

Curriculum vitae

PERSONAL INFORMATION

Cristina Valhondo

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WORK EXPERIENCE

16 Jul 2016–Present

Researcher

Institute of Environmental Assessment and Water Research - Spanish National Research Council, Barcelona (Spain)

Postdoctoral Researcher within the JPI project ACWAPUR.

Design and performance of field experiments related with artificial recharge of aquifers and reactive barriers to enhance the removal of emerging organic compounds in the recharge water. Preparation of projects and proposals for private and public funding. Writing and edition of scientific papers and technical reports.

6 Apr 2016–16 Jul 2016

Fellowship

International Center for numerical Methods in Engineering - Technical University of Catalonia, Barcelona (Spain)

10 Feb 2012–31 May 2013

Undergraduate researcher

Institute of Environmental Assessment and Water Research - Spanish National Research Council, Barcelona (Spain)

Life-ENSAT Project manager. The main tasks are to write and edit scientific papers and project deliverables and to interpret the project field data with a numerical model to obtain values for hydrogeological parameters for the experiment site and values of the studied emerging compounds degradation rates.

8 Jan 2008–23 Dec 2011

Fellowship

Institute of Earth Sciences Jaume Almera - Spanish National Research Council, Barcelona (Spain)

To design and perform field sampling campaign and activities to test a reactive barrier installed in an infiltration basin to enhance the quality of the recharge water. To manage the collected data and to obtain information of the contaminant behavior.

EDUCATION AND TRAINING

8 Jan 2007–3 Feb 2017

Doctor of Philosophy

Technical University of Catalonia, Barcelona (España)

11/01/2007–14/06/2007

Course on groundwater hydrology

Technical University of Catalonia, Barcelona (España)

17/09/1998–30/03/2007

Bachelor of Science - Sea Sciences

Las Palmas de Gran Canaria University, Las Palmas (España)

ADDITIONAL INFORMATION

Publications

- **Cristina Valhondo**; Jesús Carrera. *Water as a resource – quality, supply, distribution, and aquifer recharge*. Sustainable Water and Wastewater Processing. Elsevier, 01/06/2019. [ISBN 9780128161708](#)
- **Cristina Valhondo**; Lurdes Martínez-Landa; Jesús Carrera; Carlos Ayora; Karsten Nödler; Tobias Licha. *Evaluation of EOC removal processes during artificial recharge through a reactive barrier*. Science of The Total Environment. 612, pp. 985 - 994. 2018. [DOI:10.1016/j.scitotenv.2017.08.054](#)
- Alba Grau-Martínez; Albert Folch; Clara Torrentó; **Cristina Valhondo**; Carme Barba; Cristina Domènech; Albert Soler; Neus Otero. *Monitoring induced denitrification during managed aquifer recharge in an infiltration pond*. Journal of Hydrology. 561, pp. 123 - 135. 2018. [DOI: 10.1016/j.jhydrol.2018.03.044](#)
- Isabel Tubau; Enric Vázquez-Suñé; Jesús Carrera; **Cristina Valhondo**; Rotman Criollo. *Quantification of groundwater recharge in urban environments*. Science of The Total Environment. 592, pp. 391 - 402. 2017. [DOI: 10.1016/j.scitotenv.2017.03.118](#)
- **C. Valhondo**; L. Martínez-Landa; J. Carrera; J. J. Hidalgo; I. Tubau; K. De Pourcq; A. Grau-Martínez; C. Ayora. *Tracer test modeling for characterizing heterogeneity and local-scale residence time distribution in an artificial recharge site*. Hydrology and Earth System Sciences. 20 - 10, pp. 4209 - 4221. 2016. [DOI: 10.5194/hess-20-4209-2016](#)
- **Cristina Valhondo**; Jesús Carrera; Carlos Ayora; Isabel Tubau; Lurdes Martínez-Landa; Karsten Nödler; Tobias Licha. *Characterizing redox conditions and monitoring attenuation of selected pharmaceuticals during artificial recharge through a reactive layer*. Science of The Total Environment. 512-513, pp. 240 - 250. 2015. [DOI: 10.1016/j.scitotenv.2015.01.030](#)
- **Cristina Valhondo**; Jesus Carrera; Carlos Ayora; Manuela Barbieri; Karsten Nödler; Tobias Licha; Maria Huerta. *Behavior of nine selected emerging trace organic contaminants in an artificial recharge system supplemented with a reactive barrier*. Environmental Science and Pollution Research. 21 - 20, pp. 11832 - 11843. 10/2014. [DOI: 10.1007/s11356-014-2834-7](#)
- Marta Hernandez; Oriol Gilbert; Xabier Bemat; **Cristina Valhondo**; Mariane Köck-Schulmeyer; Maria Huerta-Fontela; M^a Victoria Colomer. *Innovative reactive layer to enhance soil aquifer treatment: successful installation in the Llobregat aquifer (Catalonia, ne Spain)*. Boletín Geológico Minero. 125 - 2, pp. 157 - 172. IGME, 13/06/2014.
- D. Bolster; M. Barahona; M. Dentz; D. Fernandez-Garcia; X. Sanchez-Vila; P. Trinchero; **C. Valhondo**; D. M. Tartakovsky. *Probabilistic risk analysis of groundwater remediation strategies*. Water Resources Research. 45 - 6, [DOI: 10.1029/2008WR007551](#)

Teaching experience Risk and behavior of organic contaminants in aquatic environments (2018-present) Level: master, doctorate. Hours: 3, Technical University of Catalonia

Mentoring **Master Thesis.**
2018. Garcia, Juliá, Caracterización de sistemas de recarga artificial mediante tests de trazadores, Technical University of Catalonia, Advisors: J. Carrera, **C. Valhondo**, M. Saaltnik.

Doctoral Thesis.
Wang, Jingjing, Biochemical reactive transport modeling during artificial recharge, Technical University of Catalonia, Advisors: J. Carrera, **C. Valhondo**, M. Saaltnik. (on going)

Projects

MARadentro - *Managed Aquifer Recharge: Assessing the Risk of Recharging Regenerated Water*, JPI - WaterWorks (2019-2013).

NITREM - *NITrogen REMoval from waste rock*, EIT RawMaterials (2018-2021).

ACWAPUR - *ACcelerated WAtER PURification during artificial recharge of water: A tool to restore drinking water resources*, JPI - WaterWorks2014 (2016-2018).

ENSAT - *ENhancement of Soil Aquifer Treatment*, LIFE08 ENV/E/000117 (2012-2014).

MUSTANG - *A Multiple Space and Time Scale Approach fro the Quantification of deep saline formations fro CO2 storage*, FP7-ENERGY-227286 (2009-2013).