POLYTECHNIQUE MONTRÉAL
LE GÉNIE EN PREMIÈRE CLASSE

Said Samih, B. Eng., Ph.D. Candidate

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Education

- **Polytechnique Montreal, Montreal, QC, Canada** (2010- present)

Ph.D. Degree, Department of Chemical Engineering
Thesis: "Development of a Fluidized Bed Thermogravimetric Anal7yzer: Application on Catalytic Coal Gasification"

- **École Mohammadia d'Ingénieurs, Rabat, Morocco** (2003)

B. Eng. Degree, Department of Industrial Process Engineering

Research Interests

- Process Design, Conception and Development
- Process Simulation with Aspen Hysys, Aspen Plus, and ProSim
- Techno-Economic Analysis and HAZOP Study
- Process Optimization and Experimental Design
- Biomass and Sloid Waste Conversion
- Pinch Analysis and Process Integration
- Chemical Reaction Engineering
- Pyrolysis, Gasification, and Combustion
- Development of Sustainable Processes
- Development of Innovative Micro Reactors
- Quality Control and Water treatment

Work Experience

• **Polytechnique Montreal,** Montreal, QC, Canada	Research Assistant	Sept. 2010- present
• **National Office of Electricity and Potable Water (ONEE)** , Rabat, Morocco	Quality Control Engineer	2009-2010
• **OCP Group**, Laâyoune, Morocco	Product Engineer	2008-2009

Expertise

- Process design, simulation and global training
- Control quality of potable water and water desalination by reverse osmosis
- Chemical processes simulation with ProSim, ASPEN and HYSYS

- Pinch Analysis and Process Integration
- Process and equipment design and development in lab and pilot scales
- Chemical reaction engineering and kinetic study
- Fluidization engineering, multiphase reactors and solid fuels conversion
- Experimental design and statistical analysis
- Material characterization and measurement techniques: Elemental and neutron activation analysis (NAA, Bomb Calorimeter, GC, multi gas FTIR, pressure transducers, Load cell, XRD and SEM
- Project management in multi-disciplined teams

Research Background

- Development of a fluidized bed thermogravimetric analyzer
- Coal pyrolysis, combustion and gasification in fluidized bed reactor
- Catalytic gasification of solid fuels in fluidized bed reactor
- Control quality of potable water
- Water desalination by reverse osmosis
- Development of thermal analyzers
- Carbon capture projects within Carbon Management Canada network
- Kinetic study of catalytic coal and solid fuels thermal upgrading
- Thermal treatment of solid waste and solid fuels

Teaching Experience

• **Process Design and Conception**, Polytechnique Montreal, Montreal, QC, Canada	Teaching Assistant	2013 - 2014
• **Transport Phenomena**, Polytechnique Montreal, Montreal, QC, Canada	Teaching Assistant	2012 - 2014
• **Unit Operations**, Polytechnique Montreal, Montreal, QC, Canada	Teaching Assistant	2012
• **Biomass Conversion**, Polytechnique Montreal, Montreal , QC, Canada	Teaching Assistant	2013

Journal Publications

Samih, S. and J. Chaouki, Development of a fluidized bed thermogravimetric analyzer. **AIChE Journal**, 2015. 61(1):p.84-89.
http://onlinelibrary.wiley.com/doi/10.1002/aic.14637/abstract

Conference Publications

- **Samih, S.** and J. Chaouki, Study of Catalytic Coal Gasificaton in Fluidized Bed Thermogravimetric Analyzer. GLS12, New York, USA, June 2015. http://www3.aiche.org/proceedings/Abstract.aspx?PaperID=402923
- **Samih, S.** and J. Chaouki, Development of a Fluidized Bed Thermo-Gravimetric Analyzer (FB-TGA): Application on Catalytic Coal Gasification. CMC Annual Conferences, Banff, Canada, June 2014. http://cmcghg.com/events/event/cmc-2014-annual-conference/
- **Samih, S.** and J. Chaouki, Development of a Fluidized Bed Thermo-Gravimetric Analyzer (FB-TGA). BioEnergy IV: Innovations in Biomass Conversion for Heat, Power, Fuels and Chemicals, June 2013. http://dc.engconfintl.org/bioenergy_iv/22/
- **Samih, S.** and J. Chaouki, Development of a Fluidized Bed Thermo-Gravimetric Analyzer (FB-TGA): Application on Coal Gasification. CMC 2013 Annual Conferences, Calgary,Canada, June 2013
- **Samih, S.** and J. Chaouki, Studying kitecs of coal gasification in Fluidized Bed Thermo-Gravimetric Analyzer (FB-TGA). CMC 2012 Annual Conference, Gatineau, Canada, May 2012