Curriculum vitae: Mónica Vergara Araya

Address and contact data

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MSc. Biotechnology, Biochemical engineer

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Work Experience

since 05/2017 **Research assistant** at the Magdeburg-Stendal University of Applied Sciences, Department Water, Environment, Construction and Safety. Magdeburg, Germany. Optimization of environmental process systems. Participation in the acquisition, application and processing of research and development projects in urban water management. Teacher of the master course "Wastewater Treatment". Collaboration in international projects (e.g. Chile, Cuba). Supervision of student thesis/work in the wastewater field.

07/2016-10/2016 **Research assistant** at the Mannheim University of Applied Sciences, Faculty for Biotechnology. Mannheim, Germany. Optimization of the laboratory "Practical course of reaction engineering", Modelling of residence time and oxygen transport in bioreactors.

12/2015-05/2016 **Master student** at the WWTP BASF SE. Ludwigshafen, Germany. Operation of a membrane Bioreactor pilot plant for industrial wastewater treatment.

09/2013-11/2015 **Research assistant / Master student** at the Karlsruhe Institute of Technology (KIT), Institute for Technology Assessment and Systems analysis (ITAS). Karlsruhe, Germany. Sustainable water, waste and energy management in decentralized systems. Focus: wastewater, biowaste, biogas, environmental engineering.

06/2011-07/2013 **Process Engineer** EDAS Ltda, WWTP "*La Farfana*". Santiago, Chile. Operation and control of the WWTP. Main responsible for the anaerobic digestion pilot plant. Lead engineer and supervisor of international research projects with technology centres and universities.

01/2011-03/2011 **Intern** at the University Valladolid, Department for Chemical Engineering, Process and Environmental Technologies (IQ). Valladolid, Spain. Developing of mass balances of Sulphur, Carbon and biogas. Operation and control of the pilot plant for anaerobic digestion.

12/2009-01/2010 **Intern** at CODELCO Chile, Division "*El Teniente*", Unit for Risks and Environment. Rancagua, Chile. Reuse of used lubricating oil as boiler fuel.

Education

09/2014-05/2016 **MSc in Biotechnology,** Focus: Bioprocess Development. Mannheim University of Applied Sciences. Master thesis at WWTP BASF SE, Ludwigshafen, Germany.

09/2013-03/2014 **MSc „Clean Development Mechanism and Energy Efficiency"**

04/2011-12/2011 Pontifical Catholic University Valparaíso (PUCV), Valparaíso, Chile. Master thesis at the Karlsruhe Institute of Technology (KIT), Institute for Technology Assessment and Systems analysis (ITAS), Karlsruhe, Germany

08/2012-12/2012 Course "Bio-business, economy in the field of Biotechnology" at the Pontifical Catholic University Valparaíso (PUCV), Valparaíso, Chile

03/2005-05/2011 **Bioprocesses / Biochemical Engineer** at the Pontifical Catholic University Valparaíso (PUCV), School for Biochemical engineering (EIB). Valparaíso, Chile. Thesis at the University Valladolid, Spain and WWTP "*La Farfana*", Santiago, Chile.

Prizes and recognitions

2012 Prize „*Ingeniero Carmen Gloria Arévalo*", Best Thesis of the School for Biochemical engineering in 2012

2005 Scholarship for first-year students, for students in the highest positions of the admission ranking

Publications

Poganietz, W.-R., Lehn, H., Vergara, M., Steiner, F. [2016]. *Separating wastewater at the source: Impacts on Energy efficiency in decentralized energy systems*. Joint 12th Socio-Economic Metabolism section conference and 5th Asia-Pacific conference. Nagoya, Japan, 28.-30.09.2016

Silva, F., Cabrol, L., Hauck, N., Vergara, M., Pérez, A., Lesty, Y., Chamy, R. [2014]. *Evaluation of micro-aeration effect on microbial community structure in anaerobic digesters, in relation with desulfurization performance*. XI Latin American Workshop and Symposium on Anaerobic Digestion. La Habana, Cuba, 24.-27.11.2014

Borges da Fonseca, M., Vergara, M. [2014]. *Assessing mechanical-biological treatment towards strategy for waste management in Belo Horizonte*. International Solid Waste Association (ISWA) World Congress 2014. São Paulo, Brazil, 8.-11.09.2014