



Education

- **École Polytechnique de Montréal, Montréal, QC, Canada** (2011)
Ph.D. Degree, Department of Chemical Engineering
Thesis: “Hydrodynamique des jets de gaz orientés vers le haut et vers le bas dans les lits fluidisés gaz-solide”

- **École Polytechnique de Montréal, Montréal, QC, Canada** (1998)
B.Eng. Degree, Department of Chemical Engineering
Concentration: Environment

Research Interests

- Fluidized bed hydrodynamics
- Experimental Techniques in Multiphase Systems
- Energy processes (gasification and combustion)
- Chemical reaction engineering
- Process design, development and optimization
- PEM Fuel cells (water management)

Work Experience

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| • École Polytechnique de Montréal, Montréal, QC, Canada | Research Associate | 2013- |
| • École Polytechnique de Montréal, Montréal, QC, Canada | Postdoc | 2011-2013 |
| • Self-employed, Mississauga, ON, Canada | Consulting | 2009-2010 |
| • FPIinnovations, Prince George, BC, Canada | Research Engineer | 2007-2009 |
| • University of British Columbia (Ballard Power Systems), Vancouver, BC, Canada | Invited scholar | 2004-2006 |
| • E.I. duPont de Nemours and Company, Wilmington, DE, USA | Engineer intern | 1998-1999 |

Journal Publications

M. Talebi-Esfandarani, S. Rousselot, M. Gauthier, P. Sauriol, G. Liang, and M. Dollé, 2015, “LiFePO₄ synthesized via melt synthesis using low-cost iron precursors”, *Journal of Solid State Electrochemistry*, article in press.

DOI:10.1007/s10008-015-3049-7.

- J. Shabaniyan, P. Sauriol, A. Rakib, and J. Chaouki, 2015, "Application of temperature and pressure signals for early detection of defluidization conditions", *Procedia Engineering*, 102, pp. 1006-1015.
DOI: 10.1016/j.proeng.2015.01.223.
- P. Sauriol, H. Cui, and J. Chaouki, 2013, "Jet Penetration Length from Upward and Downward Nozzles in Fluidized Beds", *Powder Technology*, 235, pp. 42-54.
DOI: 10.1016/j.powtec.2012.09.037.
- P. Sauriol, H. Cui, and J. Chaouki, 2012, "Gas-Solid Structure in the Vicinity of a Sparger Nozzle in a Fluidized Bed", *Powder Technology*, 228, pp. 131-140.
DOI: 10.1016/j.powtec.2012.05.008.
- H.T. Bi, P. Sauriol, and J. Stumper, 2010, "Two-phase flow distributors for fuel cell flow channels", *Particuology*, 8, pp. 582-587.
DOI: 10.1016/j.partic.2010.07.011.
- T. Yau, P. Sauriol, X. Bi, and J. Stumper, 2010, "Experimental Determination of Water Transport in Polymer Electrolyte Membrane Fuel Cells", *Journal of the Electrochemical Society*, 157, pp. B1310-B1320.
DOI: 10.1149/1.3456621.
- P. Sauriol, D.S. Nobes, X.T. Bi, J. Stumper, D. Jones, and D. Kiel, 2009, "Design and Validation of a Water Transfer Factor Measurement Apparatus for Proton Exchange Membrane Fuel Cells", *Journal of Fuel Cell Science and Technology*, 6, 041014, 13p.
DOI: 10.1115/1.3007900.
- R. Sotudeh-Gharebagh, J. Chaouki, and P. Sauriol, 2007, "An Experimental Study of Non-premixed Combustion in a Turbulent Fluidized-bed Reactor", *Fuel Processing Technology*, 88, pp. 847-858.
DOI: 10.1016/j.fuproc.2007.04.009.
- H. Cui, P. Sauriol, and J. Chaouki, 2003, "High Temperature Fluidized Bed Reactor: Measurements, Hydrodynamics and Simulation", *Chemical Engineering Science*, 58, pp. 1071-1077.
DOI: 10.1016/S0009-2509(02)00649-8.

Conference Publications

- P. Sauriol, A. Rakib, J. Shabaniyan, R. Jafari, D. Bai, and J. Chaouki, 2015, "Reduction of criteria air contaminants during co-combustion of coal with ReEngineered Feedstock™ (ReEF) in a bubbling fluidized bed combustor", in *Proceedings of the 22nd International Conference on Fluidized Bed Conversion*, Turku, Finland, June 14-17 2015.

J. Shabaniyan, P. Sauriol, A. Rakib, and J. Chaouki, 2014, "Characterization of gas-solid fluidization at high temperature by analysis of pressure signals", in Proceedings of the 11th International Conference on Fluidized Bed Technology, J. Li, F. Wei, X. Bao, and W. Wang (eds.), Beijing, China, May 11-14 2014, pp. 85-90.

P. Sauriol, H. Cui, and J. Chaouki, 2007, "Gas-Solid Structure in the Vicinity of a Sparger Nozzle in a Fluidized Bed", in Proceedings of the 12th International Conference on Fluidization – New Horizons in Fluidization Engineering, F. Berruti, X.(T.) Bi, and T. Pugsley (eds.), Vancouver, BC, Canada, May 13–17 2007, pp. 831–838.

P. Sauriol, G.-S. Kim, X.T. Bi, J. Stumper, and J. St-Pierre, 2005, "Comparison between PEMFC Water Management Model and in-situ Water Transfer Measurements", in AIChE Annual Meeting, Conference Proceedings, Cincinnati, Ohio, USA, October 30–November 4 2005, pp. 10899-10913.

P. Sauriol, X.T. Bi, J. Stumper, D.S. Nobes, and D. Kiel, 2005, "A Water Transfer Factor Measurement Apparatus for Polymer Electrolyte Membrane Fuel Cells", in Proceedings of the First International Symposium on Fuel Cell and Hydrogen Technologies, editor D. Ghosh, Calgary, Alberta, Canada, August 21–24 2005, pp. 35–50.

Book Chapter

T.C. Yau, P. Sauriol, X. Bi, and J. Stumper, "Chapter 8 – Water Transfer Factor Measurement", in PEM Fuel Cell Durability Handbook, Volume II – PEM Fuel Cell Diagnostic Tools, H. Wang, X.-Z. Yuan, and H. Li (eds), 2011, pp. 149–180.