

RAHMAT SOTUDEH-GHAREBAGH

School of Chemical Engineering
College of Engineering, University of Tehran
P.O. Box 11155-4563, Tehran, Iran
Tel: (+98- 21) 6697-6863, 6111-2855
Fax: (+98-21) 6646-1024

e-mail: sotudeh@ut.ac.ir
<http://process.ut.ac.ir/sotudeh>



EDUCATION

- 1994- 99 **Ph.D.** in Chemical Engineering, Ecole Polytechnique de Montreal, *Canada*.
- 1992 -94 **M.Sc.** in Chemical Engineering, Ecole Polytechnique de Montreal, *Canada*.
- 1988-89 **Advanced Certificate Program (ACP)** in Petroleum Engineering, Abadan, Institute of Technology, Joint Program with UNDP, Ahvaz, *Iran*.
- 1983 -87 **B.Eng.** in Chemical Engineering, Sharif University of Technology, Tehran, *Iran*.

EXPERIENCE

- 2015- Top Advisor to CEO, Fouman Chimie Industrial Co.
- 2013- Iranian Association of Chemical Engineering (IACHE), Main Board Member.
- 2011- International Consultant (1802), CECON Group, USA, <http://www.cecon.com/>
- 2010-2014 Director of Standard Research Institute, ISIRI, Tehran, Iran.
- 2008- Professor of Chemical Engineering, University of Tehran, Tehran, Iran.
- 2010-2013 Director of Iranian Scientific Laboratories Network (ISLN), MSRT, Tehran, Iran.
- 2008- 2011 Chairman of Tehran Universities' Applied Research Council (TUARC), Iran.
- 2008- 2010 Dean of UT Applied Research Office (UT-ARO), University of Tehran, Iran.
- 2008- 2010 Deputy to Vice President for Research and Technology, University of Tehran, Iran.
- 2006- 2007 Visiting Associate Professor, Dept. of Chem. Eng., University of Qatar, Qatar.
- 1999- 2008 Assistant and Associate Professor of Chem. Eng., University of Tehran, Iran.
- 2003- 2005 Director of Technical Training Office, Chemical Engineering Department, University of Tehran, Tehran, Iran.
- 2002- Director of Process Design and Simulation Centre, University of Tehran, Iran.
- 2002- 2004 Research, Development and Training Manager, Glucosan., Iran.
- 2001- 2003 Head of Graduate Studies, Chem. Eng. Dept., University of Tehran, Tehran, Iran.
- 2001- 2002 Consultant, IRALCO, Iran.
- 1999- 2008 Adjunct Professor of BioSystem Engineering, University of Tehran, Iran
- 1999- 2006 Founder and Executive Director of Pharmaceutical Engineering Program, Chemical Engineering Department, University of Tehran, Tehran, Iran.
- 1999- 2003 Head of IT Department, Sharif Tech. Development Institute. Tehran, Iran.
- 1987- 1992 Research Assistant, JDI, Sharif University of Technology, Tehran, Iran.

Award/Prize

1. University of Tehran's International Award, 2015
2. Allameh Prize from Iran National Elite Foundation, 2015
3. Allameh Award, 2015

WORKSHOPS (> 200)

1. Process Simulation using HYSYS/ ASPEN PLUS / SPD
2. Steady State Process Simulation
3. Dynamic Process Simulation
4. Operator Training Simulators (OTS)
5. PC-Based Softwares for Process Engineers
6. IT for Process Engineers

(Jointly conducted with Prof. Mostoufi and Dr. Zarghami for Petroleum Industries since May 2002)

COURSES

1. Computer Aided Process Simulation (Undergraduate)
2. Numerical Methods (Undergraduate)
3. Chemical Reactor Design (Undergraduate)
4. Applied Mathematics for Chemical Engineers (Undergraduate)
5. Advanced Computer-Aided Process Simulation (Graduate)
6. Powder Technology (Graduate)
7. Fluidization Engineering (Graduate)
8. Transport Phenomena (Graduate)
9. Computer-Aided Design and Simulation in Gas Industry (Graduate)

ADDITIONAL ACTIVITIES

1. Founding Director, Process Design and Simulation Research Center
2. Co-Founding Director, Multiphase Flow Laboratory, University of Tehran
3. Board Member, Centre of Excellence (Oil and Gas), Since 2005, University of Tehran.
4. Member of the Graduate Studies Committee, 2000-2007.
5. Member of UT Research Council, 2008-2010.
6. Member of the Recruitment Committee, 2000-2007, 2010-2014.
7. Member of Scientific Committees for Methanol, Petrochem. Research and Technology Co.
8. Member of Scientific Committees for Process Modeling and Simulation, Petrochemical Research and Technology Co.
9. Founding Editor, Chemical Product and Process Modeling, The Berkeley Electronic Press, CA, USA, <http://www.bepress.com/cppm>.

CURRICULUM

1. Development and implementation of a new Pharmaceutical Engineering program, Chemical Engineering Department, University of Tehran, 2000-2004.

THESIS

1. Senior Project (> 70 Completed)
2. Master Thesis (>50 completed, 12 in supervision)
3. PhD Thesis (10):

| * # | Title | Student | Supervisor/Advisor(A) |
|-----|---|-------------------|--|
| 1. | Grape drying process, experimental and modeling | M. Esmaili | R. Sotudeh-Gharebagh M. E. Mousavi (A) |
| 2. | Microstructure and rheological properties of gels and emulsions | K. Nayebzadeh | M. E. Mousavi R. Sotudeh-Gharebagh (A) |
| 3. | surface energy and microstructure properties of Zein films | B. Ghanbarzadeh | M. E. Mousavi Z. Emamjomeh R. Sotudeh-Gharebagh (A) |
| 4. | Characterization of pressure fluctuations in fluidized beds | R. Zarghami | N. Mostoufi R. Sotudeh-Gharebagh |
| 5. | Hydrodynamics of bubbling fluidized beds by DEM-CFD | Z. Mansourpour | N. Mostoufi R. Sotudeh-Gharebagh (A) |
| 6. | Similarities of Gas-solid and Gas-liquid systems | M Abbasi | N. Mostoufi R. Sotudeh-Gharebagh R. Zarghami (A) |
| 7. | Non-linear analysis of the scaling in gas-solid fluidized beds | M. Tahmasebpour | R. Sotudeh-Gharebagh R. Zarghami N. Mostoufi (A) |
| 8. | Treatment of VOC in photocatalytic fluidized beds | M. Hajaghazadeh | H. Kakooie R. Sotudeh-Gharebagh |
| 9. | Modeling of the nano clays behavior in the packaging polymer matrix | M. Farhoodi | M. E. Mousavi R. Sotudeh-Gharebagh |
| 10. | Non-premixed flame stability in industrial furnaces using CFD | S. M Najafi Zadeh | M. T. Sadeghi R. Sotudeh-Gharebagh (A) |

SELECTED PROJECTS

1. Simulation and kinetic studies of pyrolysis gasoline hydrogenation unit, Tabriz Petrochemical Co., IRAN.
2. C₃₊ recovery and process audit, National Iranian Gas Co.
3. Simulation of food grade CO₂ production plant, Zamzam Co.
4. Developing the Operator Training Simulator (OTS) for methanol synthesis plant, Zagross Petrochemical Co., IRAN
5. MTP process development, Petrochemical Research and Technology Co.
6. Sequential modular simulation of non-ideal reformers using process simulators
7. Grape drying process, experimental and modeling
8. Safe Combustion of Natural Gas in Fluidized Beds - In Collaboration with Qatar University, Ecole Polytechnique de Montreal, Canada, Qatar National Research Fund-NPRP09 -061-2 - 034, Principle Investigator.

RESEARCH INTERESTS

1. Fluidization Engineering
2. Process Modeling and Simulation
3. Chemical Engineering Education
4. Pharmaceutical Engineering
5. Information Technology (IT)

GENERAL LECTURES (Invited)

1. Research-based education at the information age, University of Science and Culture
2. Electronic Journals creation and management, Sharif Technology Development Institute
3. University of Tehran structural reform, challenges and perspectives, Faculty of Engineering, University of Tehran.
4. Information technology for chemical engineers, University of Tehran
5. Excel-aided engineering, Qatar University, Doha, Qatar

PUBLICATIONS

BOOKS

- 1 Norouzi H.R., R. Zarghami, **R. Sotudeh-Gharebagh** and N. Mostoufi, *Coupled DEM-CFD Modeling: Principle, Implementation, and Applications to Multiphase Flows*, ISBN: 978-1-119-00513-1, John Wiley & Sons Ltd., October 2016.
- 2 **Sotudeh-Gharebagh R.** and J. Chaouki, *Combustion of Natural Gas in Turbulent Fluidized Beds: Experiments, Simulation*, LAMBERT Academic Publishing AG & Co. KG, Germany, 2009.
- 3 **Sotudeh-Gharebagh R.**, N. Mostoufi and A. Kiashemshaki, *Steady State Process Simulation*, Boshra Publishing Co., IRAN, 2006.
- 4 **Sotudeh-Gharebagh R.** and N. Mostoufi, *Process Simulation*, Boshra Publishing Co., IRAN, 2005.

CHAPTERS

- 1 Laviolette, J-P, **R. Sotudeh-Gharebagh**, R. Mabrouk, G.S. Patience, J. Chaouki, *Fluidized Bed Combustion of Natural Gas and Other Hydrocarbons*. Edited by M. Lackner, F. Winter, A. K. Agarwal, Handbook of Combustion, Vol. 5 (New Technologies), Chapter 9, John Wiley, 2010.
- 2 Zarghami R., N. Mostoufi, **R. Sotudeh-Gharebagh**, J. Chaouki, *Nonlinear Dynamic Characteristics of Bubbling Fluidization*, Advances in Multiphase Flow and Heat Transfer, Vol. 3, Chapter 9, Bentham Science Publishers, 2012, 300-331.
- 3 Abbasi M., Z. Mansourpour, N. Mostoufi, and **R. Sotudeh-Gharebagh**, *Measurement Techniques in Gas-Solid Fluidized Beds*, Fluidization Engineering Practice, Second expanded edition, Chapter 7, <http://www.arunmujumdar.com/e-books.htm>, 2012, 257-286.

JOURNALS

- 1 *Chemical Product and Process Modeling*, Editors-in-Chief: **R. Sotudeh-Gharebagh**, N. Mostoufi and J. Chaouki, **DE GRUYTER**, 10785 Berlin, Germany, <http://www.degruyter.com/view/j/cppm>, (2006-
- 2 *Journal of Industrial Technology Development*, Editor-in-Chief: **R. Sotudeh-Gharebagh**, <http://jtd.iranjournals.ir/>, (2009-2012).

PAPERS

Refereed Papers (159)

1. Non-intrusive characterization of particle size changes in fluidized beds using recurrence plots, C. Savari, **R. Sotudeh-Gharebagh**, R. Zarghami, N. Mostoufi, *AIChE*, DOI: 10.1002/aic.15265, 2016. vol. 62, p. 3547-3561, 2016.
2. Early detection of agglomeration in conical spouted beds using recurrence plots, C. Savari, G. Kula, **R. Sotudeh-Gharebagh**, N. Mostoufi, M. Koksai, *Ind. Eng. Chem. Res*, DOI: 10.1021/acs.iecr.6b00687, vol. 55, p7179-7190, 2016.
3. Effect of TiO₂ nanoparticles on thermal and mechanical properties and permeability of polyethylene terephthalate (PET) (in Persian), M. Farhoodi, S. M. Mousavi, **R. Sotudeh-Gharebagh**, Z. Emam-Djomeh A. Oromiehie, *Food Science and Engineering*, vol. 13, 60, 2017.
4. Migration Kinetics of Ethylene Glycol Monomer from PET Bottles into Acidic Food Simulant: Effects of Nanoparticle Presence and Matrix Morphology, M. Farhoodi, S. M. Mousavi, **R. Sotudeh-Gharebagh**, Z. Emam-Djomeh A. Oromiehie, *Accepted in Food Process Engineering*, 2016.
5. Sequence based process modeling of fluidized bed biomass gasification, H. Asadi-Saghandi, A. Sheikhi, **R Sotudeh-Gharebagh**, *ACS Sustainable Chem. Eng.*, vol. 3, 11, p 2640–265, 2015.
6. Early detection of agglomeration in a polyethylene fluidized bed at high temperature and pressure by vibration signature analysis, F. Alamolhoda, A. Shamiri, M. A. Hussain, **R Sotudeh-Gharebagh**, N. Mostoufi, *Chemical Engineering Research and Design*, vol. 104, p. 156-163, 2015.
7. Sequential modeling of heavy liquid fuel combustion in a fluidized bed, A. Yousefifar, **R. Sotudeh-Gharebagh**, N. Mostoufi S. S. Mohtasebi, *Chemical Engineering and Technology*, vol. 38, 10, p.1853–1864 2015.
8. On the flow direction effect in sequential modular simulations: a case study on fluidized bed biomass gasifiers, H. Hasanzadeh-Shahrivar, A. Sheikhi, **R. Sotudeh-Gharebagh**, *International Journal of Hydrogen Energy*, vol. 40, p. 2552-2567, 2015.
9. Numerical comparison of gas-liquid bubble columns and gas-solid fluidized beds, M. Abbasi, J. R. Grace, **R. Sotudeh-Gharebagh**, R. Zarghami, N. Mostoufi, *Canadian Journal of Chemical Engineering*, vol.93, p. 1838-1848, 2015.
10. Attractor comparison of vibration signal by S-statistic method to characterize hydrodynamics of fluidized beds, (in Persian), F. Mohammadi, **R. Sotudeh-Gharebagh**, H. Azizpour, R. Zarghami and N. Mostoufi, *Accepted in Journal of Petroleum Research*, 2014.
11. Characterization of fluidized beds hydrodynamics by recurrence quantification analysis and wavelet transform, M. Tahmasebpour, R. Zarghami, **R. Sotudeh-Gharebagh**, N. Mostoufi, *International Journal of Multiphase Flow*, vol. 69, p. 31-41, 2015.
12. Influence of operating parameters on gas phase photocatalytic oxidation of methyl-ethylketone in an LED-fluidized bed reactor, M. Hajaghadzadeh, V. Vaiano. D. Sannino, H. Kakooei; **R. Sotudeh-Gharebagh**, *Korean Journal of Chemical Engineering*, vol. 32, 4, p. 636-642, 2015.
13. Simulation of volatile organic compounds photocatalytic removal in a fluidized bed reactor (in Persian), A. Motamed Dashliborun, **R. Sotudeh-Gharebagh**, M. Hajaghadzadeh, H. kakooei, *Iranian Journal of Chemistry and Chemical Engineering*, vol. 1, p.65-73, 2014.

14. A numerical study on agglomeration in high temperature fluidized beds, Z. Mansourpour, N. Mostoufi, **R. Sotudeh-Gharebagh**, *Journal of Chemical and Petroleum Engineering*, vol. 48, p.15-25, 2014.
15. Comparative simulation of a fluidized bed reformer using industrial process simulators, H. Bashiri, **R. Sotudeh-Gharebagh**, A. Sarvar-Amini, A. Haghtalab and N. Mostoufi *International Journal of Sustainable Energy*, <http://dx.doi.org/10.1080/14786451.2014.932280>, 2014.
16. Measurement techniques to monitor and control fluidization quality in fluidized bed dryers - A review, M. Aghbashlo, **R.Sotudeh-Gharebagh**, R. Zarghami, A. S. Mujumdar, N. Mostoufi, *Drying Technology*, vol. 32, p.1005-1051, 2014.
17. Detecting sudden changes in fluidization by wall vibration, H. Azizpour, B. Hadadi-Sisakht, H. R. Norouzi, **R. Sotudeh-Gharebagh**, R. Zarghami, N. Mostoufi, *Particulate Science and Technology*, vol.32, p.412–417, 2014.
18. Sequential-based process modeling of VOCs photodegradation in fluidized beds, H. Asadi-saghandi, **R. Sotudeh-Gharebagh**, A. Motamed-Dashliborun, H. Kakooei, and M. Hajaghazadeh, *Canadian Journal of Chemical Engineering*, vol. 92, p. 1865-1874, 2014.
19. Wall vibration for characterizing fluidization hydrodynamics, H. R. Norouzi, B. Haddadi-Sisakht, H. Azizpour, R. Zarghami, **R. Sotudeh-Gharebagh** and N. Mostoufi, *Canadian Journal of Chemical Engineering*, vol. 92, p. 1783-1790, 2014.
20. Selection of minimal length of line in recurrence quantification analysis, B. Babaei, R. Zarghami, H. Sedighikamal, **R. Sotudeh-Gharebagh**, N. Mostoufi, *Physica A: Statistical Mechanics and its Applications*, vol. 395, p. 112-120, 2014.
21. Experimental study of the VOC emitted from crude oil tankers, M. Tamaddoni, **R. Sotudeh-Gharebagh**, S. Nario, M. Hajihosseinzadeh, N. Mostoufi, *Process Safety and Environmental Protection*, vol.92, p.929-937, 2014.
22. Experimental investigation of clusters properties in dense gas-solid fluidized beds of different diameters, N. Firuzian, **R. Sotudeh-Gharebagh**, N. Mostoufi, *Particuology*, vol. 16, 69-74, 2014.
23. Heterogeneous photocatalytic oxidation of methyl ethyl ketene under UV-A light in an LED-fluidized bed reactor, M. Hajaghazadeh, V. Vaiano, D. Sannino, H. Kakooei, **R. Sotudeh-Gharebagh**, P. Ciambelli, *Catalysis Today*, vol. 230, p. 79-84, 2014.
24. Investigating agglomeration phenomena in an air-polyethylene fluidized bed using DEM-CFD approach, Z. Mansourpour, N. Mostoufi, **R. Sotudeh-Gharebagh**, *Chemical Engineering Research and Design*, vol. 92, p. 102-118, 2014.
25. Migration of aluminum and silicon from PET/clay nano-composite bottles into acidic food stimulant, M. Farhoodi, S. M. A. Mousavi, **R. Sotudeh-Gharebagh**, Z. Emam-Djomeh, A. Oromiehie, *Packaging Technology and Science*, vol. 27, p. 161–168, 2014.
26. Effect of spherical and platelet-like nano-particles on physical and mechanical properties of polyethylene terephthalate, M. Farhoodi, S. M. A. Mousavi, **R. Sotudeh-Gharebagh**, Z. Emam-Djomeh, A. Oromiehie, *Journal of Thermoplastic Composite Materials*, vol. 27, p. 1127-1138, 2014.
27. Modeling of vibration of a cylindrical fluidized bed shell, H. Ghorbani, **R. Sotudeh-Gharebagh**, M. Abbasi, R. Zarghami, N. Mostoufi, *Iranian Journal of Chemical Engineering*, vol. 10, p. 66-80, 2013.
28. Chemical structure of autoignition in a turbulent lifted H₂/N₂ jet flame issuing into a vitiated co-flow, S.M. Mirnajafizadeh, D.J.E.M. Roekaertsb, M.T. Sadeghi, **R. Sotudeh-Gharebagh**, *Combustion and Flame*, vol. 160, p. 2928–2940, 2013.

29. Turbulence modeling in a lifted diffusion jet flame issuing into a hot and diluted coflow, S.M. Mirnajafizadeh, M.T. Sadeghi, **R. Sotudeh-Gharebagh**, *Journal of Fuel and Combustion*, vol. 6, p. 85-101, 2013.
30. Characterization of various structures in gas-solid fluidized beds by recurrence quantification analysis, M. Tahmasebpour, R. Zarghami, **R. Sotudeh-Gharebagh**, N. Mostoufi, *Particuology*, vol. 11, p. 647-656, 2013.
31. A novel approach for simultaneous hydrodynamic characterization of gas-liquid and gas-solid systems, M. Abbasi, N. Mostoufi, **R. Sotudeh-Gharebagh**, Reza Zarghami, *Chemical Engineering Science*, vol. 100, p. 74–82, 2013.
32. Comprehensive study of regime transitions throughout a bubble column using resistivity probe, M. Shiea, N. Mostoufi, **R. Sotudeh-Gharebagh**, *Chemical Engineering Science*, vol. 100, p. 15-22, 2013.
33. Evaluating performance of honey bee mating optimization, M. Saidi, N. Mostoufi, **R. Sotudeh-Gharebagh**, *Journal of Optimization Theory and Applications*, vol. 160, p. 1020-1026, 2013.
34. Application of honey-bee mating optimization to naphtha reforming reactor, S. Karimi, N. Mostoufi, **R. Sotudeh-Gharebagh**, *International Journal of Chemical Reactor Engineering*, vol. 11 p. 1-16, 2013.
35. Experimental investigation on the hydrodynamics of a gas-liquid-solid fluidized bed using vibration signature and pressure fluctuation analyses, A. Sheikhi, **R. Sotudeh-Gharebagh**, N. Mostoufi, R. Zarghami, *International Journal of Heat and Fluid Flow*, vol. 42, p.190-199, 2013 . [TOP25 Hottest Articles](#)
36. Modeling and optimization of continuous catalytic regeneration process using bee colony algorithm, M. Saidi, N. Mostoufi, **R. Sotudeh-Gharebagh**, *Canadian Journal of Chemical Engineering*, vol. 91, p. 1256-1269, 2013.
37. Cluster size distribution in the freeboard of a gas-solid fluidized bed, A. Kiani, **R. Sotudeh-Gharebagh**, N. Mostoufi, *Powder Technology*, vol. 246, p.1-6, 2013.
38. Modeling of the photocatalytic degradation of methyl ethyl ketone in a fluidized bed reactor of nano-TiO₂/γAl₂O₃ particles, A. Motamed Dashliborun, **R. Sotudeh-Gharebagh**, M. Hajaghazadeh, H. kakooei, S. Afshar, *Chemical Engineering Journal*, vol. 226, p. 59-67, 2013.
39. Photocatalytic degradation of methyl ethyl ketone in a fluidized bed reactor: a factorial design analysis, M. Hajaghazadeh, H. kakooei, A. Motamed Dashliborun, **R. Sotudeh-Gharebagh**, F. Golbabaie1, A. Rahimi Forushani, S. Afshar, *Fresenius Environmental Bulletin*, vol. 22, p. 1719-1726, 2013.
40. Photo-catalytic degradation of methyl ethyl ketene by nano TiO₂ in a fluidized bed reactor, M. Hajaghazadeh, H. kakooei, A. Motamed Dashliborun, **R. Sotudeh-Gharebagh**, F. Golbabaie1, S. Afshar, A. Rahimi Forushani, *Fresenius Environmental Bulletin*, vol. 22, p. 435-440, 2013.
41. Monitoring of fluidized beds hydrodynamics using recurrence quantification analysis, B. Babaei, R. Zarghami, **R. Sotudeh-Gharebagh**, *AIChE Journal*, vol. 59, p. 399-406, 2013.
42. A Mechanistic study of agglomeration in fluidized beds at elevated pressures, Z. Mansourpour, N. Mostoufi, **R. Sotudeh-Gharebagh**, *Canadian Journal of Chemical Engineering*, vol. 91, p. 560-569, 2013.
43. Analysis of auto-ignition of a turbulent lifted H₂/N₂ jet flame issuing into a vitiated co-flow, S.M. Mirnajafizadeh, M.T. Sadeghi, **R. Sotudeh-Gharebagh**, *International Journal of Hydrogen Energy*, vol. 38, p. 2510-2522, 2013.

44. Predicting transition velocity from bubbling to turbulent fluidization by S-statistics on vibration signals, M. Shiea, **R. Sotudeh-Gharebagh**, H. Azizpour, N. Mostoufi, R. Zarghami, *Particulate Science and Technology*, vol. 31, p. 10-15, 2013.
45. Study of transition velocity from bubbling to turbulent fluidization by recurrence plots analysis on pressure fluctuations, M. Tahmasebpour, R. Zarghami, **R. Sotudeh-Gharebagh**, N. Mostoufi, *Canadian Journal of Chemical Engineering*, vol. 91, p. 368–375, 2013.
46. Understanding bubble hydrodynamics in bubble columns, A. Sheikhi, **R. Sotudeh-Gharebagh**, N. Mostoufi, R. Zarghami, M. Alfi, *Experimental Thermal and Fluid Science*, vol. 45, p. 63–74, 2013.
47. Frequency based characterization of liquid-solid fluidized bed hydrodynamics using the analysis of vibration signature and pressure fluctuations, A. Sheikhi, **R. Sotudeh-Gharebagh**, N. Mostoufi, R. Zarghami, *Powder Technology*, vol. 235, p. 787-796, 2013.
48. Migration of Silicon from nano-composite packaging materials into acidic food simulant, M. Farhoodi, S. M. Mousavi, **R. Sotudeh-Gharebagh**, Z. Emam-Djomeh A. Oromiehie, *Advanced Materials Research*, vol. 622-623, p. 873-877, 2013.
49. The use of pressure fluctuations in the monitoring of fluidized bed hydrodynamics (in Persian), F. Karimi, **R. Sotudeh-Gharebagh**, R. Zarghami, N. Mostoufi, *Farayandno*, vol.38, p. 5-16, 2012.
50. Photo-catalytic oxidation of methyl ethyl ketene in a fluidized bed reactor (*in Persian*), M. Hajaghazadeh, H. kakooei, **R. Sotudeh-Gharebagh**, S. Afshar, F. Golbabaie, A. Motamed Dashliborun, H. Hasani, *Journal of Health and Safety at Work*, vol.3, p. 47-54, 2012.
51. A study on physical ageing of semi-crystalline polyethylene terephthalate below the glass transition point, M. Farhoodi, S. M. A. Mousavi, **R. Sotudeh-Gharebagh**, Z. Emam-Djomeh, A. Oromiehie, H. Mansour, *Journal of Applied Research and Technology*, vol. 10, p. 698-702, 2012.
52. Influence of TiO₂ nano-particle filler on the properties of PET and PLA nano-composites, M. Farhoodi, S. Dadashi, S. M A. Mousavi, **R. Sotudeh-Gharebagh**, Z. Emam-Djomeh, A. Oromiehie, F. Hemmati, *Polymer Korea*, vol. 36, p.745-755, 2012.
53. Hydrodynamic characterization of liquid-solid two-phase fluidized beds: vibration signature and pressure fluctuations analyses A. Sheikhi, **R. Sotudeh-Gharebagh**, M. Alfi, N. Mostoufi, R. Zarghami, *Canadian Journal of Chemical Engineering*, vol. 90, p.1645-1652, 2012.
54. Segregation behavior of particles in gas solid fluidized beds at elevated pressure, H. R. Norouzi, N. Mostoufi, **R. Sotudeh-Gharebagh**, *Journal of Chemical and Petroleum Engineering-University of Tehran*, vol. 46, p. 111-121, 2012.
55. Application of bee colony algorithm for optimization of CCR reforming process, M. Sa'idi, N. Mostoufi, **R. Sotudeh-Gharebagh**, *Computer Aided Chemical Engineering*, vol.31, p.620-624, 2012.
56. Sequential modeling of coal volatile combustion in fluidized bed reactors, A. Eslami A. Hashemi Sohi, A. Sheikhi, **R. Sotudeh-Gharebagh**, *Energy & Fuels*, vol. 26, p. 5199–5209, 2012.
57. Hydrodynamics of gas-solid fluidized beds at elevated temperatures using the radioactive particle tracking technique, S. Sanaei, N. Mostoufi, R. Radmanesh, **R. Sotudeh-Gharebagh**, J. Chaouki, *Iranian Journal of Chemistry and Chemical Engineering*, vol. p.65-70, 2012.

58. A new method for validation of a CFD-DEM model of gas-solid fluidized bed, M. Karimi, N. Mostoufi, R. Zarghami, **R. Sotudeh-Gharebagh**, *International Journal of Multiphase Flow*, vol. 47, p. 133-140, 2012. [TOP25 Hottest Articles](#)
59. Investigating the hydrodynamics of gas–solid bubbling fluidization using recurrence plot, B. Babaei, R. Zarghami, H. Sedighikamal, **R. Sotudeh-Gharebagh**, N. Mostoufi, *Advanced Powder Technology*, vol. 23, p. 380-386, 2012.
60. Two phase steady-state particle size distribution in a gas-phase fluidized bed ethylene polymerization reactor, O. Ashrafi, N. Mostoufi, **R. Sotudeh-Gharebagh**, *Chemical Engineering Science*, vol. 37, p. 1-7, 2012. [TOP25 Hottest Articles](#)
61. Hydrodynamic characterization of three-phase fluidized-beds using vibration signature analysis (in Persian), A. Sheikhi, **R. Sotudeh-Gharebagh**, N. Mostoufi, R. Zarghami, M. Mahjoob Jahromi, *Iranian Journal of Chemistry and Chemical Engineering*, vol.30, p.43-53, 2012.
62. Effect of fines on segregation of binary mixtures in gas-solid fluidized beds, H.R. Norouzi, N. Mostoufi, **R. Sotudeh-Gharebagh**, *Powder Technology*, vol. 225, p. 7-20, 2012.
63. Vibration time series analysis of bubbling and turbulent fluidization, H. Azizpour, **R. Sotudeh-Gharebagh**, R. Zarghami, N. Mostoufi, *Particuology*, vol. 10, p. 292– 297, 2012
64. Conditional monitoring of moisture contents in a fluidized bed dryer by the acoustic emission signature, F. Karimi, **R. Sotudeh-Gharebagh**, R. Zarghami, N. Mostoufi *Korean Journal of Chemical Engineering*, vol. 29, p. 595-600, 2012.
65. Sequential-based process modeling of natural gas combustion in a fluidized bed reactor, A. Hashemi Sohi, A. Eslami, A. Sheikhi, **R. Sotudeh-Gharebagh**, *Energy & Fuels*, vol. 26, p.2058–2067, 2012.
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