

Curriculum Vitae Georgios Bellos

General Information

Full name Georgios Bellos
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Address Technologiepark 125, 9052 Zwijnaarde, Belgium

Career

2024-present **Guest Professor**, Ghent University, Belgium
Teaching Chemical Process Design, and Industrial Courses.
Research on low carbon technologies

2011-present Various R&D roles from Associate to **Principal Research Scientist**,
Dow, Netherlands. Mentoring colleagues, New decarbonization and
circular technologies. Steering team member of Employees Resources
Group. Implementing new technologies in hydrogenation and olefins
plants in different Dow sites in Europe and North America. Data analytics
and visualization

2008-2011 **Senior Engineer**, KBC Process Technology, Netherlands.
Feasibility studies, improvement projects on refineries at different
geographies

2006-2008 **Process Engineer**, Motor Oil Hellas, Greece
Focused on mild hydrocracking, hydrotreatment, fluid catalytic cracking,
distillation and few months relocation at Technip, Italy

2004-2005 **Post-doc associate**, IFPEN, France
Chemical Reaction Engineering for hydrotreaters

Education

1999-2004	PhD in Chemical Reaction Engineering. simulation of the operation of three phase petroleum hydrotreaters, National Technical University of Athens, Greece
1994-1999	Bachelor and Master of Science in Chemical Engineering. National Technical University of Athens, Greece

List of Publications and patent applications

1. Melissa N. Dunkle, Cesare Benedetti, Pascal Pijcke, Ramon van Belzen, Mbambo Boekwa, Marios Mitsios, Matthijs Ruitenbeek, **George Bellos**, Comparing different methods for olefin quantification in pygas and plastic pyrolysis oils: Gas chromatography-vacuum ultraviolet detection versus comprehensive gas chromatography versus bromine number titration, Journal of Chromatography A, Volume 1713, 2024, 464569, ISSN 0021-9673, <https://doi.org/10.1016/j.chroma.2023.464569>.
2. Melissa N. Dunkle, Pascal Pijcke, Bill Winniford, **George Bellos**, Quantification of the composition of liquid hydrocarbon streams: Comparing the GC-VUV to DHA and GCxGC, Journal of Chromatography A, Volume 1587, 2019, Pages 239-246, ISSN 0021-9673, <https://doi.org/10.1016/j.chroma.2018.12.026>.
3. S. Luijten, **G. Bellos** "Robot inspection coils" European Ethylene Producers Conference, Dubrovnik 2018
4. Van Geem, Djokic, Faravelli, **Bellos**, van Goethem, Jacobi et al. "Improof: integrated model guided process optimization of steam cracking furnaces" AIChE Spring Meeting EPC, Orlando 2018 ([129f](#)) [AIChE](#)
5. Luijten, **Bellos** "Condition Based Recoil" AIChE Spring Meeting EPC, Orlando 2018 ([128d](#)) [AIChE](#)
6. M. R. Djokic, K. M. Van Geem, G. J. Heynderickx, S. Dekeukeleire, S. Vangaever, F. Battin-Leclerc, **G. Bellos**, W. Buysschaert, B. Cuenot, T. Faravelli, M. Henneke, D. Jakobi, P. Lenain, A. Munoz, J. Olver, M. Van Goethem, P. Oud. IMPROOF: Integrated Model Guided Process Optimization of Steam Cracking Furnaces. Smart Innovation, Systems and Technologies vol. 68, pp. 589-600, 2017
7. Van Geem, Leclerc, **Bellos**, Cuenot, Djokic, Faravelli, Henneke, Jakobi, Lenain, Munoz, Olver, Van Goethem, "IMPROOF: Integrated model guided process optimization of steam cracking furnaces" AIChE Spring Meeting EPC, San Antonio 2017 ([124b](#)) [AIChE](#)
8. Wang, **Bellos**, Korf, Li, Pham, Siddoway, Brayden, Martinez, Stears, "Kinetic Study of Thermal Decomposition of N,N-Diethylhydroxylamine (DEHA) in Steam Crackers" AIChE Spring Meeting EPC, San Antonio 2017 ([124f](#)) [AIChE](#)

9. L.E. Kallinikos, **G.D. Bellos**, N.G. Papayannakos, Study of the catalyst deactivation in an industrial gasoil HDS reactor using a mini-scale laboratory reactor, *Fuel*, Volume 87, Issue 12, 2008, Pages 2444-2449, ISSN 0016-2361, <https://doi.org/10.1016/j.fuel.2008.03.007>.
 10. **G.D. Bellos**, K.P. Gotsis, N.G. Papayannakos, The gas-liquid contacting effect on the operation of small scale upflow hydrotreaters, *Catalysis Today*, Volume 127, Issues 1-4, 2007, Pages 103-112, ISSN 0920-5861, <https://doi.org/10.1016/j.cattod.2007.05.004>.
 11. **G.D. Bellos**, L.E. Kallinikos, C.E. Gounaris, N.G. Papayannakos, Modelling of the performance of industrial HDS reactors using a hybrid neural network approach, *Chemical Engineering and Processing: Process Intensification*, Volume 44, Issue 5, 2005, Pages 505-515, ISSN 0255-2701, <https://doi.org/10.1016/j.cep.2004.06.008>.
 12. G.D. Stefanidis, **G.D. Bellos**, N.G. Papayannakos, An improved weighted average reactor temperature estimation for simulation of adiabatic industrial hydrotreaters, *Fuel Processing Technology*, Volume 86, Issue 16, 2005, Pages 1761-1775, ISSN 0378-3820, <https://doi.org/10.1016/j.fuproc.2005.04.002>.
 13. **G.D. Bellos**, K.P. Gotsis, P.A. Galtier, N.G. Papayannakos, The gas-liquid contacting effects on liquid dispersion in pilot scale upflow hydrotreaters, *Chemical Engineering Science*, Volume 59, Issue 7, 2004, Pages 1415-1422, ISSN 0009-2509, <https://doi.org/10.1016/j.ces.2004.01.012>.
 14. **G.D. Bellos**, N.G. Papayannakos, The use of a three phase microreactor to investigate HDS kinetics, *Catalysis Today*, Volumes 79-80, 2003, Pages 349-355, ISSN 0920-5861, [https://doi.org/10.1016/S0920-5861\(03\)00062-2](https://doi.org/10.1016/S0920-5861(03)00062-2).
 15. A.M. Thanos, **G.D. Bellos**, P.A. Galtier, N.G. Papayannakos, Bed length effect on the liquid phase non-idealities and holdup in pilot scale upflow reactors, *Catalysis Today*, Volumes 79-80, 2003, Pages 235-240, ISSN 0920-5861, [https://doi.org/10.1016/S0920-5861\(03\)00010-5](https://doi.org/10.1016/S0920-5861(03)00010-5).
 16. **G. Bellos**, P. Galtier, N. Papayannakos, "Laboratory reactor for studying gaseous and liquid phase reactions", US7588734B2
 17. HangYao Wang, Jorge H. Pazmino, Yu Liu, **Georgios Bellos**, « Methods for reducing formation of carbon disulfide in steam cracking processes to produce olefins », EP3933012A1
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