



Mortaza Gholizadeh

CONTACT

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Petroleum Engineering

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Languages

Persian – Native
Turkish – Native
English – Native

Website

<https://scholar.google.com.au/citations?user=bYQo1IEAAAAJ&hl=en>

Education

May 2015 - May 2016

Postdoctoral Researcher

Curtin University of Technology (Perth, Australia)

May 2015

Ph.D. Chemical Engineer

Curtin University of Technology (Perth, Australia)

Feb 2003

M.Sc. Chemical Engineer

Sharif University of Technology (Tehran, Iran)

Sept 2002

B.Sc. Chemical Engineer

University of Tehran (Tehran, Iran)

Work experience

Jan 2017- Current position

Assistant Professor at University of Tabriz (Iran)

June 2015 - Jan 2017

Head of Engineering Faculty at Islamic Azad University- Ahar Branch (Iran)

Sep 2007 - Jun 2011

Chemical Engineer Lecturer at Azad University (Iran)

Jun 2006 - Sept 2007

Consulting Research Chemical Engineer at Chimec and ENI companies (Italy)

Jul 2004 - Sept 2006

Research Chemical Engineer at Energy Research Centre (Iran)

Patent

A method of hydrotreatment and a hydrotreatment system, Australia, 2015.

Publications

1. **M. Gholizadeh***, J. Razavi, S.A. Mousavi, Gas permeability measurement in Polyethylene and its copolymer films,

2. S.A. Mousavi, **M. Gholizadeh***, S. Sedghi, M. Pourafshari-Chenar, M. Barmala, A. Soltani, Effects of preparation conditions on the morphology and gas permeation properties of polyethylene (PE) and ethylene vinyl acetate (EVA) films, *Chemical Engineering Research and Design* 88 (2010) 1593-1598.
3. **M. Gholizadeh***, M. Momayyez, The estimation of the cooling tower height by modelling the water and air contact situation in cooling tower falling film, *Journal of Chemical Engineering and Material Science* 2 (2011) 21-27.
4. **M. Gholizadeh***, Effect of polymer (PE–EVA–PVC) structure on gas permeation properties, *Arabian Journal for Science and Engineering* 37 (2012) 889-896.
5. R. Gunawan, X. Li, C. Lievens, **M. Gholizadeh**, W. Chaiwat, X. Hu, D. Maurant, J. Bromly, C-Z Li, Upgrading of bio-oil into advanced biofuels and chemicals. Part I. Transformation of GC-detectable light species during the hydrotreatment of bio-oil using Pd/C catalyst, *Fuel* 111 (2013) 709-717.
6. W. Chaiwat, R. Gunawan, **M. Gholizadeh**, X. Li, C. Lievens, X. Hu, Y. Wang, D. Maurant, A. Rossiter, J. Bromly, C-Z Li, Upgrading of bio-oil into advanced biofuels and chemicals. Part II. Importance of holdup of heavy species during the hydrotreatment of bio-oil in a continuous packed-bed catalytic reactor, *Fuel* 112 (2013) 302-310.
7. X. Hu, L. Wu, Y. Wang, Y. Song, D. Maurant, R. Gunawan, **M. Gholizadeh**, C-Z Li, Acid-catalyzed conversion of mono- and poly-sugars into platform chemicals: Effects of molecular structure of sugar substrate, *Bioresource technology*, 133 (2013) 469-474.
8. X. Hu, D. Maurant, Y. Wang, L. Wu, W. Chaiwat, R. Gunawan, **M. Gholizadeh**, C. Lievens, M. Garcia-Perez, C-Z Li, Acid-catalysed treatment of the mallee leaf bio-oil with methanol: Effects of molecular structure of carboxylic acids and esters on their conversion, *Fuel Processing Technology journal* 106 (2013) 569-576.
9. X. Hu, Y. Wang, D. Maurant, R. Gunawan, C. Lievens, W. Chaiwat, **M. Gholizadeh**, L. Wu, X. Li, C-Z Li, Polymerization on heating up of bio-oil: A model compound study. *AIChE Journal*, 59 (2013) 888-900.
10. X. Hu, Y. Song, L. Wu, **M. Gholizadeh**, C-Z Li, One-pot synthesis of levulinic acid/ester from C5 carbohydrates in a methanol medium, *ACS Sustainable Chemistry and Engineering journal* 1 (2013) 1593-1599.
11. X. Li, R. Gunawan, Y. Wang, W. Chaiwat, X. Hu, **M. Gholizadeh**, D. Maurant, J. Bromly, C-Z Li, Upgrading of bio-oil into advanced biofuels and chemicals. Part III. Changes in aromatic structure and coke forming propensity during the catalytic hydrotreatment of a fast pyrolysis bio-oil with Pd/C catalyst, *Fuel* 116 (2014) 642-649.

12. **M. Gholizadeh**, R. Gunawan, X. Hu, M.M. Hasan, S. Kersten, R. Westerhof, W. Chaitwat, C-Z Li, Different reaction behaviours of the light and heavy components of bio-oil during the hydrotreatment in a continuous pack-bed reactor, *Fuel Processing Technology journal* 146 (2016) 76-84.
13. **M. Gholizadeh**, R. Gunawan, X. Hu, F.M. Mercader, R. Westerhof, W. Chaitwat, M.M. Hasan, D. Mourant, C-Z Li, Effects of temperature on the hydrotreatment behaviour of pyrolysis bio-oil and coke formation in a continuous hydrotreatment reactor, *Fuel Processing Technology journal*, 148 (2016) 175-183.
14. **M. Gholizadeh**, R. Gunawan, X. Hu, S. Kadarwati, R. Westerhof, W. Chaitwat, M.M. Hasan, C-Z. Li, Importance of hydrogen and bio-oil inlet temperature during the hydrotreatment of bio-oil, *Fuel Processing Technology journal* 150 (2016) 132-140.
15. K. Chen, L. Zhang, **M. Gholizadeh**, N. Ai, M.D Hasan, D. Mourant, C-Z Li, S.P Jiang, Feasibility of tubular solid oxide fuel cells directly running on liquid biofuels, *Chemical Engineering Science* 154 (2016) 108-118.
16. M.M. Hasan, X.S Wang, D. Mourant, R. Gunawan, C. Yu, X. Hu, S. Kadarwati, **M. Gholizadeh**, H. Wu, B. Li, L. Zhang, C-Z Li, Grinding pyrolysis of Mallee wood: Effects of pyrolysis conditions on the yields of bio-oil and biochar, *Fuel Processing Technology* 167 (2016) 215-220.
17. S. Kadarwati, X. Hu, R. Gunawan, R. Westerhof, **M. Gholizadeh**, M.M. Hasan, C-Z Li, Coke formation during the hydrotreatment of bio-oil using NiMo and CoMo catalysts, *Fuel Processing Technology* 155 (2017) 261-268.
18. X. Hu, **M. Gholizadeh***, M. Samudi, Study of the effect of the temperature of caustic tower operation on red oil formation in olefin units, *Asia-Pacific Journal of Chemical Engineering* 13 (2018) 1-6.
19. X. Hu, H. Guo, **M. Gholizadeh***, B. Sattari, Q. Liu, Pyrolysis of different wood species: Impacts of C/H ratio in feedstock on distribution of pyrolysis products, *Biomass and Bioenergy* 120 (2019) 28-39.
20. X. Hu, **M. Gholizadeh***, Biomass pyrolysis: A review of the process development and challenges from initial researches up to the commercialisation stage (*Journal of Energy Chemistry*), 2019.
21. **M. Gholizadeh***, X. Hu, Q. Liu, Progress of using biochar as a catalyst in thermal conversion of biomass, *Reviews in Chemical Engineering* 35 (2019) 1-30.
22. C.T. Zhang, L. Zhang, Q. Li, Y. Wang, Q. Liu, Tao Wei, D. Dong, S. Salavati, **M. Gholizadeh***, X. Hu, Catalytic pyrolysis of poplar wood over transition metal oxides: Correlation of catalytic behaviors with physiochemical properties of the oxides, *Biomass and Bioenergy* 124 (2019) 125-141.
23. **M. Gholizadeh***, X. Hu, Q. Liu, A mini review of the

specialties of the bio-oils Produced from Pyrolysis of 20 Different Biomasses, Renewable and Sustainable Energy Reviews, 114 (2019) 109313.

24. Y. Han, **M. Gholizadeh**, C-C. Tran, S. Kaliaguine, C-Z Li, M. Olarte, M. Garcia-Perez, Hydrotreatment of pyrolysis bio-oil: A review, Fuel Processing Technology journal 195 (2019) 106-140.
25. S. Salavati, C.T. Zhanga, S. Zhang, Q. Liud, **M. Gholizadeh***, X. Hu, Cross-interaction during co-gasification of wood, weed, plastic, tire and carton, Journal of Environmental Management, (2019).

Conference Papers

1. Gas diffusion modelling and measurement in LDPE (International Conference of Iranian Society of Chemical Engineering), Tehran, Iran, 2004.
2. Effect of physical conditions at gas diffusion at LDPE (International Conference of Iranian Society of Chemical and Chemical Engineering), Tehran, Iran, 2003.
3. Gas diffusion modeling and measurement in LDPE (International Conference of Japan Society of Chemical Engineering), Japan 2004.
4. Gas permeability measurement in Polyethylene and its copolymer films (in international conference), Qchek, 2006.
5. Gas permeability measurement in Polyethylene and its copolymer films (in international conference), Brazil, 2006.
6. Gas permeability measurement in Polyethylene (in food conference), Iran, 2006.
7. Water treatment with PAC, PACS (International Conference), Iran, 2009.
8. Study of preparation conditions on morphological and gas permeation properties of polyethylene (PE) and ethylene vinyl acetate (EVA) films (international conference), France, 2009.
9. The nitrogen cycle in air, soil and water, Italy, 2016.
10. Grinding pyrolysis – development of a novel technology, Australia, 2016.

Skills

Analytical techniques: advanced understanding of CHNOS analysis, Raman-microscopy, FT-IR, TGA, GC/MS, GC, UV-Fluorescence

Computer (software) programs: Knowledge of Windows, Microsoft Office, Origin, Hysys, ASPEN, and software to operate the various

Research Interests

- Renewable energy resources
- Catalytic processes
- Waste to energy processes
- Pyrolysis
- Gasification
- Upgrading of the bio-oil
- Scale up of biorefinery processes
- Commercialization of pyrolysis and gasification processes