).** Other recognitions related to my research activity include the one awarded by the Seville Bioindication Group and the University of Seville, on microbiology of active sludge (2007), and the Prize to the Best scientific work on urban solid waste treatment (2009, International University of Andalusia). In 2011 I received 'Córdoba Joven Award' from Junta de Andalucía, for outstanding university careers, and I was selected internationally and invited to attend the '63rd Lindau Nobel Laurate Meeting', with prestigious researchers awarded the Nobel Prize in Chemistry (2013).

In last years I supervised 4 PhD Theses, 3 Bachelor's Theses, 7 Final Master's Projects, 18 Final Degree Projects and currently I co-supervise 5 PhD Theses. I carried out pre and postdoctoral research stays at the Universities of Oxford, Southampton (U.K.) and Rey Juan Carlos (Madrid), and at Colsen b.v. company (Holland) (16.5 months in total). I have also taken more than 50 specialization courses and participated in the organizing and scientific committee of various conferences and congresses of recognized international prestige. Since 2016 I have acted as evaluator and Vice-Chair of the Marie Curie program (H2020-MSCA-RISE, ITN and IF) of the European Research Agency (REA).

Part C. RELEVANT MERITS

C.1. Publications

(1) Márquez, P., Benítez, A, Hidalgo-Carrillo, J., Urbano, F.J., Caballero, A., Siles, J.A., Martín, M.A. (2021). Simple and eco-friendly thermal regeneration of granular activated carbon from the odour control system of a full-scale WWTP: Study of the process in oxidizing atmosphere. **Sep. Purif. Technol**. 255: 117782. DOI: 10.1016/j.seppur.2020.117782

(2) Márquez, P., Benítez, A, Caballero, A., Siles, J.A., Martín, M.A. (2021). Integral evaluation of granular activated carbon at four stages of a full-scale WWTP deodorization system. **Sci. Tot. Environ.,** 754: 142237. DOI: 10.1016/j.scitotenv.2020.142237.

(3) Reyes, J.,Toledo, M., Michán, C., Siles, J.A., Alhama, J., Martín, M.A. (2020). Biofiltration of butyric acid: Monitoring odor abatement and microbial communities. **Environ. Res**., 190: 110057. DOI: 10.1016/j.envres.2020.110057.
(4) Toledo, M., Gutiérrez, Gutiérrez, M.C., Peña, A., Siles, J.A., Martín, M.A. 2020. Co-composting of chicken manure, alperujo, olive leaves/pruning and cereal straw at full-scale: Compost quality assessment and odour emission. **Proc. Saf. & Envrion. Protect**., 139: 362-370. DOI: 10.1016/j.psep.2020.04.048
(5) Toledo, M., Siles, J.A., Martín, M.A. 2018. Multivariate analysis and biodegradability test to evaluate different organic wastes for biological treatments: Anaerobic co-digestion and co-composting. **Waste Manage.**, 78, 819-828. DOI: 10.1016/j.wasman.2018.06.052
(6) Toledo, M., Gutiérrez, M.C., Siles, J.A., García-Olmo, J., Martín, M.A. 2018. Chemometric analysis and NIR spectroscopy to evaluate odorous impact during the composting of different raw materials. **J. Clean. Prod.**,167, 154-162. DOI: 10.1016/j.jclepro.2017.08.163
(7) Gutiérrez, M.C., Siles, J.A., Diz, J., Chica, A.F., Martín, M.A. 2017. Modelling of composting process of different organic waste at pilot scale: biodegradability and odor emissions. **Waste Manage**., 59: 48-58. DOI: 10.1016/j.wasman.2016.09.045
(8) Gutiérrez, M.C., Serrano, A., Siles, J.A., Chica, A.F., Martín, M.A. 2017. Centralized management of sewage sludge and agro-industrial waste through co-composting. **J. Environ. Manage**., 196: 387-3. DOI: 10.1016/j.jenvman.2017.03.042
(9) Serrano, A., Siles, J.A., Martín, M.A., Chica, A.F., Estévez-Pastor, F.S., Toro-Baptista, E. 2016. Improvement of anaerobic digestion of sewage sludge through microwave pre-treatment. **J. Environ. Manage.** 177: 231-239. DOI: 10.1016/j.jenvman.2016.03.048
(10) Siles, J.A., Vargas, F., Gutiérrez, M.C., Chica, A.F., Martín, M.A. 2016. Integral valorisation of waste orange peel using combustion, biomethanisation and co-composting technologies. **Bioresource Technol.**, 211: 173:2. DOI: 10.1016/j.biortech.2016.03.056

C.2. Research projects

1. Title: CHEMICAL, BIOLOGICAL AND ENERGY STRATEGIES TO PROMOTE SUSTAINABILITY IN THE INTEGRAL WATER CYCLE AND URBAN SOLID WASTE PLANTS Financing Entity: FEDER Andalucía 2014-2020. Call: 2018. Principal Investigator: M.A. Martín Santos and Carmen Michán Doña. Affiliation: University of Córdoba. Period of application: 13/01/2020. Quantity: € 35,000.00. Type of participation: Researcher.
2. Reference: CTM2017-88723-R. Title: FAST QUANTIFICATION OF VOLATILE ORGANIC COMPOUNDS, FUNDAMENTALLY ODOROUS, EMITTED BY ORGANIC WASTE Financing Entity: MINECO. Call: 2017. Principal Investigator: M.A. Martín Santos and Jose Angel Siles López. Affiliation: University of Córdoba. Period of application: 01/01/2018 - 30/12/2020. Quantity: € 231,110.00. Type of participation: Principal Investigator.
3. Reference: CTQ2014-60050-R. Title: IMPACT OF ODORIFEROUS EMISSIONS FROM WASTE MANAGEMENT PLANTS. EVALUATION AND IMPROVEMENT Financing Entity: MINECO. Call: 2014. Principal Investigator: M.A. Martín Santos. Affiliation: University of Cordoba. Period of application: 01/01/2015 - 30/12/2017. Quantity: € 166,980.00. Type of participation: Researcher.
4. Reference: CTM2011-26350. Title: ANAEROBIC CODIGESTION OF AGROINDUSTRIAL WASTE. Financing Entity: MICCIN. Call: 2011. Principal Investigator: M.A. Martín Santos. Affiliation: University of Cordoba. Period of application: 01/01/2012 - 30/12/2014. Quantity: € 131,89000. Type of participation: Researcher.
5. Reference: AECID-PCI D/024687/09+D/030888/10+A1/039699/11 Title: Strengthening of “Laboratoire de Biotechnologie, environnement et qualité" in terms of organic waste. Financing Entity: Ministry of Foreing Affairs. Call: 2009-10-11. Principal Investigator: A.F. Chica Pérez. Affiliation: University of Cordoba. Period of application: 17/01/2010 - 12/06/2013. Quantity: € 219,000.00. Type of participation: Researcher.

C.3. Contracts, technological or transfer merits

1. Title: Valorización del alpechín para la obtención de energía y recuperación de agua **Company:** Oleícola El Tejar, Ntra. Sra. de Araceli S.C.A. **Principal investigator:** José Ángel Siles López. **Affiliation:** University of Córdoba. **Period of application**: 01/10/2020-30/09/2022. **Quantity**: € 16,500.00

2. Title: Study of the odoriferous impact of different WWTPs located in the Algarve. **Company:** ACCIONA AGUA (Portugal). **Principal investigator:** M.A. Martín Santos and M. Carmen Gutiérrez Martín. **Affiliation:** University of Córdoba. **Period of application:** 01/02/2021-31/05/2021. **Quantity:** € 9,036.29
3. **Title**: Determination of the most favourable conditions for co-composting of alpeorujo. **Company**: COVIDESA SCA. **Principal investigator:** M.A. Martín Santos and M. Carmen Gutiérrez Martín. **Affiliation**: University of Córdoba**. Period of application**: 01/01/2020-31/12/2023. **Quantity**: € 45,406.16
4. **Title**: Odorous impact of the possible WWTP located between Posadas and the Rivero de Posadas district. **Company**: Ayuntamiento de Posadas (Córdoba). **Principal investigator**: M.A. Martín Santos and M. Carmen Gutiérrez Martín. **Affiliation**: University of Córdoba. **Period of application**: 2021. **Quantity**: € 3,373.00
5. Title: Collaboration in the Project "Nutrients and regenerated water recycling in WWTPS through twin-layer microalgae culture for biofertilizers production (LIFE13 ENV/ES/00800, LIFE+ TL-BIOFER)". **Company:** BIOMASA PENINSULAR SA. **Principal investigator:** M.A. Martín Santos and José Ángel Siles López. **Affiliation:** University of Córdoba. **Period of application**: 02/12/2016 - 01/10/2018. **Quantity**: € 33,638.00
6. Title: Analytical monitoring of anerobic digestion **Company:** EMACSA (Empresa municipal de aguas de Córdoba, S.A.) **Principal investigator:** Mª Ángeles Martín Santos **Affiliation:** University of Cordoba **Period of application**: 07/01/2015-31/12/2016 **Quantity**: € 8,954.00
7. Title: Co-digestion of WWTP sludge using ATAD technology (CoDAAT) **Company:** ABENGOA WATER-ABENGOA RESEARCH **Principal investigator:** Mª Ángeles Martín Santos **Affiliation:** University of Cordoba **Period of application**: 01/07/2015-31/10/2016 **Quantity**: € 72,600.00
8. Title: Analysis and improvement of the anaerobic digestion plant for alcohol vinasse at Azucarera Montero S.A. **Company:** Azucarera Guadalfeo S.A. and Azucarera Montero S.A. **Principal investigator:** Arturo Fco. Chica Pérez and Antonio Martín Martín **Affiliation:** University of Cordoba. **Period of application**: 04/11/2014-01/11/2015 **Quantity**: € 24,200.00
9. Title: Effect of microwave pretreatment on the anaerobic digestion process of excess active sludge from sewage treatment plants: studies in semi-continuous regime at laboratory and pilot scales. **Company:** EMASESA. **Principal investigator:** M.A. Martín Santos and J.Á. Siles López. **Affiliation:** University of Córdoba. **Period of application**: 01/02/2014-28/02/2015. **Quantity**: € 84,216.00
10. Title: Conditioning and reuse of sludge from wastewater treatment plants in the province of Córdoba. **Company:** EMPROACSA. **Principal investigator:** A. Martín Martín. **Affiliation:** University of Córdoba. **Period of application**: 08/10/2010-27/02/2015. **Quantity**: € 155,620.00

C.4. Patents

1. Authors: Aguado, M.; Martín, A.; Chica, A.F.; Martín, M.A.; Siles, J.A.; Berrios, M. Reference: P200700462. Title: Procedure for obtaining squalene. Priority countries: PCT. Date: 2007. Owner: Area of Chemical Engineering (UCO). **Exploitation: PRADOMUDO S.L.**
2. Authors: Aguado, M.; Martín, A.; Chica, A.F.; Martín, M.A.; Siles, J.A.; Berrios, M. Reference: P200701369. Title: Procedure for obtaining squalene Priority countries: PCT. Date: 2007. Owner: Area of Chemical Engineering (UCO). **Exploitation: PRADOMUDO S.L.**

C.5. Awards

1. Chelonia Foundation Award, 2020. Recycling, reusing and reducing: Chemical, biological and energy strategies for sustainability in the integral water cycle". II Edition Mares Circulares.
2. 'Córdoba Joven 2011' Award, section University. Council of the Presidency and Equality, Junta de Andalucía. 2012.
3. 1st 'Young PhD Thesis' Award for the best Doctoral Thesis defended in the period 2009-2012 on applications of Chemical Engineering (International) (ANQUE), 2012.
4. Extraordinary Doctorate Award. Macro-area of Engineering and Technology. UCO. 2011.

C.6. Others

Regarding my participation in **evaluation tasks**, I am an evaluator of scientific articles in **8 internationally well-recognized journals**.

Furthermore, it is worth noting that since 2016 I have been an **expert evaluator and Vice-Chair of the European Commission (REA**), in three H2020-MSCA Marie Curie programs: RISE, ITN and IF).