

CURRICULUM VITAE



Personal Particulars

Last Name: **Hashemifard**
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CORRESPONDENCE ADDRESS

Department of Chemical Engineering, Faculty of Petroleum, Gas and Petrochemical Engineering (FPGPE), Persian Gulf University (PGU), Bushehr, I.R.Iran, 7516913817.

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QUALIFICATION

- B.S. Degree in Chemical and Gas Engineering, from Petroleum University of Technology, Ahwaz, Iran (1996), Av. **17.23 / 20**.
- M.S. Degree in Chemical Engineering from Amirkabir (Polytechnique) University, Tehran, Iran, (1998), Av. **17.96 / 20**.
- PhD. Degree in Chemical Engineering (Gas Engineering) from Universiti Teknologi Malaysia (UTM), Johor Bahru, Malaysia, (2011), Final **CGPA(4)**.

THESIS TITLES

- BSc. Thesis: *A Research into the Heat Transfer Coefficient in Agitated Vessels*. Supervisor: *Prof. M. Jamialahmadi*.
- MSc. Thesis: *Production of Fluorspar from Acidic Waste Water Containing Fluorine*. Supervisor: *Prof. F. Rashidi*.
- PhD. Thesis: *Development and Modelling of Mixed Matrix Membranes Incorporating Large Pore Size Clay for Gas Separation*. Supervisors: *Prof. A.F.Ismail and Prof. Takeshi Matsuura*.

EMPLOYMENT

- Lecturer in chemical engineering department of Persian Gulf University, 2000-2011.
- Head of chemical engineering department of Persian Gulf University, 2006-2008.
- Member of Book publishing committee in Persian Gulf University, 2006-2008.
- Member of Iranian Association of Chemical Engineering (IChE).
- Post doctorate in AMTEC-Universiti Teknologi Malaysia 2011-2012.
- Member of editorial board of Journal of oil, gas and petrochemical technology (Persian Gulf University) 2013.
- Head of Energy committee of Bushehr province, 2013.
- Dean of Faculty of Petroleum, Gas and Petrochemical Engineering (FPGPE) of Persian Gulf University (PGU)
- Member of the scientific committee of the National Elites Foundation, Bushehr branch, 2015.

PROFESIONAL EXPERIENCE

Research:

- Project leader: Desalination of Brackish Water using the carrier gas process, 2002, Persian Gulf University (**Awarded the highest rank in the engineering section of the 4th Kharazmi scientific festival; youth section, Tehran,2002**).
- Project leader: Economic Evaluation of Downstream Petrochemical Derivatives for Investment in Bushier State, 2004, Persian Gulf University.
- Co-Manager of project leader: Modification of Two-Phase Flow Equation for Nar-Kangan Gas Pipeline, 2004, Persian Gulf University.
- Supervising more than 35 BS Projects during 2000-2017 at Persian Gulf University

- Research officer of project: Gas separation by hollow fiber membrane, for Petronas, 2010-2011, AMTEC- Universiti Teknologi Malaysia, Malaysia.
- Co-supervisor of project: Gas separation by hollow fiber mixed matrix membrane, for Petronas, 2011-2012, AMTEC-Universiti Teknologi Malaysia, Malaysia.
- Supervisor of project: Evaluating the conventional gas permeation testing method to predict the structural parameters of the porous skin membrane, 2013, Persian Gulf University.
- Supervisor of project: Synthesis and optimization of nanofiltration membranes via nanoparticles for industrial wastewater treatment in Bushehr province, 2013, Center of Education and Research of Bushehr Province.
- Visiting researcher: University Teknologi Malaysia, Advanced Membrane Technology Centre, July to August, 2013.
- Visiting researcher: University Teknologi Malaysia, Advanced Membrane Technology Centre, August to October, 2015.

Postgraduate supervision:

- PhD graduated: Masood Rezaei Dasht Arhandi, Thesis title: "Development of Novel Mixed Matrix Membrane Material for Membrane Contactor for Gas Separation", AMTEC-Universiti Teknologi Malaysia, Malaysia, 2011-2012.
- PhD candidate: Masoud Saberi, Thesis title: "Development and modeling of CO₂-induced plasticization of polymeric and nanocomposite membranes and controlling by heat-treatment technique", Persian Gulf University, 2012-2017.
- PhD candidate: Ahmad Moarefian, Thesis title: "Development and modeling of membrane distillation", Persian Gulf University, 2014.
- MSc graduated: Ali Moslehyani, Thesis title: "Silver Ion Exchange Fillers Incorporated with Mixed Matrix Membranes for Antibacterial Application", AMTEC-Universiti Teknologi Malaysia, Malaysia, 2011-2012.

- MSc candidate: Hannaneh Ahmadi, Effect of heat treatment on the performance of membrane contactor hollow fiber for CO₂ removal, Persian Gulf University, 2013-2015.
- MSc candidate: Mostafa Teimuri, Effect of non-polar coagulation bath-immiscible liquids on the membranes morphology and performance of the fabricated membranes for wastewater treatment, Persian Gulf University, 2013-2015.
- MSc candidate: Ehsan Ghaderi, Fabrication and development of composite polymeric membrane by interfacial polymerization method for natural gas dehydration., Persian Gulf University, 2013-2015.
- MSc candidate: Abolfazl Bikhovf, Modelling of fouling of ultrafiltration membranes incorporating nanoparticles, Persian Gulf University, 2015.

Teaching:

- Teaching courses such as Material and Energy Balances, Fluid Mechanics I and II, Gas Conditioning and Processing I and II, Two-Phase Flow Fluid Mechanics, Gas Transmission and Distribution, Numerical Analysis, Physical chemistry, Polymer chemistry and fundamentals, Membrane Technology, (2000-2015) for Department of Chemical Engineering, Persian Gulf University.

Keynote speaker:

- Iran, Shiraz, nano-technology conference” NANOTECHNOLOGY MEETS MEMBRANE TECHNOLOGY: The New Emerging Advanced Material for Gas Separation Processes”, 2010.
- Indonesia, Bandung, MST2010” NANOTECHNOLOGY MEETS MEMBRANE TECHNOLOGY: Insight into Advanced Material for Gas Separation Processes”, 2010.
- Singapore Nano-science conference” NANOTECHNOLOGY MEETS MEMBRANE TECHNOLOGY: The New Emerging Advanced Material for Gas Separation Processes”, 2011

- Iran, Bushehr, research week” MODELLING OF MIXED MATRIX MEMBRANES INCORPORATING HALLOYSITE FILLER FOR GAS SEPARATION”, Persian Gulf University, 2012.

Workshop:

- Polymeric membranes for Gas separation, University Teknologi Malaysia, 2011.
- Nanotechnology and membranes processes, Persian Gulf University, 2013.
- Application of membrane technology in gas separation processes, Parsian gas refinery plant, 2014.

LIST OF PUBLICATIONS

- **S. A. Hashemifard**, and R. Azin, New Experimental Aspects of Carrier Gas Process, *Desalination*, **164**(2004),125-133.
- **S. A. Hashemifard**, A.F.Ismail, T. Matsuura, Prediction of Gas Permeability in Mixed Matrix Membranes Using Theoretical Models, *Journal of Membrane Science*, **347**(2010), 53-61.
- **S. A. Hashemifard**, A.F.Ismail, T. Matsuura, A New Theoretical Gas Permeability Model Using Resistance Modeling for Mixed Matrix Membrane Systems, *Journal of Membrane Science*, **350**(2010), 259-268.
- A. F . Ismail, R. Norida, W. A. W. Abdul Rahman, T. Matsuura, **S. A. Hashemifard**, Preparation and Characterization of Hyperthin-Skinned and High Performances Asymmetric Polyethersulfone Membrane for Gas Separation, *Desalination, Special Issue Honoring Prof. David Hasson*, **273** (2011) 93–104.
- M. Mofarahi, **S. A. Hashemifard**, New Mixing Rule For Predicting Multi-Component Gas Adsorption, *Adsorption*, **17** (2011) 311–323.
- W.A.W. Rafizah, A.F. Ismail T. Matsuura, **S. A. Hashemifard**, A. Suhaimi, Structure and Gas Transport Behavior of Polysulfone /Polyacrylonitrile-

Carbon Molecular Sieve Mixed Matrix Membrane, *Applied Membrane Science & Technology*, **12**(2011) 43-52.

- **S. A. Hashemifard**, A.F.Ismail, T. Matsuura, Effects of Montmorillonite Nano-Clay Fillers on PEI Mixed Matrix Membrane for CO₂ Removal, *Chemical Engineering Journal*, **170** (2011) 316–32. TOP CITED PAPERS FOR 2011 and 2012
- **S. A. Hashemifard**, A.F.Ismail, T. Matsuura, Mixed Matrix Membrane Incorporated with Large Pore Size Halloysite Nanotubes (HNT) as Filler for Gas Separation: Experimental, *Journal of Colloid & Interface Science*, **359** (2011) 359–370.
- **S. A. Hashemifard**, A.F.Ismail, T. Matsuura, Co-Casting Technique for Fabricating Dual-Layer Flat Sheet Membranes for Gas Separation, *Journal of Membrane Science*, **375** (2011) 258–267.
- N.H. Rahim, A.F. Ismail, A. Mustafa, T. Matsuura, B.C. Ng, S. Abdullah, , **S. A. Hashemifard**, Gas Separation Performance of Polyethersulfone /Multiwalled Carbon Nanotubes Mixed Matrix Membranes, *Separation and Purification Technology*, **80** (2011) 20–31.
- **S. A. Hashemifard**, A.F.Ismail, T. Matsuura, Mixed Matrix Membrane Incorporated with Large Pore Size Halloysite Nanotubes (HNT) as Filler for Gas Separation: Morphological Diagram, *Chemical Engineering Journal*, **172** (2011) 581– 590.
- A.F.Ismail, **S. A. Hashemifard**, T. Matsuura, Facilitated Transport Effect of Ag⁺ Ion Exchanged Halloysite Nanotubes on the Performance of Polyetherimide Mixed Matrix Membrane for Gas Separation, *Journal of Membrane Science*, **379** (2011) 378– 385.
- N. S. A. Bakar, A. F. Ismail, **S. A. Hashemifard**, A. Mustafa, A. Suhaimi, The effect of silica loading on the performance and morphology of polyimide-silica hybrid membrane, *Applied Membrane Science & Technology*, **12** (2012) 43-52.

- **S. A. Hashemifard**, A. F. Ismail, T. Matsuura, To what extent the conventional gas permeation testing method is reliable for membrane systems? , *Separation and Purification Technology*, **114** (2013) 90–98.
- **S. A. Hashemifard**, A. F. Ismail, T. Matsuura, Predicting the structural parameters of integrally skinned porous membranes, *Journal of Membrane Science*, **454**(2014)451–462.
- M. Rezaei DashtArzhandi, A.F. Ismail, **S.A. Hashemifard**, T. Matsuura, Preparation and characterization of PVDF-montmorillonite mixed matrix hollow fiber membrane for gas–liquid contacting process, *Chemical Engineering Research and Design*, 92 (2014) 2449–2460.
- M. Rezaei DashtArzhandi, A.F. Ismail, **S.A. Hashemifard**, Gh. Bakeri, T. Matsuura, Experimental study on the performance and long-term stability of PVDF/Montmorillonite hollow fiber mixed matrix membranes for CO₂ separation process, *International Journal of Greenhouse Gas Control* 26 (2014) 147–157.
- M. Rezaei DashtArzhandi, A.F. Ismail, Gh. Bakeri., **S.A. Hashemifard**, T. Matsuura, Effect of general montmorillonite and Cloisite 15A on structural parameters and performance of mixed matrix membranes contactor for CO₂ absorption, *Chemical Engineering Journal* 260 (2015) 875–885.
- **S.A. Hashemifard**, A.F. Ismail, T. Matsuura, M. Rezaei DashtArzhandi, Performance of Silicon Rubber Coated Polyetherimide Hollow Fibers for CO₂ Removal via a Membrane Contactor, *RSC Advances*, 2015, DOI: 10.1039/C5RA00085H
- **S.A. Hashemifard**, T. Matsuura, A.F. Ismail, M. Rezaei Dasht Arzhandi, D. Rana, G. Bakeri, Characterization of partial pore wetting in hollow fibergas absorption membrane contactors: An EDX analysis approach, *Chemical Engineering Journal* (2015), doi: <http://dx.doi.org/10.1016/j.cej.2015.07.036>
- A. Moslehyani, M. Mobaraki , A. F. Ismail, T. Matsuura, **S. A. Hashemifard**, M. H. D. Othman, A. Mayahi, M. Rezaei DashtArzhandi, M. Soheilmoghaddam, E. Shamsaei, Effect of HNTs modification in

nanocomposite membrane enhancement for bacterial removal by cross-flow ultrafiltration system, *Reactive and Functional Polymers*, in press, 2015.

- M. Saberi, A. A. Dadkhah, **S. A. Hashemifard**, Modeling of simultaneous competitive mixed gas permeation and CO₂ induced plasticization in glassy polymers, *Journal of Membrane Science*, in press, 2016.
- Masoud Saberi, **S. A. Hashemifard**, A. A. Dadkhah, Modeling of CO₂/CH₄ gas mixture permeation and CO₂ induced plasticization through asymmetric cellulose acetate membrane, *RSC Advances*, 2016, Accepted Manuscript.
- M. Rezaei-DashtArzhandi, A.F. Ismail, M. Ghanbari, Gh. Bakeri, **S.A. Hashemifard**, T.Matsuura, A. Moslehyani, An Investigation of Temperature Effects on the Properties and CO₂ Absorption Performance of Porous PVDF/Montmorillonite Mixed Matrix Membranes, *Journal of Natural Gas Science and Engineering*, 31 (2016) 515–524.
- M. Rezaei-DashtArzhandi, A. F. Ismail, Gh. Bakeri, **S. A. Hashemifard** and T. Matsuura, Effect of hydrophobic montmorillonite (MMT) on PVDF and PEI hollow fiber membranes in gas–liquid contacting process: a comparative study, *RSC Adv.*5 (2015) 103811–103821.
- M. Teimuri, **S.A. Hashemifard**, A.F. Ismail, M. Abbasi, The impact of nonpolar coagulation bath-immiscible liquid additives on the polyethersulfone membranes structure and performance, *Journal of applied polymer science* (2016) 44509-44521.
- H. Ahmadi, **S. A. Hashemifard**, A. F. Ismail, A research on CO₂ removal via hollow fiber membrane contactor: The effect of heat treatment, *Chemical Engineering Research and Design*, **120**(2017)218–230
- Y. Rasouli, M. Abbasi, **S. A. Hashemifard**, Oily wastewater treatment by adsorption-MF hybrid process using PAC, natural zeolite powder and low cost ceramic membranes, *Water Science & Technology*, DOI: 10.2166/wst.2017.247
- Y. Rasouli, M. Abbasi, **S. A. Hashemifard**, Investigation of in-line coagulation-MF hybrid process for oily wastewater treatment by using novel

ceramic membranes, Journal of Cleaner Production. DOI:
10.1016/j.jclepro.2017.05.134

CONFERENCES

- **S. A. Hashemifard**, and F.Rashidi, Production of Fluorspar from Acidic Waste Water Containing Fluorine, The 4th Iranian Congress of Chemical Engineering, Amirkabir University, Tehran, 1999.
- **S. A. Hashemifard**, Modification of Standing Model for Gas Condensate Systems to Predict the Equilibrium Constant, The 9th Iranian Congress of Chemical Engineering, Science and Technology University, Tehran, 2004.
- **S. A. Hashemifard**, F.Ebrahimzadeh, Treatment of Salt Water in Salt Plant for Decreasing Calcium and Magnesium Salt, The 9th Iranian Congress of Chemical Engineering, Science and Technology University, Tehran, 2004.
- **S. A. Hashemifard**, S. Karimi, Evaluation and Optimization of Water-Ammonia Absorption-Refrigeration Cycle as a Low Capacity Domestic Air Conditioner, The 10th Iranian Congress of Chemical Engineering, Sistan and Baluchestan University, Zahedan, Nov.2005.
- M. Mofarahi, **S. A. Hashemifard**, Predicting Gas Adsorption Using Covolume Dependent Mixing Rule, Eleventh International Conference on Properties and Phase Equilibria for Product and Process Design, Greece-Hersonissos, 2007
- **S. A. Hashemifard**, A.F.Ismail, Comparison of Gas Permeability Models for Mixed Matrix Membranes, 7th International Conference on Membrane Science and Technology, Kuala Lumpur, Corus Hotel, Malaysia, 13th-15th May 2009.
- **S. A. Hashemifard**, A.F.Ismail, T. Matsuura, Incorporation Effects of Four Montmorillonite Nano-Clays on PEI Mixed Matrix Membrane for CO₂ Removal, (IGCESH2010), Johor, Malaysia, Nov. 2010.

- **S. A. Hashemifard**, A.F.Ismail, T. Matsuura, A Novel Permeability-Selectivity Morphological Diagram For Mixed Matrix Membranes Incorporating Large Pore Size Fillers, 8th International Conference on Membrane Science and Technology (MST2010), Indonesia, Bandung, Dec. 2010.
- **S. A. Hashemifard**, A.F.Ismail, T. Matsuura, Mixed Matrix Membrane Comprising Polyetherimide with Naturally Occurring Modified Halloysite Nanotubes for Gas Separation, 8th International Conference on Membrane Science and Technology (MST2010), Indonesia, Bandung, Dec. 2010.
- A. Moslehyani, A.F. Ismail, R.A. Malek, **S.A. Hashemifard**, Polyethersulfone Silver Halloysite Nanotubes Mixed Matrix Membrane for Bacterial Removal (Presented), 4th International Conference On Biotechnology For The Wellness Industry, Malaysia, 2012.
- A. Moslehyani, A.F. Ismail, R.A. Malek, **S.A. Hashemifard**, Effect of Ag⁺ Ion Exchanged Halloysite Nanotubes on the Performance of Polyethersulfone Mixed Matrix Membrane for Bacterial Removal (Accepted) Euro Membarne 2012
- Moslehyani, A.F. Ismail, **S.A. Hashemifard**, The 10th International Conference on Membrane Science and Technology (MST2012), Thailand, 2012.
- M. Rezaei-Darzhandi, A.F.Ismail, **S. A. Hashemifard**, T. Matsuura, Preparation of porous PVDF/montmorillonite hollow fibre mixed matrix membrane contactor via a phase inversion method to capture CO₂, 11th International Conference on Membrane Science and Technology, Kuala Lumpur, Seri Pacific Hotel, Malaysia, 28th-30th August 2013.
- H. Junoh, A.F.Ismail, **S. A. Hashemifard**, Effect of heat treatment parameters on the performance of asymmetric polyetherimide (PEI) hollow fibre membrane for CO₂/CH₄ gas separation, 11th International Conference on Membrane Science and Technology, Kuala Lumpur, Seri Pacific Hotel, Malaysia, 28th-30th August 2013.
- **S. A. Hashemifard**, A.F.Ismail, T. Matsuura, The reliability of the conventional gas permeation testing method for characterizing the porous

asymmetric membranes, 11th International Conference on Membrane Science and Technology, Kuala Lumpur, Seri Pacific Hotel, Malaysia, 28th-30th August 2013.

- M. Rezaei-Darzhandi, A.F.Ismail, **S. A. Hashemifard**, T. Matsuura, Mixed matrix membranes (MMMs) comprising PVDF polymer with dispersed montmorillonite clay particles for CO₂ absorption, 11th International Conference on Membrane Science and Technology, Kuala Lumpur, Seri Pacific Hotel, Malaysia, 28th-30th August 2013.
- **S. A. Hashemifard**, A.F. Ismail, T. Matsuura, M. Rezaei Dasht Arzhandi, Performance of Silicon Rubber Coated Hollow Fiber Membrane Contactor for CO₂ Gas Absorption, The 15th Iranian Congress of Chemical Engineering, Tehran University, Tehran, 2015.
- **S. A. Hashemifard**, M. Saberi, M. Rezaei, M. R. Rahnama, Synthesis and optimization of mixed matrix membranes incorporating nanoparticles for treatment of industrial wastewater in Asaluyeh, the first international conference on oil gas and petrochemical industries tehran 2015.
- S. H. Ahmadi, **S. A. Hashemifard**, A study on the effect of heat treatment on the performance of PEI hollow fiber membrane contactor for carbon dioxide separation, the first international conference on oil gas and petrochemical industries tehran 2015.
- M. Teimoori, **S. A. Hashemifard**, Mohsen Abbasi, Effect of normal alkane additives on the structural parameters of polyethersulfone ultrafiltration membranes, 12th International Conference on Membrane Science and Technology, Tehran, Tehran University, Iran, 1st-3rd November 2015.
- M. Saberi, A. A. Dadkhah, **S. A. Hashemifard**, Modeling of mixed gas competitive permeation in cellulose acetate and CO₂ induced plasticization, 12th International Conference on Membrane Science and Technology, Tehran, Tehran University, Iran, 1st-3rd November 2015.
- M. Saberi, **S. A. Hashemifard**, A. A. Dadkhah, Thickness dependence of CO₂-induced plasticization of asymmetric flat sheet polyetherimide membrane, 12th International Conference on Membrane Science and Technology, Tehran, Tehran University, Iran, 1st-3rd November 2015.
- M. Teimoori, **S. A. Hashemifard**, Mohsen Abbasi, Effect of coagulation bath-immiscible liquids on the performance of PES membranes for oily wastewater treatment, "1st Biennial National Conference of Persian Gulf Oil, Gas and petrochemical", Persian Gulf University, Bushehr, Iran, 20 Apr. 2016.

- **S. A. Hashemifard**, S. Basharati pour, Effect of stretching on the Structure and Efficiency of Polyetherimide in Membrane Contactors for CO₂ Absorption, Fourth Chemical, Nanoscience and Chemical Engineering Congress, Tehran University, 2016.
- **S.A.Hashemifard**, K. Nasimafza, Modeling of liquid- gas Absorption in Asymmetric Hollow Fiber Membrane Module by Using Effective Surface Porosity, Fourth Chemical, Nanoscience and Chemical Engineering Congress, Tehran University, 2016.
- Y. Rasouli, M. Abbasi, **S. A. Hashemifard**, Oily wastewater treatment by using Mullite and MulliteAlumina ceramic MF membrane-PAC-Coagulation hybrid process “1st Biennial National Conference of Persian Gulf Oil, Gas and petrochemical”, Persian Gulf University, Bushehr, Iran, 20 Apr. 2016.

CONFERENCES COMMITTEE

- Scientific committee of “7th International Conference on Membrane Science and Technology”, Amtec, Universiti Teknologi Malaysia, Kuala Lumpur, Malaysia, 13th-15th May 2009.
- Scientific committee of “Nano-materials Technology Specialized Conference 2012”, Amtec, Universiti Teknologi Malaysia, Kuala Lumpur, Malaysia, 6th-7th March 2012.
- Scientific committee of "Oil gas conference, Bushehr, Iran, 2014
- Scientific committee of "Persian gulf Festival, Bushehr, Iran, 2015
- Scientific committee of “12th International Conference on Membrane Science and Technology”, University of Tehran, Iran, Tehran, 1-3 Nov. 2015.
- Head of Scientific committee of “1st Biennial National Conference of Persian Gulf Oil, Gas and petrochemical”, Persian Gulf University, Bushehr, Iran, 20 Apr. 2016.

REFEREE

- Referee of the research, entitled:” Synthesis of mesoporous silica catalyst in lab scale” , Persian Gulf Science and Technology Park, 2012
- Referee of the research, entitled:” Design and synthesis of nanostructured zeolite adsorbent”, Persian Gulf Science and Technology Park, 2013

- Referee of the research, entitled:” Fabrication of mixed matrix membrane for gas separation”, Persian Gulf Science and Technology Park, 2013
- Referee of the research, entitled:” An online software for two phase flow”, Persian Gulf Science and Technology Park, 2015.
- Referee of the research, entitled:” Synthesis of vegetable filter from palm fiber for treatment of water and sewage”, Persian Gulf Science and Technology Park, 2017.

AWARDS AND HONORS RECEIVED

- 4th Kharazmi festival, youth section, Best innovation in the Engineering branch, Tehran, Iran, Dec. 2003.
- Best student award, 48th convocation, Universiti Teknologi Malaysia, May 2012.
- Best of the best student award (Chancellor award), 48th convocation, Universiti Teknologi Malaysia, May 2012.
- Award of the finalist for indexed journal cumulative impact factor, Universiti Teknologi Malaysia, July 2012.
- Post-doctoral fellowship in the field of membrane technology, Universiti Teknologi Malaysia, October 2011-October 2012.
- Visiting researcher, September, 2013, AMTEC, Universiti Teknologi Malaysia
- Master excelled (Education) in Petroleum, gas and petrochemical engineering faculty, Persian Gulf University, 2015.
- Award of “TOP CITED PAPERS FOR 2011 and 2012 entitled: Effects of Montmorillonite Nano-Clay Fillers on PEI Mixed Matrix Membrane for CO₂ Removal, **170** (2011) 316–32.” by *Chemical Engineering Journal in 2013*.
- Visiting researcher, August, 2015, AMTEC, Universiti Teknologi Malaysia
- Master excelled (Research) in Petroleum, gas and petrochemical engineering faculty, Persian Gulf University, 2015.
- Award of Associate professorship, 2017.
- Award of “TOP CITED PAPERS FOR 2015 and 2016 entitled: Effect of general montmorillonite and Cloisite 15A on structural parameters and performance of mixed matrix membranes contactor for CO₂ absorption, **260**(2015)875–885.” by *Chemical Engineering Journal in 2017*.

RESEARCH ACHIEVEMENTS

- Halloysite Nano Tubes Mixed Matrix Membranes for Gas Separation
- Facilitated Transport Effect on Mixed Matrix Membranes for Gas Separation

RESEARCH INTERESTS

- Membrane gas separation.
- Membrane Contactors.
- Membrane water treatment (MF, UF, FO).
- Membrane Distillation.
- Membrane Gas conditioning and processing.