

# CURRICULUM VITAE

Heping Cui, Ph.D.  
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## Education

- Ph.D., Chemical Engineering, Institute of Process Engineering, CAS, China, 1998.
- M.Eng., Thermal Energy Energy, Huazhong University of Science & Technology, 1994.
- B.Eng., Energy Engineering, Central South University, 1991.

## Professional Experience

2008 – Present: Principal Engineer, Covanta, USA.

2007 – 2008: Senior Staff Engineer, Honeywell, USA.

2005 – 2007, 2002-2003: Research Associate, University of British Columbia, Canada.

2004 – 2004: Senior Research Engineer, Membrane Reactor Technologies Ltd, Canada.

1999 – 2002: Postdoctoral Fellow/Research Associate, Ecole Polytechnique, Canada.

## Honors and Awards (Selected):

- Industrial R&D Fellowships, NSERC, 2004.
- Fellowships for *Fluidization X Conference*, United Engineering Foundation, 2001.
- Postdoctoral Fellowships, NSERC, 2000-2002.
- Top Reviewer of <Waste Management> Journal for the year 2012.

## Reviewer for Journals & Conferences:

*Renewable Energy, Energy, Energy & Fuels, Fuel, Fuel Processing Technology, Alternative Energy, Environmental Progress & Sustainable Energy, Waste Management, Journal of Hazardous Materials, Chemical Engineering Journal, Chemical Engineering Science, Industrial & Engineering Chemistry Research, Particuology, Powder Technology, Canadian Journal of Chemical Engineering and others.*

## Publications (selected):

1. Jianjun Dai, Heping Cui and John Grace, “Biomass feeding for thermochemical reactors” in *Progress in Energy and Combustion Science*, 38 (5), 716-736, 2012.
2. Heping Cui and John Grace, titled “Fluidization of biomass particles: A review of experimental multiphase flow aspects” in *Chemical Engineering Science*, 62, 45-55, 2007.
3. Heping Cui, Navid Mostoufi and Jamal Chaouki, “Characterization of dynamic gas-solid distribution in fluidized beds” in *Chemical Engineering Journal*, 79(2): 133-143, 2000.
4. Heping Cui, Loretta Y. Li, John R. Grace, titled “Exploration of remediation of acid rock drainage with clinoptilolite as sorbent in a slurry bubble column for both heavy metal capture and regeneration” in *Water Research*, 40, 3359-3366, 2006.
5. Heping Cui and John Grace, titled “Spouting of biomass particles: A review” in *Bioresource*

- Technology*, 99, 4008-4020, 2008.
6. Heping Cui and Jamal Chaouki, titled "Effects of temperature on local two-phase flow structure in bubbling and turbulent fluidized beds of FCC particles" in *Chemical Engineering Science*, 59, 3413-3422, 2004.
  7. Heping Cui, Pierre Sauriol and Jamal Chaouki, titled "High temperature fluidized bed reactors: measurement, hydrodynamics and simulation" in *Chemical Engineering Science*, 58, 1071-1077, 2003.
  8. Jinghai Li, Lixiong Wen, Wei Ge, Heping Cui and Jingqian Ren, titled "Dissipative structure in concurrent-up gas-solid flow" in *Chemical Engineering Science*, 53(19), 3367-3379, 1998.
  9. Heping Cui, Navid Mostoufi and Jamal Chaouki, titled "Gas and solids between dynamic bubble and emulsion in gas-fluidized beds" in *Powder Technology*, 120(1/2): 13-21, 2001.
  10. T. Pugsley, H. Tanfara, S. Malcus, H. Cui, J. Chaouki and C. Winters, titled "Verification of Fluidized Bed Electrical Capacitance Tomography Measurements with a Fibre Optic Probe" in *Chemical Engineering Science*, 58, 3923-3934, 2003.
  11. Navid Mostoufi, Heping Cui and Jamal Chaouki, titled "A comparison of two- and single phase models for fluidized bed reactors" in *Industrial and Engineering Chemistry Research*, 40(22), 5526-5532, 2001.
  12. Jinghai Li, Lixiong Wen, Guihua Qian, Heping Cui, Mooson Kwauk, Jaap C. Schouten and Cor M. van den Bleek, titled "Structure heterogeneity, regime multiplicity and nonlinear behavior in particle-fluid systems" in *Chemical Engineering Science*, 51(11): 2693-2698, 1996.
  13. Pierre Sauriol, Heping Cui, and Jamal Chaouki, titled "Gas Jet Penetration Lengths from Upward and Downward Nozzles in Dense Gas-Solid Fluidized Beds" in *Powder Technology*, 235, 42-54, 2013.
  14. Pierre Sauriol, Heping Cui, and Jamal Chaouki, titled "Gas-Solid Structure in the Vicinity of a Sparger Nozzle in a Fluidized Bed" in *Powder Technology*, 228, 131-140, 2012.
  15. H.P. Cui, M. Strabel, D. Rusnell, H.T. Bi, K. Mansaray, J.R. Grace, C.J. Lim, C. McKnight and D. Bulbuc, titled "Gas and solids mixing in a dynamically scaled fluid coker stripper" in *Chemical Engineering Science*, 61(2), 388-396, 2006.
  16. Heping Cui, Jinghai Li, Mooson Kwauk, Hongzhi An, Min Chen, Zhiming Ma and Guofu Wu, titled "Dynamic behaviors of heterogeneous structure in gas-solid fluidization reactor" in *Powder Technology*, 112(1-2): 7-23, 2000.
  17. John Grace, Heping Cui and Said Elnashaie, titled "Non-uniform distribution of two-phase flows through parallel identical paths" in *Canadian Journal of Chemical Engineering*, 85, 662-668, 2007.
  18. Hsiaotao Bi, Heping Cui, John Grace, A. Kern, C. Jim Lim, Dan Rusnell, Xuqi Song and Craig McKnight, titled "Flooding of gas-solids countercurrent flow in fluidized beds" in *Industrial and Engineering Chemistry Research*, 43, 5611-5619, 2004.
  19. Heping Cui, John Grace, Craig McKnight, Tianzhu Zhang, Ian Rose, Xiaotao Bi, Jim Lim and Darren Burgardt, titled "Jet configuration for improved fluidized bed stripping" in *Chemical Engineering Journal*, 125, 1-8, 2006.
  20. Ian Rose, Heping Cui, Tianzhu, Zhang, Craig McKnight, John Grace, Xiaotao Bi and Jim Lim, titled "Toward an ultimate fluidized bed stripper" in *Powder Technology*, 158, 124-132, 2005.