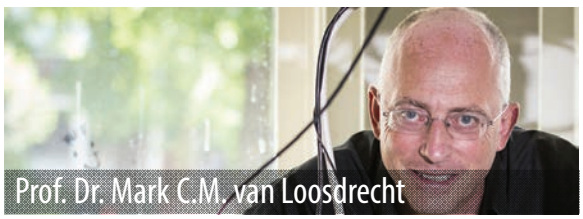
Contributors

Carlos M. Lopez-Vazquez	UNESCO-IHE Institute for Water Education, The Netherlands	1. 2.
Damir Brdjanovic	UNESCO-IHE Institute for Water Education, The Netherlands	1. 2.
Eldon R. Rene	UNESCO-IHE Institute for Water Education, The Netherlands	2.
Elena Ficara	Milan University of Technology, Italy	2.
Elena Torfs	Université Laval, Canada	6.
Eveline I.P. Volcke	Ghent University, Belgium	4.
George A. Ekama	University of Cape Town, South Africa	3.
Glen T. Daigger	University of Michigan, United States of America	6.
Gürkan Sin	Technical University of Denmark, Denmark	5.
Henri Spanjers	Delft University of Technology, The Netherlands	3.
Holger Daims	University of Vienna, Austria	8.
Ilse Y. Smets	Catholic University of Leuven, Belgium	6.
Imre Takács	Dynamita, France	6.
Ingmar Nopens	Ghent University, Belgium	6.
Jeppe L. Nielsen	Aalborg University, Denmark	7.
Jiři Wanner	University of Chemistry and Technology Prague, Czech Republic	7.
Juan A. Baeza	Universitat Autònoma de Barcelona, Spain	5.
Kartik Chandran	Columbia University, United States of America	4.
Krist V. Gernaey	Technical University of Denmark, Denmark	5.
Laurens Welles	UNESCO-IHE Institute for Water Education, The Netherlands	2.
Mads Albertsen	Aalborg University, Denmark	8.
Mari K.H. Winkler	University of Washington, United States of America	6.
Mark C.M. van Loosdrecht	Delft University of Technology, The Netherlands	1. 2. 4.
Mathieu Spérandio	Institut National des Sciences Appliquées de Toulouse, France	3.
Morten S. Dueholm	Aalborg University, Denmark	8.
Nancy G. Love	University of Michigan, United States of America	2.
Per H. Nielsen	Aalborg University, Denmark	1. 7. 8.
Peter A. Vanrolleghem	Université Laval, Canada	3. 4. 6.
Piet N.L. Lens	UNESCO-IHE Institute for Water Education, The Netherlands	2.
Rasmus H. Kirkegaard	Aalborg University, Denmark	8.
Robert J. Seviour	La Trobe University, Australia	7.
Sebastiaan C.F. Meijer	Yuniko BV, The Netherlands	5.
Sophie Balemans	Ghent University, Belgium	6.
Søren M. Karst	Aalborg University, Denmark	8.
Sylvie Gillot	IRSTEA, France	4.
Tessa P.H. van den Brand	KWR Watercycle Research Institute, The Netherlands	2.
Tommaso Lotti	Milan University of Technology, Italy	2.
Yves Comeau	École Polytechnique de Montréal, Canada	2.

Chapter author
Chapter reviewer

About the editors

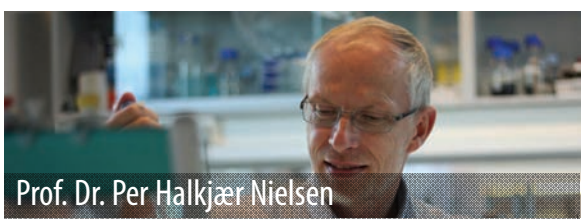


Prof. Dr. Mark C.M. van Loosdrecht

Mark C.M. van Loosdrecht is a well-renown scientist recognised for his significant contributions to the study of reducing energy consumption and the footprint of wastewater treatment plants through his patented and award-winning technologies Sharon®, Anammox® and Nereda®. His main work focuses on the use of microbial cultures within the environmental process-engineering field, with a special emphasis on nutrient removal, biofilm and biofouling. Currently he is a full professor and Group Leader of Environmental Biotechnology at TU Delft. A fellow of the Royal Dutch Academy of Arts and Sciences (KNAW), the Netherlands Academy of Technology and Innovation (AcTI) and the International Water Association (IWA), Professor van Loosdrecht has won numerous prestigious awards. His research interests include granular sludge systems, microbial storage polymers, wastewater treatment, gas treatment, soil treatment, microbial conversion of inorganic compounds, production of chemicals from waste, and modelling. Apart from his other achievements, he has published over 500 papers, supervised 65 PhD students so far and is an honorary professor at the University of Queensland. He is also currently the Editor-in-Chief for Water Research and Advisor to IWA Publishing.

Dr. Carlos M. Lopez-Vazquez

Carlos M. Lopez-Vazquez is Associate Professor in Wastewater Treatment Technology at UNESCO-IHE Institute for Water Education. In 2009 he received his doctoral degree on Environmental Biotechnology (cum laude) from Delft University of Technology and UNESCO-IHE Institute for Water Education. During his professional career, he has taken part in different advisory and consultancy projects for both public and private sectors concerning municipal and industrial wastewater treatment systems. After working for a couple of years in the Water R&D Department of Nalco Europe on industrial water and wastewater treatment applications, he re-joined UNESCO-IHE's Sanitary Engineering Chair Group in 2009. Since then, he has been involved in education, capacity building and research projects guiding dozens of MSc and several PhD students. By applying mathematical modelling as an essential tool, he has a special focus on the development and transfer of innovative and cost-effective wastewater treatment technologies to developing countries, countries in transition and industrial applications.



Prof. Dr. Per Halkjær Nielsen

Per H. Nielsen is a full professor at the Department of Chemistry and Bioscience at Aalborg University, Denmark where he heads the multidisciplinary Centre for Microbial Communities. He is also a visiting scientist at the Singapore Centre on Environmental Life Sciences Engineering, Nanyang Technological University, Singapore. Prof. Nielsen's research group has been active in environmental biotechnology for over 25 years, focusing on the microbial ecology of biological wastewater treatment, bioenergy production, bioremediation, biofilms, infection of implants and the development of system microbiology approaches based on new sequencing technologies. He chaired the IWA specialist group Microbial Ecology and Water Engineering for eight years (2005-2013) and is Chair of the IWA BioCluster. He is a Fellow of the Danish Academy of Technical Sciences (ATV) and the International Water Association (IWA) and has received several prestigious awards. He has published more than 230 peer-reviewed publications and supervised 25 PhD students. His main research interest is microbial ecology in water engineering, particularly related to wastewater treatment where he has developed and applied several novel methods to study uncultured microorganisms, e.g. by using next-generation sequencing technologies. He is the initiator and responsible for the MiDAS field guide open resource for wastewater microbiology.

Prof. Dr. Damir Brdjanovic

Damir Brdjanovic is Professor of Sanitary Engineering at UNESCO-IHE and Endowed Professor at Delft University of Technology in the Environmental Biotechnology Group. Areas of his expertise include pro-poor and emergency sanitation, faecal sludge management, urban drainage, and wastewater treatment. He is a pioneer in the practical application of models in wastewater treatment practice in developing countries. He invented the Shit Killer® device for excreta management in emergencies, the award-winning eSOS® Smart Toilet and associated software eSOS View®, with funding by the Bill & Melinda Gates Foundation (BMGF). He has initiated the development and implementation of innovative didactic approaches and novel educational products (including e-learning) at UNESCO-IHE. In 2015, together with the BMGF, he founded the Global Faecal Sludge Management e-learning Alliance. Currently his chair group consists of ten staff members, three post-doctoral fellows and 22 PhD students. In addition, in excess of 100 MSc students have graduated under his supervision so far. Prof. Brdjanovic has a sound publication record, is co-initiator of the IWA Journal of Water, Sanitation and Hygiene for Development, and is the initiator, author and editor of five books in the wastewater treatment and sanitation field. In 2015 he became an International Water Association Fellow.