



# Chaïm De Mulder

## Experience

15/10/2014– present **Research Assistant**, Ghent University, Faculty of Bioscience engineering, Department of Mathematical Modeling, Statistics and Bioinformatics, BIOMATH group (Model based bioprocess analysis and optimisation).

### Projects



#### Other responsibilities:

- Active member of the Belgian Division of the International Water Association (B-IWA): maintenance of website, LinkedIn- and Twitter-account.
- Coordinator of the first B-IWA nocturnal ([www.b-iwa.be/nocturnal](http://www.b-iwa.be/nocturnal)), May 19<sup>th</sup> 2015.
- Co-organizer of the second B-IWA nocturnal (), May 18<sup>th</sup> 2016.
- Co-organizer of an IWA YWP Workshop (Aug 29 - 30, 2015)
- Assist in the courses

15/7/2013– 6/9/2013 **Internship in combination with master thesis**, DC Water, Research and Development Department, Washington DC, USA.



**Project abstract:** Batch experiments were conducted under different conditions to obtain AOB and NOB oxygen half-saturation constants through parameter estimation using a specific model describing the experimental procedure. Using the obtained values, relations that indicate conditions under which AOB would outcompete NOB were sought for, potentially making energy-efficient N-removal through the anammox process possible.

5/7/2012– 31/8/2012 **IAESTE Internship**, Aalto University, Department of Biotechnology and Chemical Technology, Espoo, Finland.



**Project abstract:** Catalysts used in the dehydration of xylose to furfural were characterized using micro-scale reactors, titration experiments and sugar-adsorption measurements.

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Born 27/3/1991 in Ghent

## Education

2012–2014 **Master in Bio-Science Engineering: Environmental Technology, Ghent University.**

**MSc Thesis:** Impact of intrinsic and extrinsic parameters on the oxygen kinetic parameters of Ammonia and Nitrite Oxidizing Bacteria

**Research group:** LabMET (Laboratory for Microbial and Environmental Technolgy) & BIOMATH (Model-based Bioprocess Analysis and Optimisation)

2009–2012 **Bachelor in Bio-Science Engineering: Environmental Technology, Ghent University.**

**BSc Thesis:** Integrated grey water systems in city renovation and development projects

**Department:** Biosystems engineering

## Extra-curricular

### IAESTE

2015-2016 LC Ghent Vice-President & Summer Reception Officer

Attending conferences, jobraising, support within regional IAESTE groups (Connect Region), general support. Organizing activities for incoming trainees.

2014-2015 LC Ghent supporting member & Summer Reception Officer

Design of IAESTE T-shirts, presenting IAESTE to companies, jobraising. Organizing activities for incoming trainees.

2013-2014 LC Ghent Secretary

Responsible for making notes during meetings and writing the meeting reports. Participating in jobraising.

### Sports

2006-present Athletics (recreational and competition)

### General interests

Music, climate related, environmental and social issues, Scandinavian culture

## Skills

- Software
  - o Advanced: L<sup>A</sup>T<sub>E</sub>X, WEST (Mike by DHI), Python
  - o Basic: MS Office, , OpenFOAM, Matlab - Simulink, Inkscape, command line tools

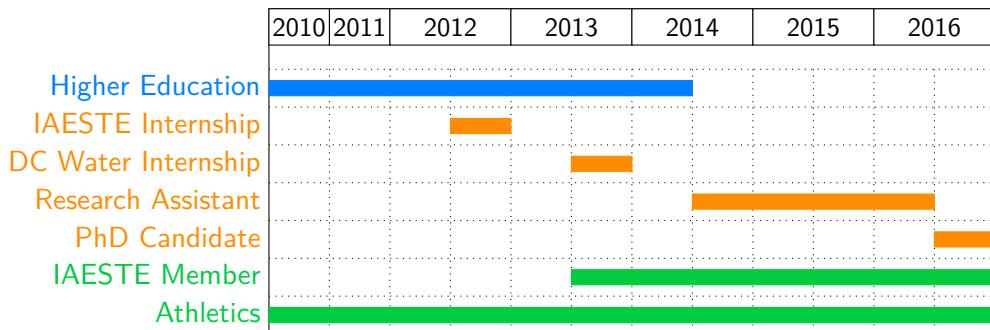
- Soft skills
  - o Social and open-minded
  - o Enthusiastic, engaged, motivated

- Languages
  - o Native: Dutch
  - o Fluent: English
  - o Basic: French, Swedish

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## References

- U. Rehman, Y. Amerlinck, M. Arnaldos, J. Porro, **De Mulder, Chaïm & I. Nopens** (2015). Computational fluid dynamic modeling of nitrous oxide in a full scale WWTP. In *Watermatex, 9<sup>th</sup> IWA Symposium on system analysis and integrated water management*. IWA, Gold Coast, Queensland, Australia.
- D. Seuntjens, B. Bundervoet, H. Mollen, **De Mulder, Chaïm**, E. Wypkema, A. Verliefde, I. Nopens, J. Colsen & S. E. Vlaeminck (2015). Energy efficient treatment of A-stage effluent: pilot-scale experiences with shortcut nitrogen removal. In *IWA Nutrient removal and recovery conference, papers*. IWA, Gdansk, Poland.
- D. Seuntjens, **De Mulder, Chaïm**, H. De Clippeleir, S. Murthy, Z. Li, K. Chandran, I. Nopens & S. E. Vlaeminck (2014). Investigating AOB and NOB kinetic parameters for oxygen under moderate climate wastewater conditions. In *ENC, 19<sup>th</sup> European Nitrogen Cycle Conference, Abstracts*. Ghent, Belgium.