

Technologies for the Treatment and Recovery of Nutrients from Industrial Wastewater

Part of the Advances in Environmental Engineering and Green Technologies Book Series

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Description:

The production of wastewater from various human and industrial activities has a harsh impact on the environment. Without adequate treatment, the disposal of this wastewater poses a threat to the quality of water globally.

Technologies for the Treatment and Recovery of Nutrients from Industrial Wastewater investigates emergent research and best practices within the field of wastewater management. Highlights novel technological tools in wastewater treatment, effective nutrient removal technologies, and innovative solutions to quality water preservation practices.

Readers:

This book is a critical reference source for professionals, scientists, academics, and students.

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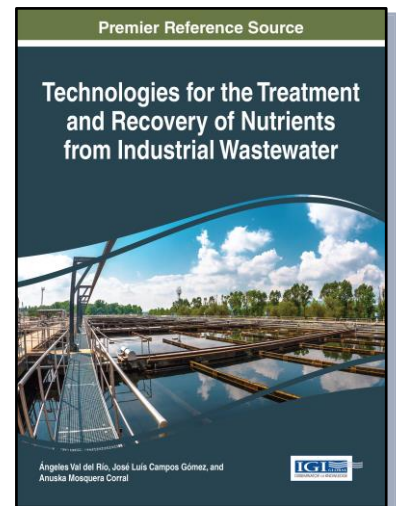
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Angeles Val del Rio received the Ph.D. in Chemical and Environmental Engineering in 2012 at the University of Santiago de Compostela (USC) on the topic of aerobic granular systems for wastewater treatment. Currently, she is a post-doctoral researcher in the Group of Environmental Engineering and Bioprocesses at USC. Her research activities are focused on the application of biological processes (nitrification, anammox, anaerobic digestion, etc.) operated in suspended or biofilm (aerobic granular sludge) reactors for the treatment of urban and industrial wastewater.

José Luis Campos Gomez, Ph.D. in Chemical Sciences, Dep. of Chemical Engineering, Univ. of Santiago de Compostela (June, 2000). His present position is teaching and research assistant at University Adolfo Ibáñez (Chile) (since 2014). During the first years (1994-2001), he has worked in the field of nitrogen removal from industrial wastewater, optimization of aquaculture systems and minimization of sludge production. From 2001, his research is focused on two main topics: aerobic granulation, in order to improve the activated sludge systems, and anammox process to remove ammonia from wastewater with a low C/N ratio. He has participated and/or supervised several projects and contracts with industries where industrial and pilot plants were applied and new technologies were developed to management and treat different kinds of wastewater and sludge.

Anuska Mosquera-Corral, Associate Professor at the University of Santiago de Compostela (USC) since 2007. Ph.D. in Chemical Sciences from the USC in 1998 focused on the nitrogen removal from industrial effluents. Postdoctoral researcher, at the TU Delft (The Netherlands) in 2000-2001, where she specialized in aerobic granular biomass and biofilm systems. Since 2001, in the USC, she worked extensively in aerobic granular reactors to remove organic matter (COD) and nitrogen from industrial wastewater and on the application of autotrophic denitrification (anammox, denitrification with sulphur compounds) to effluents with low COD content. Then in 2005, she began applying the molecular biology techniques (FISH and DGGE) for the identification of bacterial populations in bioreactors. In 2011, she began the research line of biopolymers (polyhydroxyalkanoates) production from liquid wastes using mixed cultures.

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