Bart Van der Bruggen

Born 14.10.1972 in Asse, Belgium

Belgian nationality

KU Leuven, Department of Chemical Engineering,

ProcESS – Process Engineering for Sustainable Systems

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Education:	Chemical Engineer, ir., KU Leuven, 1995
	PhD in Applied Sciences, Chemical Engineering, KU Leuven, 20 Sept. 2000
	Dissertation:
	"Removal of organic molecules from aqueous solution by nanofiltration"
Post-docs:	2000-2001: Research Council KU Leuven
	2001-2004: FWO-Vlaanderen (Fund for Scientific Research – Flanders)
	Visiting scholar in the University of North Carolina (UNC-Chapel Hill, April-June 2002) and Istituto per la Tecnologia delle Membrane (ITM-CNR, Cosenza, Italy, March-September 2003)
Positions:	2002-2004: part-time lecturer, KU Leuven, Belgium
	2004-2006: lecturer, KU Leuven, Belgium
	Visiting researcher in Universita della Calabria and ITM-CNR, Italy in March-April 2005, and in Lappeenranta University of Technology (LUT), Lappeenranta, Finland in July-August 2007
	2006-2009: senior lecturer, KU Leuven, Belgium
	May 2010: Visiting professor, Universidad de Cantabria, Spain
	June 2010: Visiting professor, Université de Rennes 1, France
	October 2013: Full professor, KU Leuven
Current position:	(since 01/10/09): full time research professor, KU Leuven, Belgium
	Visiting professor, Dalian University of Technology, China (2013-2014)
	Extraordinary Professor at Tshwane University of Technology, Pretoria, South Africa (since April 2014)
Other functions:	- *Founding President of the World Association of Membrane Societies* (WA-MS) from 2017 to 2020;
	- *President of the European Membrane Society* (2013-2017); Member of the *European Membrane Society (EMS) Council* from 2007 to 2011; elected Vice-President from 2009 to 2011;
	- Editor of *Separation and Purification Technology* (Elsevier) with IF 3.299 (since Jan. 2009);
	- Associate Editor (2007-2012) and Executive Editor (since 2012) of Journal *of Chemical Technology and Biotechnology* (Wiley) with IF 2.738;
	- Associate Editor of *Applied Water Science* (Springer) and *Journal of Membrane Science and Research*;

- Member of the Editorial Board of Journal of Membrane Science, Journal of Applied Polymer Science, Industrial & Engineering Chemistry Research, Membrane Water Treatment, Desalination & Water Treatment, Applied Sciences, and Archives of Environmental Protection.
- Member of the *EPSRC College*, UK (Engineering and Physical Sciences Research Council) from 2009 to 2012.
- Regular reviewer for scientific funding bodies in EU, France, Portugal, UK, USA, Poland, Romania, Singapore, the Netherlands, Slovenia, Greece and Finland.
- Board Member of B-IWA (Belgian Committee of the International Water Association) (2001-2013);

Expertise: Separation techniques, in particular membrane processes including electrodialysis, electrodriven membrane processes, and pressure driven membrane processes; process intensification; physico-chemical treatment of process water and waste water

Awards: PhD Honoris Causa at the University "Dunarea de Jos" of Galati, Romania (2013).

Winner of the Prince Sultan Bin Abdulaziz International Prize for Water, 4th Award (2008-2010) in the 3rd Branch – Alternative (Non-traditional) Water Resources.

Laureate of the Koninklijke Vlaamse Academie van België voor Wetenschappen en Kunsten (Royal Flemish Academy of Belgium for Sciences and Arts) in the class of Nature Sciences, 2006.

Winner of the Annual Award of the European Membrane Society (EMS) for the best journal paper on membrane science and engineering published in 2002.

Winner of the Textile Innovation Award 2001 (awarded by the federation of the Flemish textile industry, Centexbel).

Publications: **600** in international peer-reviewed journals
22,000 citations
h-index **77** (February 2021)
30 chapters in books
2 books edited

PhD theses: Promoter of 46 finished PhD theses and 27 ongoing PhD theses (of which 6 are co-supervised outside the group).

Services: I am active reviewer for 99 different ISI journals (a list can be provided). The number of reviews per journal ranges between 1 and 70 during the last 10 years. I am active in development collaboration projects in Ethiopia, Vietnam, Cuba, South Africa, Uganda and Tanzania.

Teaching:

- Water Technology (3 ECTS 100%) (since 2002)

  Contents: Technical aspects of the production of process water and drinking water: unit operations, water quality, sustainable use of water.
- Waste Water Treatment (3 ECTS co-teaching 50% + 2 ECTS 100%) (since 2004)

  Contents: Physico-chemical treatment of waste water: primary, tertiary treatment, water reuse.
- Separation processes (6 ECTS, co-teaching 50%) (since 2004)

  Contents: Separation processes used in process technology: distillation, extraction, adsorption, leaching.

- Advanced Separation Processes (3 ECTS 100%) (since 2004)

  Contents: membrane processes, advanced distillation, hybrid separation processes.

- Air Pollution & Control (3 ECTS, co-teaching 50%) (since 2012)

  Contents: Air pollution remediation technologies, including incineration, condensation, adsorption, absorption, membrane separation, bioremediation, and special focus on CO_2, SO_2 and NO_x.

International collaborations:

- in Europe: Université de Rennes 1 (France), Universidad Rey Juan Carlos (Spain), Universidad de Cantabria (Spain), University of Calabria (Italy), University of Galati (Romania), Czech Membrane Platform (Czech republic), Institute of Chemical Technology (Czech Republic), Karlsruhe Institute of Technology (Germany), Lappeenranta University of Technology (Finland), Lithuanian Energy Institute (Lithuania)
- in Asia: Tsinghua University (China), Zhejiang University of Technology (China), Qingdao Institute of Bioenergy & Bioprocess Technology - Chinese Academy of Sciences (China), University of Science and Technology of China (China), Dalian University of Technology (China), Harbin Institute of Technology (China), Hanoi University of Civil Engineering (Vietnam), Hanoi University of Science (Vietnam), INHA University (Korea)
- in the America's: New Jersey Institute of Technology (USA), Northeastern University in Boston (USA), McGill University (Canada), Universidad Central “Marta Abreu” de Las Villas (Cuba), CONICET-UTN and eUniversidad Nacional del Litoral (Argentina)
- in Africa: Tshwane University of Technology (South Africa), Jimma University (Ethiopia), Mekelle University (Ethiopia), Mountains of the Moon University (Uganda), Nelson Mandela African Institute of Technology (Tanzania)

PhD theses supervised as promoter in the last 3 years:

1. Dessalegn Dadi Olani (February 2018). Valorization of coffee byproducts via biomass conversion technologies. PhD thesis, KU Leuven, Belgium.
2. Jing Wang* (April 2018). New design routes for polymeric composite nanofiltration membranes with high performance. PhD thesis, KU Leuven, Belgium.
3. Violet Kisakye (August 2018). Development of a technology to ensure sufficient quantity and quality of rainwater for rural households. PhD thesis, KU Leuven, Belgium.
4. Junyong Zhu* (November 2018). Preparation of advanced composite membranes through surface functionalization for nanofiltration. PhD thesis, KU Leuven, Belgium.
5. Jian Li* (November 2018). Porous ion exchange membranes with improved monovalent selectivity. PhD thesis, KU Leuven, Belgium.
6. Shushan Yuan* (December 2018). Advanced membranes fabricated by 3d printing for oil water separation and from novel polymers for organic solvent nanofiltration. PhD thesis, KU Leuven, Belgium.
7. Shadi Hamdan (February 2019). The potential of using electromigration fences against seawater intrusion. PhD thesis, KU Leuven, Belgium.
8. Hezron Mwakabona (January 2020). A ‘Smart’ Approach on Fluoride Removal: Detection in Water Sources and Removal with Biomass. PhD thesis, KU Leuven, Belgium.
9. Anita Rugaika (September 2020). An integrated method for phosphorus recovery based on a fluidized bed reactor and constructed wetland systemsPhD thesis, KU Leuven, Belgium.
10. Yi Li* (December 2020). High performance thin film nanofibrous composite membrane for organic solvent nanofiltration. PhD thesis, KU Leuven, Belgium.
11. Bin Liu* (January 2021). Performance of advanced oxidation and enhanced coagulation pretreatment combined with low pressure driven membrane process. PhD thesis, KU Leuven, Belgium.
12. Hoang Minh Trang (January 2021). Novel application of an integrated system to remove/recover heavy metals from aqueous environment. PhD thesis, KU Leuven, Belgium.

(* successful PhD thesis with CSC support)

Signature: