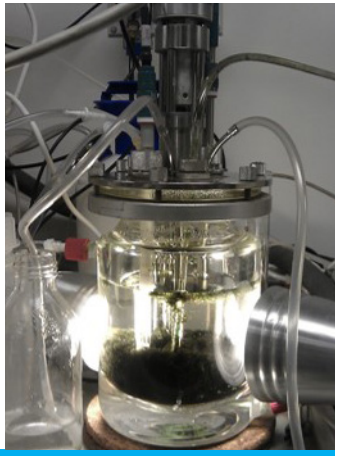

1st IWA Conference on Algal Technologies for Wastewater Treatment and Resource Recovery

UNESCO-IHE, Delft, The Netherlands | March 16-17, 2017

We are pleased to announce the 1st IWA Conference on Algal Technologies for Wastewater Treatment and Resource Recovery. Bringing together scientists, algaeneers and practitioners to exchange the latest knowledge on the application of algae for wastewater treatment and resource recovery.

Wastewater treatment using algae was already introduced more than 50 years ago. However, algae have only been used relatively recently to produce biofuels, food supplements or green pharmaceuticals.

FOR WHOM?

Wastewater engineers using algae can benefit from knowledge coming from the use of algae to produce biofuels, food supplements or green pharmaceuticals. Likewise, wastewater as a cheap source of nutrients and inorganic carbon is promising for the production of algae-based commodities. For example, algae based treatment systems in developing world tropical countries may reduce wastewater treatment costs via recovery of inherent resources.

Specialists will meet during the conference to discuss issues such as how reactor design should be adjusted when treating wastewater and growing algae simultaneously. Or how the oxygen consumption by bacteria feeding on substrates in the wastewater affects algal growth. Only recently, respirometry was introduced to study these mixed algal-bacterial ecosystems, and the technique is rapidly developing. Tools to influence mixed culture ecology are likely to gain the interest of the scientific community, because of enhanced substrate conversion, granulation or other specific culture characteristics.

LATEST SCIENTIFIC DEVELOPMENTS

The conference offers an overview and discussion platform of the latest scientific developments and practical applications in these fields.

UNESCO-IHE Institute for Water Education

WAGENINGEN UR For quality of life

wetsus

IWA the international water association

THEMES AND APPLICATIONS

- High rate algae ponds, photo-activated sludge and Microalgae-Bacterial flocs
- Photo-bioreactor design
- Phototrophic biofilms and granules
- Experimental methods, algal respirometry, monitoring, modelling and process control
- Algal microbial interactions and mixed culture ecology
- Use of artificial light
- Macroalgae-based technologies
- Multitrophic integrated aquaculture
- Algae based wastewater treatment
- Biodiesel and biogas production from algae grown in wastewater
- Removal of heavy metals by algae
- Waste gas treatment and greenhouse gas capture
- Algae downstream processing to valuable products
- Algae-based nutrient removal and recovery
- Algae systems in a circular economy

TIMELINE

Call for abstracts	23 August 2016
Registration open	1 September 2016
Abstract submission	1 November 2016
Registration early-bird	15 January 2017
Submission of outline-papers and power point presentations	10 March 2017
Conference	16-17 March 2017

ORGANISING COMMITEE

UNESCO-IHE Institute for Water Education
Peter van der Steen (Chair)
Angélica Rada
Carlos Lopez Vazquez
Jack van de Vossenberg

WETSUS
Sebastián Canizales Gómez
Anthony Verschoor

Wageningen University
Hardy Temmink

KEY NOTE SPEAKERS

Rene Wijffels, Professor Bioprocess Engineering, Wageningen University, Wageningen, The Netherlands

Frank Rogalla, Director of Innovation and Technology, FCC Aqualia, Spain.

SCIENTIFIC COMMITTEE

- Dr. Bilassé Zongo, Polytechnic University of Bobo-Dioulasso, Burkina Faso
- Prof. Diederik Rousseau, Ghent University, Belgium
- Prof. El Hamouri Bouchaib, Institut Agronomique et Vétérinaire, Morocco
- Prof. German Buitron, National Autonomous University of Mexico, Mexico
- Prof. Grietje Zeeman, Wageningen University, the Netherlands
- Dr. Günter Langergraber, University of Natural Resources and Life Sciences, Austria (IWA Specialist group Resource Oriented Sanitation)
- Dr. Ignacio de Godos, University of Valladolid, Spain
- Prof. Jules van Lier, University of Technology Delft/UNESCO-IHE, the Netherlands
- Dr. Jean-Philippe Steyer, INRA Laboratoire de Biotechnologie de l'Environnement, France
- Dr. Ladislav Nedbal, Forschungszentrum Jülich, Germany
- Dr. Marcel Janssen, Wageningen University, the Netherlands
- Prof. Miguel Peña, University of Valle, Colombia
- Dr. Miller Alonso Camargo-Valero, University of Leeds, UK (Specialist Group Wastewater Pond Technology)
- Dr. Raul Munoz, University of Valladolid, Spain
- Dr. Sarina Ergas, University of South Florida, USA
- Dr. Sofie Van Den Hende, Escuela Superior Politécnica del Litoral, Ecuador
- Dr. Tania Fernandes, Netherlands Institute of Ecology, Netherlands
- Prof. Thammarat Koottatep, Asian Institute of Technology, Thailand

CONTACT

For more information about the conference visit www.unesco-ihe.org/algaltechnologies