



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	Manuela		
Family name	Hidalgo Muñoz		
Gender (*)	Female	Birth date (dd/mm/yyyy)	
Social Security, Passport, ID number			
e-mail	Manuela.hidalgo@udg.edu	URL Web: https://www.udg.edu/ca/directori/pagina-personal?ID=52104	
Open Researcher and Contributor ID (ORCID) (*)	0000-0002-4450-3772		

(*) Mandatory

A.1. Current position

Position	Full Professor (Catedrática de Universidad)		
Initial date	01/01/2012		
Institution	Universitat de Girona		
Department/Center	Química	Faculty of Sciences	
Country	Spain	Teleph. number	+34616681396
Key words	Analytical Chemistry, Environmental Chemistry, metals, organic micropollutants, water, soil, biota, sample preparation, spectroscopy (ICP, XRF), chromatography, mass spectrometry		

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

Period	Position/Institution/Country/Interruption cause

A.3. Education

PhD, Licensed, Graduate	University/Country	Year
PhD in Chemistry	Autonomous University of Barcelona	1991
Master thesis	Autonomous University of Barcelona	1996
BSc Chemistry	Autonomous University of Barcelona	1995

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

Dr. Manuela Hidalgo is a Full Professor of Analytical Chemistry at the University of Girona, where she leads, with Prof. Victòria Salvadó, the Analytical and Environmental Analytical Research Group. She holds a bachelors degree and a PhD in Chemical Sciences from the Autonomous University of Barcelona. He has done post-doctoral stays at the University of California at Berkeley (Office of Environment, Health and Safety and School of Chemistry) and the Massachusetts Institute of Technology (Dept. of Environmental and Civil Engineering). Her research activity has been

developed within different lines of research in the field of Environmental Sciences and Analytical Chemistry, which generally focuses on the development of analytical methodologies for the determination of inorganic and organic species, mainly in environmental matrices. More specifically, important parts of these studies are centred on sample treatment techniques, applied in combination with different instrumental, spectroscopic and chromatographic techniques: ICP-MS, XRF, LC-MS. Her interests include the study of the environmental behaviour and fate of pollutants in the environment, with special emphasis on the so-called pollutants of emerging concern and innovative nature-based systems for wastewater treatment and water reuse.

She has participated in 29 competitive, national and international, research projects, in 12 of them as principal investigator. She is the author of 140 articles, 131 in SCI indexed journals. She has also co-authored 4 book chapters and more than 160 contributions to international conferences. She is an associated editor of the Journal *Frontiers in Environmental Sciences*.

Dr. Manuela Hidalgo has 5 Approved Research Sexennial period (last, 2018) and a h-index of 41 (Scopus). She has supervised 12 doctoral theses.

She has also held several academic management positions, among others: Director of the Graduate School at the University of Girona, Director of the Chemistry PhD Program and Responsible of student admissions at the University of Girona. She collaborates with different agencies for the evaluation of research: National Agency for Evaluation and Prospective (ANEP), Agència de Gestió d'Ajuts Universitaris i de Recerca (AGAUR), Research Foundation-Flanders (Fonds Wetenschappelijk Onderzoek - Vlaanderen, FWO), CONACYT Argentina. She has been a member and chair of the Chemistry Committee of the National Commission for the Evaluation of the Research Activity (CNEAI) (2013-2015).

Part C. RELEVANT MERITS (sorted by typology)

C.1. Publications

Following is a selection of publications in the last 10 years:

- L. Bertrams-Tubau, S. Martinez-Campos, J. López-Doval, M. Abril, S. Ponsó, V. Salvadó, M. Hidalgo, A. Picó-Tomás, J.L. Balcazar, L. Proia. Nature based reactors: Tackling antibiotic resistance in urban wastewater treatment. *Environmental Science and Ecotechnology*, 22, 100445, (2024).
- V. Salvadó, M. Hidalgo, N. Pous, T. Serra, J. Colomer. Daphniafilter: A nature-based tertiary treatment in: "Innovative wastewater treatment technologies – The INNOQUA Project". Ed. C. Bumbac, E. Clifford, J.B. Dussaussois, A. Schaal, D. Thompkins. Pp. 192-221. Now Publishers, 2021.
- N. Pous, A. Barcelona, L. Sbardella, M. Hidalgo, J. Colomer, T. Serra, V. Salvadó. Zooplankton-based reactors for tertiary wastewater treatment: A pilot-case study. *Journal of Environmental Management* **278**(1) 111538 (2021).
- N. Pous, A. Barcelona, L. Sbardella, O. Gili, M. Hidalgo, J. Colomer, T. Serra, V. Salvadó. Vermifilter and zooplankton based-reactor integration as a nature-based system for wastewater treatment and reuse. *Case studies in Chemical and Environmental Engineering*, **4** 100153 (2021).
- N. Pous, M. Hidalgo, T. Serra, J. Colomer, J. Colprim, V. Salvadó. Assessment of zooplankton-based eco-sustainable wastewater treatment at laboratory scale. *Chemosphere* **238** 124683 (2020).
- L. Torrent, M. Iglesias, E. Marguí, M. Hidalgo, D. Verdaguer, L. Llorens, L. Kodrec and K. Vogel-Mikuš. Uptake, translocation and ligand of silver in *Lactuca sativa* exposed to silver nanoparticles of different size, coating and concentration. *Journal of Hazardous Materials* **384** 121201 (2020).
- S. Majumder, E. Marguí, G. Roman-Ross, D. Chatterjee, M. Hidalgo. Hollow fiber liquid phase microextraction combined with total reflection x-ray fluorescence spectrometry for the determination of trace level inorganic arsenic species in waters. *Talanta* **217** 121005 (2020).
- L. Torrent, F. Laborda, E. Marguí, M. Hidalgo, M. Iglesias. Combination of cloud point extraction with single particle inductively coupled plasma mass spectrometry to characterize silver nanoparticles in soil leachates. *Analytical and Bioanalytical Chemistry* **411**(20) 5317 (2019).
- E. Marguí, M. Hidalgo, A. Migliori, J.J. Leani, I. Queralt, N. Kallithrakas-Kontos, C. Streli, J. Prost, A.G. Karydas. A first evaluation of the analytical capabilities of the new X-ray fluorescence facility at International Atomic energy Agency-Elettra Sincrotrone Trieste for multipurpose total reflection X-ray fluorescence analysis. *Spectrochimica Acta Part B-Atomic Spectroscopy* **154** 8 (2018).

- S. Mikolenko, V. Liedienov, M. Kharytonov, N. Makieieva, T. Kuliush, I. Queralt, E. Marguí, M. Hidalgo, G. Pardini, M. Gispert. Presence, mobility and bioavailability of toxic metal(oids) in soil, vegetation and water around a Pb-Sb recycling factory (Barcelona, Spain). *Environmental Pollution* **237** 569-580 (2018).
- P. Batlle-Vilanova, R. Ganigue Pages, S. Ramió-Pujol, L. Bañeras, G. Jiménez, M. Hidalgo, M.D. Balaguer, J. Colprim, S. Puig. Microbial electrosynthesis of butyrate from carbon dioxide: production and extraction. *Bioelectrochemistry* **117** 57 (2017).
- E. Marguí, M. Iglesias, F. Camps, L. Sala, M. Hidalgo. Long-term use of biosolids as organic fertilizers in agricultural soils: potentially toxic elements occurrence and mobility *Environmental Science and Pollution Research*, **23**(5) 4454 (2016).
- S. Majumder, B. Nath, S. Sarkar, D. Chatterjee, G. Roman-Ross, M. Hidalgo Size-fractionation of groundwater arsenic in alluvial aquifers of West Bengal, India; The role of organic and inorganic colloids *Science of the Total Environment*, **468** 804 (2014).

C.2. Congress

Selected communications presented at international conferences:

- N. Navarro, V. Salvadó, M. Hidalgo. Method development for assessing PFAS and microplastics contamination in environmental waters: a case study of the Onyar river, Spain. 29th Annual Meeting of the Society of Environmental Toxicology and Chemistry (34th SETAC Europe). Sevilla (Spain), 2024.
- M. Hidalgo, A.C. Suñer, V. Salvadó. Assessment of the integration of a vermifilter and a zooplankton-based reactor for the removal of microcontaminants to produce reusable water. 6th IWA International Conference on eco-Technologies for Wastewater Treatment (eco-STP2023). Girona (Spain), 2023.
- L. Sbardella, A. Barcelona, T. Serra, J. Colomer, M. Hidalgo, V. Salvadó. A modular and innovative nature-based integrated solution to provide sanitation and sustainable wastewater treatment in decentralized systems. IWA Ecotechnologies for wastewater treatment. Milan (Italy), 2021.
- M. Iglesias, L. Torrent, E. Marguí, M. Hidalgo, Interaction of silver nanoparticles with agricultural soils: effects of form and size of PVP coated nanoparticles. European Winter Conference on Plasma Spectrochemistry. Pau (France), 2019.
- M. Hidalgo, M. Iglesias, F. Camps. Impact of water management on arsenic and cadmium accumulation by rice (*Oryza sativa L.*) 29th Annual Meeting of the Society of Environmental Toxicology and Chemistry (23th SETAC Europe). Helsinki (Finlandia), 2019.
- S. Majumder, E. Marguí, G. Roman-Ross, D. Chatterjee, M. Hidalgo. Hollow fiber liquid phase microextraction (HF-LPME) combined with total reflection X-ray spectrometry (TXRF) for the determination of trace level inorganic arsenic species in water. European Conference on X-ray spectrometry (EXRS 2018). Ljubljana (Eslovenia), 2018.

C.3. Research projects (last 10 years)

Title: BIODAPH2O - Eco-efficient system for wastewater tertiary treatment and water resuses in the Mediterranean region

Funding organism: European Commission LIFE2021-SA-ENV (project ID 101074191)

Period: 01/08/2022 – 31/01/2026

Budget (€): 2.128.772,06

PI: Victòria Salvadó (Universitat de Girona)

Title: Assessment of two nature-based solutions as tertiary wastewater treatments for water reuse. A focus on the removal of micropollutants (PID2021-127326PB-I00)

Funding organism: Spanish Ministry of Science and Innovation

Period: 01/09/2022-31/08/2025

Budget (€): 130,000

PI: Manuela Hidalgo, Eva Marguí

Title: BIODAPH: An eco-efficient tertiary system for water reuse in agricultural irrigation.

Financing entity: Ministry of Science and Innovation. Ecological and Digital Transition Projects



Principal Investigator: Victòria Salvadó; Manuela Hidalgo
Period: 01/12/2022 - 30/11/2024
Budget (€): 138,000.00

Cost Action 18130 - European Network for chemical elemental analysis by total reflection X-ray fluorescence.

Period: 2019-2023

Budget (€): 105006.50 (1st-Grant agreement period, 03/2019-03/20).

PI: Laura Borgese (University of Brescia, Italy)

Type of participation: Researcher

Innovative ecological-based modular water reclamation system INNOQUA

Funding organism: Comisión Europea. Programa Horizon 2020. H2020-WATER-2015-two-stage (EU Project ID 689817)

Period: 01/06/2016 – 31/05/2020

Budget (€): 532.792,50 (Universitat de Girona), 6.997.026,25 (total)

PI: Victoria Salvadó Martin (Universitat de Girona),

Coordinator: Germain Adell (NOBATEK, France)

Type of participation: Researcher

Evaluación de los efectos del uso de aguas no convencionales en la zona no saturada y saturada. Enfoque multidisciplinar.

Funding organism: Proyectos de I+D+I del Programa Estatal de Investigación, Desarrollo e Innovación orientada a los retos de la Sociedad (Ref. Proyecto: CGL2013-48802-C3-2-R)

Period: 01/01/2014 - 31/12/2017

Budget (€): 105.000 (subproject UdG)

PI: Manuela Hidalgo

Aplicación de agua no convencional (tratada-desalada) y fangos procedentes de depuradoras y su impacto en el medio acuífero y suelos. Estudios de campo y laboratorio

Funding organism: Programa Nacional de Ciencias de la Tierra y Cambio Global, Ministerio de Ciencia e Innovación (ref. CGL2010-22168-C03-03)

Period: 01/01/2011 - 31/12/2015

Budget (€): 121.000 (subproject UdG)

PI: Manuela Hidalgo

C.4. Contracts, technological or transfer merits

Experiments with synchrotron radiation for modern environmental and industrial applications.

Funding organism: IAEA-International Atomic Energy Agency.

Coordinated Research Projects (ref. CRP-G42005)

Period: 2014 - 2018

Budget (€): 60.000

Responsible at UdG: Eva Marguí

Coordinator: Andreas Karydas (IAEA)

Detección de la posible presencia de fármacos en aguas potables y regeneradas

Funding organism: Consorcio de la Costa Brava

Period: 2013 – 2015

Budget (€): 20.000

Responsible: Manuela Hidalgo