

CURRICULUM VITAE

Surname: OMIDKHAH NASRIN

First Name: MOHAMMADREZA

Present Employment: Professor,
Chemical Engineering Department
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Date of Birth: 10/01/58

Place of Birth: Tehran, Iran

Marital Status: Married with two children

Education:

1986 - 1990, Ph.D. in Chemical Engineering, UMIST, Manchester, UK
1983 - 1985, M.Sc. in Chemical Engineering, Wayne State Univ. Michigan, USA
1975 - 1982, B.Sc. in Chemical Engineering, Amir Kabir Univ. Tehran

Title of Ph.D. Thesis: " Optimising Reaction - Separation Systems Through Improved Understanding of Their Interactions"

Employments:

2010 - Present, Professor, Tarbiat Modarres University, Tehran
2013 - Present, President of Chemistry and Chemical Engineering Research Center of Iran
2003 - 2010, Associate Professor, Tarbiat Modarres University, Tehran
1990 - 2003, Assistant Professor, Tarbiat Modarres University, Tehran
2007 - 2010, Director of Research & Technology Department, National Iranian Oil Refining and Distribution Company
1999 - 2007, General Manager of Technology Development Plan, Ministry of Industries and Mines, Tehran
1998 - 1999, Sabbatical leave, UMIST, Manchester, UK
1997 - 1998, Director of international affairs of Institute for International Energy Studies (IIES), Tehran
1994 - 1995, Director General of UNIDO office in Iran
1993 - 1994, Deputy minister of industry in research and training, Tehran
1992 - 1993, Vice Chancellor in academic affairs, K.N. Toosi Univ. of Technology
1991 - 1992, Head of Technical Section of National Iranian Oil Company (NIOC)
Management Information & Computer Center, Tehran

Honoree Engagements:

President of IACHE (Iranian Association of Chemical Engineering), 2010 – Present
Member of editorial board of Petroleum Research Journal, 2009 – Present
Member of editorial board of Farayandno Journal, 2009 - 2011
Member of editorial board of Iranian Journal of Chemical Engineering, 2008 - Present
Member of editorial board of Iranian Energy Economics Journal, 1995 - Present
Member of editorial board of Iranian journal of Industry & Development, 1995 – 1999
Advisor to the minister of Industry, 1994 – 1996
Consultant to National Iranian Petrochemical Company (NIPC), 1991 -1996
Consultant to National Iranian Oil Company (NIOC), 1990 – 1995

Professional Memberships:

Member of IACHE (Iranian Association of Chemical Engineering)
Member of IPI (Iranian Petroleum Institute)
Member of Gas Engineering Association
Member of Energy Association
Member of IIES (Institute for International Energy Studies)
Member of IAEE (Iran Association for Energy Economics)
Member of the board of IAEE, 1995 - 1997, 1999 - present
Member of the World Energy Council (WEC), National Energy Committee of Iran
Chairman of the board of TPI, (Technology Park of Iran), 1997 - 1999
Member of the board of TPI, (Technology Park of Iran), 1994 - 1997

Research Area:

Process synthesis and optimization, Process integration-Pinch Technology,
Modeling and simulation, Process heat recovery systems, Energy management,
Membrane synthesis and characterization, Plasma technology,

Courses Taught:

Conceptual Design of Chemical Processes, Process Integration, Heat Transfer,
Advanced Optimization, Plant Design & Economics, Computer Aided Design,
Experimental Design & Statistical Analysis, Advanced Distillation, Unit Operations

Published papers:

1. Davari, S.; **Omidkhah, M.R.**; Abdollahi, M., “Improved antifouling ability of thin film composite polyamide membrane modified by a pH-sensitive imidazole-based zwitterionic polyelectrolyte”, Journal of Membrane Science 564, 2018, 788–799.
2. Ebadi Amooghin, A.; Sanaeepur, H.; **Omidkhah, M.R.**; Kargari, A., “ship-in-a-bottle, a new synthesis strategy for preparing novel hybrid host-guest nanocomposites for highly selective membrane gas separation”, Journal of Materials Chemistry A, 6 (4), 2018, 1751-1771.

3. Ferdowsi, M.; Yazdani, F.; **Omidkhah, M.R.**; Keshavarz, M.H., "Reliable Prediction of Shock Sensitivity of Energetic Compounds based on Small-scale Gap Test through Their Electric Spark Sensitivity", Journal of Inorganic and General Chemistry, ZAAC, 644 (16), 2018, 888-892.
4. Rahmani, S.; Mortaheb, H.R.; **Omidkhah, M.R.**; Khodadadi Dizaji, A., "Investigation on Performance of PDMS-Graphene/PES Hybrid Membrane for Pervaporative Separation of Phenol from Aqueous Streams", Polymer – Plastics Technology and Engineering, 2018, In Press.
5. Barmala, M.; Behnood, M.; **Omidkhah, M.R.**, "Photo oxidation of DBT using carbon nanotube titania composite as visible light active photo catalyst", Journal of Central South University, 25, 2018, 1642–1650.
6. Nezhadmoghadam, E.; Pourafshari Chenar, M.; **Omidkhah, M.R.**; Nezhadmoghadam, A.; Abedini, R., "Aminosilane grafted Matrimid 5218/nano-silica mixed matrix membrane for CO₂/light gases separation", Korean Journal of Chemical Engineering, 35(2), 2018, 526-534.
7. Hazrati, H.; Rostamizadeh, M.; **Omidkhah, M.R.**; Sadeghian, Z., "Influence of synthesis and operating parameters on silicalite-1 membrane properties", Comptes Rendus Chimie, 21, 2018, 19-26.
8. Keshavarz, M.H.; Ghaffarzadeh, M.; **Omidkhah, M.R.**; Farhadi, K., "Correlation between Shock Sensitivity of Nitramine Energetic Compounds based on Small-scale Gap Test and Their Electric Spark Sensitivity", Journal of Inorganic and General Chemistry, ZAAC, 2018, DOI: 10.1002/zaac.201700400.
9. Chitsaz, H.; **Omidkhah, M.R.**; Ghobadian, B.; Ardjmand, M., "Optimization of hydrodynamic cavitation process of biodiesel production by response surface methodology", Journal of Environmental Chemical Engineering, 6, 2018, 2262-2268.
10. Azami, H.; **Omidkhah, M.R.**, "Preparation, Characterization, and Application of Vertically Aligned CNT Sheets through Template Assisted Pyrolysis of PBI-Kapton" The Canadian Journal of Chemical Engineering, 95, 2017, 307-318.
11. Chehrazi, E.; Sharif, A.; **Omidkhah, M.R.**; Karimi M., "Correction to Modeling the Effects of Interfacial Characteristics on Gas Permeation Behavior of Nanotube-Mixed Matrix Membranes", ACS Applied Materials and Interfaces, 9 (42), 2017, 37321-37331.
12. Azimzadeh, H.; Akbari, A.; **Omidkhah, M.R.**, "Catalytic oxidative desulfurization performance of immobilized NMP.FeCl₃ ionic liquid on γ-Al₂O₃ support", Chemical Engineering Journal, 320, 2017, 189-200.
13. Ghasemi Estahbanati, E.; **Omidkhah, M.R.**; Ebadi Amooghin, A., "Preparation and characterization of novel Ionic liquid/Pebax membranes for efficient CO₂/light gases separation", Journal of Industrial and Engineering Chemistry, 51, 2017, 77-89.
14. Ghasemi Estahbanati, E.; **Omidkhah, M.R.**; Ebadi Amooghin, A., "Interfacial Design of Ternary Mixed Matrix Membranes Containing Pebax 1657/Silver-Nanopowder / [BMIM][BF₄] for Improved CO₂ Separation Performance", ACS Applied Materials and Interfaces, 9, 2017, 10094-10105.
15. Khosravi, T.; **Omidkhah, M.R.**; Kaliaguine, S.; Rodrigue, D., "Amine-Functionalized CuBTC/Poly(Ether-b-Amide-6) (Pebax MH 1657) Mixed Matrix

Membranes for CO₂/CH₄ Separation”, The Canadian Journal of Chemical Engineering, 95, 2017, 2024-2033.

16. Khosravi, T.; **Omidkhah, M.R.**, “Preparation of CO₂ selective composite membranes using Pebax/CuBTC/PEG-ran-PPG ternary system”, Journal of Energy Chemistry, 26, 2017, 530-539.
17. Sanaeepur, H.; Kargari, A.; Nasernejad, B.; Ebadi Amooghin, A.; **Omidkhah, M.R.**, “A novel Co²⁺ exchanged zeoliteY/cellulose acetate mixed matrix membrane for CO₂/N₂ separation”, Journal of the Taiwan Institute of Chemical Engineers, 60, 2016, 403-413.
18. Ebadi Amooghin, A.; **Omidkhah M.R.**; Sanaeepur, H.; Kargari, A., “Preparation and characterization of Ag + ion-exchanged zeolite-Matrimid ®5218 mixed matrix membrane for CO₂ /CH₄ separation”, Journal of Energy Chemistry, 25, 2016, 450-462.
19. Hosseinzadeh Beiragh H.; **Omidkhah, M.R.**; Abedini, R.; Khosravi, T.; Pakseresht, S., “Synthesis and characterization of poly (ether-block-amide) mixed matrix membranes incorporated by nanoporous ZSM-5 particles for CO₂/CH₄ separation”, Asia-Pacific Journal of Chemical Engineering, 11, 2016, 522–532.
20. Pirouzfar, V.; **Omidkhah, M.R.**, “Mathematical modeling and optimization of gas transport through carbon molecular sieve membrane and determining the model parameters using genetic algorithm”, Iran Polymer Journal, 25, 2016, 203-212.
21. Karimi S.; Ghobadian B.; **Omidkhah, M.R.**; Towfighi J.; Tavakkoli Yaraki, M., “Experimental investigation of bioethanol liquid phase dehydration using natural clinoptilolite”, Journal of Advanced Research, 7, 2016, 435-444.
22. Sadeghi, Z.; **Omidkhah, M.R.**; Masoumi, M.E.; Abedini, R., “Modification of Existing Permeation Models of Mixed Matrix Membranes Filled with Porous Particles for Gas Separation”, The Canadian Journal of Chemical Engineering, 94, 2016, 547-555.
23. Moftakhari Sharifzadeh M.M.; Ebadi Amooghin, A.; Zamani Pedram, M.; **Omidkhah, M.R.**, “Time-dependent mathematical modeling of binary gas mixture in facilitated transport membranes (FTMs): A real condition for single-reaction mechanism”, Journal of Industrial and Engineering Chemistry, 39, 2016, 48-65.
24. Ebadi Amooghin, A.; Sanaeepur, H.; Zamani Pedram, M.; **Omidkhah M.R.**; Kargari, A., “New advances in polymeric membranes for CO₂ separation”, A Book Chapter in Polymer science: research advances, practical applications and educational aspects (Méndez-Vilas, A.; Solano, A., Eds.), 2016.
25. Ebadi Amooghin, A.; **Omidkhah, M.R.**; Kargari, A., “The effects of aminosilane grafting on NaY zeolite–Matrimid®5218 mixed matrix membranes for CO₂/CH₄ separation”, Journal of Membrane Science, 490, 2015, 364–379.
26. Loloei, M.; **Omidkhah, M.R.**; Moghadassi, A.; Ebadi Amooghin, A., “Preparation and Characterization of Matrimid®5218 Based Binary and Ternary Mixed Matrix Membranes for CO₂ Separation”, International Journal of Greenhouse Gas Control, 39, 2015, 225–235.
27. Dorosti, F.; **Omidkhah M.R.**; Abedini, R., “Enhanced CO₂/CH₄ separation properties of asymmetric mixed matrix membrane by incorporating nano-porous

- ZSM-5 and MIL-53 particles into Matrimid®5218”, Journal of Natural Gas Science and Engineering, 25, 2015, 88–102.
- 28. Loloei, M.; Moghadassi, A.; **Omidkhah, M.R.**; Ebadi Amooghin, A., “Improved CO₂ separation performance of Matrimid®5218 membrane by addition of low molecular weight polyethylene glycol”, Greenhouse Gas Science and Technology, 2015, doi: 10.1002/ghg.1496.
 - 29. Najari, S.; Hosseini, S.S.; **Omidkhah, M.R.**; Tan, N.R., “Phenomenological modeling and analysis of gas transport in polyimide membranes for propylene/propane separation”, RSC Advances, 5, (58), 2015, 47199-47215.
 - 30. Khosravi, T.; **Omidkhah, M.R.**, “Preparation of CO₂-philic polymeric membranes by blending poly(ether-*b*-amide-6) and PEG/PPG-containing copolymer”, RSC Advances, 5, (17), 2015, 12849–12859.
 - 31. Ebadi Amooghin, A.; **Omidkhah, M.R.**; Kargari, A., “Enhanced CO₂ transport properties of membranes by embedding nano-porous zeolite particles into Matrimid®5218 matrix”, RSC Advances, 5, (12), 2015, 8552-8565.
 - 32. Akbari, A.; **Omidkhah, M.R.**; Towfighi Darian J., “Facilitated and selective oxidation of thiophenic sulfur compounds using MoO_x/Al₂O₃–H₂O₂ system under ultrasonic irradiation”, Ultrasonics Sonochemistry, 23, 2015, 231–237.
 - 33. Ranjbaran, F.; **Omidkhah, M.R.**; Ebadi Amooghin, A., “The novel Elvaloy4170/functionalized multi-walled carbon nanotubes mixed matrix membranes: Fabrication, characterization and gas separation study”, Journal of the Taiwan Institute of Chemical Engineers, 49, 2015, 220–228.
 - 34. Vaez, M.; **Omidkhah, M.R.**; Alijani, S.; Zarringhalam Moghaddam, A.; Sadrameli, M.; Gholipour Zanjani, N., “Evaluation of photocatalytic activity of immobilized titania nanoparticles by support vector machine and artificial neural network”, The Canadian Journal of Chemical Engineering, 93, (6), 2015, 1009–1016.
 - 35. Sadeghi, Z.; **Omidkhah, M.R.**; Masoumi, M.E., “New Permeation Model for Mixed Matrix Membrane with Porous Particles”, International Journal of Chemical Engineering and Applications, 6, (5), 2015, 325-330.
 - 36. Abedini, R.; **Omidkhah, M.R.**; Dorost, F., “CO₂/CH₄ Separation by a Mixed Matrix Membrane of Polymethylpentyne/MIL-53 Particles”, Iranian Journal of Polymer Science and Technology, 27, (4), 2014, 337-351.
 - 37. Tavassolirizi, Z.; Shams, K.; **Omidkhah, M.R.**, “Platinum recovery from model media and a Pt–Sn/alumina spent catalyst extract using corn husk-based adsorbent”, Journal of Industrial and Engineering Chemistry, 2014, In Press.
 - 38. Abedini R.; **Omidkhah, M.R.**; Dorost, F., “Hydrogen separation and purification with poly (4-methyl-1-pentyne)/MIL 53 mixed matrix membrane based on reverse selectivity” International Journal of Hydrogen Energy, 39, (15), 2014, 7897–7909.
 - 39. Dorost, F.; **Omidkhah, M.R.**; Abedini, R., “Fabrication and characterization of Matrimid/MIL-53 mixed matrix membrane for CO₂/CH₄ separation”, Chemical Engineering Research and Design, 92, (11), 2014, 2439–2448.
 - 40. Abedini, R.; **Omidkhah, M.R.**; Dorost, F., “Highly permeable poly(4-methyl-1-pentyne)/NH₂-MIL 53 (Al) mixed matrix membrane for CO₂/CH₄ separation”, RSC Advances, 4, (69), 2014, 36522-36537.

41. Zamani Pedram, M.; **Omidkhah, M.R.**; Ebadi Amooghin, A.; Yaghani, R., “Facilitated transport by amine-mediated poly(vinyl alcohol) membranes for CO₂ removal from natural gas”, *Polymer Engineering & Science*, 54, (6), 2014, 1268–1279.
42. Akbari, A.; **Omidkhah, M.R.**; Towfighi Darian, J., “Optimization of operating conditions in oxidation of dibenzothiophene in the light hydrocarbon model” *Chemical Industry and Chemical Engineering Quarterly*, 20, (3), 2014, 315–323.
43. Zamani Pedram, M.; **Omidkhah, M.R.**; Ebadi Amooghin, A., “Synthesis and characterization of diethanolamine-impregnated cross-linked polyvinylalcohol/glutaraldehyde membranes for CO₂/CH₄ separation”, *Journal of Industrial and Engineering Chemistry*, 20, (1), 2014, 74–82.
44. Hosseini, S.S.; **Omidkhah, M.R.**; Zarringhalam Moghaddam, A.; Pirouzfar, V.; Krantz, W.B.; Tan N.R., “Enhancing the properties and gas separation performance of PBI–polyimides blend carbon molecular sieve membranes via optimization of the pyrolysis process”, *Separation and Purification Technology*, 122, 2014, 278-289.
45. Pirouzfar, V.; Hosseini, SS.; **Omidkhah, M.R.**; Moghaddam AZ., “Modeling and optimization of gas transport characteristics of carbon molecular sieve membranes through statistical analysis”, *Polymer Engineering & Science*, 54, (1), 2014, 147–157.
46. Pirouzfar, V.; Zarringhalam Moghaddam A.; **Omidkhah, M.R.**; Hosseini, SS., “Investigating the effect of dianhydride type and pyrolysis condition on the gas separation performance of membranes derived from blended polyimides through statistical analysis”, *Journal of Industrial and Engineering Chemistry*, 20, (3), 2014, 1061–1070.
47. Akbari, A.; **Omidkhah, M.R.**; Towfighi Darian J., “Investigation of process variables and intensification effects of ultrasound applied in oxidative desulfurization of model diesel over MoO₃/Al₂O₃ catalyst”, *Ultrasonics Sonochemistry*, 21, (2), 2014, 692–705.
48. Ebadi Amooghin, A.; Zamani Pedram, M.; **Omidkhah, M.R.**; Yegani, R., A novel CO₂-selective synthesized amine-impregnated cross-linked polyvinylalcohol/ glutaraldehyde membrane: fabrication, characterization, and gas permeation study, *Greenhouse Gases: Science and Technology*, 3, (5), 2013, 378–391.
49. Zamani Pedram, M.; **Omidkhah, M.R.**; Ebadi Amooghin, A.; Yegani, R.; Moghadam, F., “DEA-Impregnated Cross-Linked Polyvinyl Alcohol/Glutaraldehyde Polymeric Systems as CO₂/CH₄ Gas Separation Membranes”, *Iranian Journal of Polymer Science and Technology*, 25, (6), 2013, 477-489.
50. Pakizeh, M.; Neghad Moghadam, A.; **Omidkhah, M.R.**; Namvar-Mahboub, M.” Preparation and characterization of dimethyldichlorosilane modified SiO₂/PSf nanocomposite membrane”, *Korean Journal of Chemical Engineering*, 30, (3), 2013, 751–760.
51. Gilani, N.; Towfighi, J.; Rashidi, A.; Mohammadi, T.; **Omidkhah, M. R.**; Sadeghian A.,” Investigation of H₂S separation from H₂S/CH₄ mixtures using functionalized and non-functionalized vertically aligned carbon nanotube membranes”, *Applied Surface Science*, 270, 2013, 115-123.

52. **Omidkhah, M.R.**; Zamani Pedram, M.; Ebadi Amooghin, A., “Facilitated Transport of CO₂ through DEA-Mediated Poly(Vinyl alcohol) Membrane Cross-Linked by Formaldehyde”, *Journal of Membrane Science & Technology*, 3, (1), 2013, 119.
53. Mohammadi, A.; **Omidkhah, M. R.**; Karimzadeh, R.; Haghtalab, A., “Structural modeling of petroleum fractions based on mixture viscosity and Watson K factor”, *Korean Journal of Chemical Engineering*, 30, (2), 2013, 465-473.
54. Abbaszaadeh, A.; Ghobadian, B.; **Omidkhah M. R.**; Najafi ,G.; “Current biodiesel production technologies: A comparative review”, *Energy Conversion and Management*, 63, 2012, 138-148.
55. Peyvandi, K.; Haghtalab, A.; **Omidkhah, M.R.**, Using an electrochemical technique to study the effective variables on morphology and deposition of CaCO₃ and BaSO₄ at the metal surface”, *Journal of Crystal Growth*, 354, 2012, 109-118.
56. Gilani, N.; Towfighi Daryan, J.; Rashidi, A; **Omidkhah, M.R.**, “Separation of methane–nitrogen mixtures using synthesis vertically aligned carbon nanotube membranes”, *Applied Surface Science*, 258 , 2012, 4819–4825.
57. Shamsi,S.; **Omidkhah, M.R.**, “Optimization of steam pressure levels in a total site using a thermoeconomic method”, *Energies*, 5 (3) , 2012, 702-717.
58. Tarighaleslami, A.H. ; **Omidkhah, M.R.**; Ghannadzadeh, A.; Hoseinzadeh Hesas, R., “Thermodynamic evaluation of distillation columns using exergy loss profiles: a case study on the crude oil atmospheric distillation column”, *Clean Techn. Environ. Policy*, 14 (3), 2012, 381-387.
59. Godini H. R.; Jaso S.; Xiao Shengnan; Arellano-Garcia H.; **Omidkhah, M.R.**; Wozny G., “Methane Oxidative Coupling: Synthesis of Membrane Reactor Networks”, *Ind. Eng. Chem. Res.*, 51 (22) , 2012, 7747-7761.
60. Salehi, G. R., Amidpour M., Hassanzadeh K., **Omidkhah M.R.**, “ Controllability analysis of heat integrated distillation systems for a multicomponent stream”, *Computers and Chemical Engineering*, 36, 2012, 282-293.
61. Eltejaei, H., Bozorgzadeh, H. R., Towfighi, J., **Omidkhah, M.R.**, Rezaei, M., Zanganeh, R., Zamaniyan, A., Zarringhalam A., “Methane dry reforming on Ni/Ce_{0.75}Zr_{0.25}O₂-MgAl₂O₄ and Ni/Ce_{0.75}Zr_{0.25}O₂-γ-alumina: Effects of support composition and water addition”, *Internal Journal of Hydrogen Energy*, 37, (5), 2012, 4107-4118.
62. Shariati, A., **Omidkhah, M.R.**, Pedram, M.Z., “New permeation models for nanocomposite polymeric membranes filled with nonporous particles”, *Chemical Engineering Research and Design*, 90, (4), 2012, 563-575.
63. Shamkhali, A., **Omidkhah, M.R.**, Towfighi, J., Jafarinrasr, M., “Production of synthesis gas by combination of steam and dry reforming using GHR”, *Petroleum science and technology*, 30, (6), 2012, 594-604.
64. Abdollahi-Demneh, F., Moosavian, M.A., **Omidkhah, M.R.**, Bahmaniar, H.,” Calculating exergy in flowsheeting simulators: A HYSYS implementation”, *Energy*, 36, 2011, 5320-5327.
65. Eltejaei, H., Towfighi, J., Bozorgzadeh, H.R., **Omidkhah, M.R.**, Zamaniyan, A., “ The influence of preparation conditions on ZrO₂ nanoparticles with different PEG-

- PPG–PEG surfactants by statistical experimental design”, Materials Letters, 65, 2011, 2913-2916.
66. Dorost, F., **Omidkhah, M.R.**, Pedram, M.Z., Moghadam, F.,” Fabrication and characterization of polysulfone/polyimide–zeolite mixed matrix membrane for gas separation”, Chemical Engineering Journal, 171, 2011, 1469-1476.
67. Nikookar, M., **Omidkhah, M.R.**, Pazuki, G.R, Sahranavard, L.,” An Experimental Measurement and Modeling of Asphaltene Precipitation in Crude Oil”, Energy Sources, Part A, 33, 2011, 1344–1353.
68. Hossainzadeh Hesas, R., Tarigholeslami, A.H., **Omidkhah, M.R.**, Sharifzadeh Baei, M., “An Economical Comparative Study of Different Methods for Decreasing Cooling Water Makeup Cost in Oil Refineries”, World Applied Science Journal, 12, (7), 2011, 988-998.
69. Godini, H., Ghadrdan, M., **Omidkhah, M.R.**, Madaeni, S.S., “Prediction of the dialysis process performance using Artificial Neural Network (ANN)-Part II”, Desalination, 265, (1-3), 2011, 11-21.
70. Moghadam, F., **Omidkhah, M.R.**, Vasheghani-Farahani, E., Pedram, M.Z., Dorost, F., “The effect of TiO₂ nanoparticles on gas transport properties of Matrimid5218-based mixed matrix membranes”, Separation and Purification Technology, 77, 2011, 128-136.
71. Godini, H.R., Arellano-Garcia, H., **Omidkhah, M.R.**, Karimzadeh, R., Wozny, G., “Model-Based Analysis of Reactor Feeding Policies for Methane Oxidative Coupling”, Industrial and Engineering Chemistry Research, 49, (8), 2010, 3544-3552.
72. Jaso, S., Godini, H., Arellano-Garcia, H., **Omidkhah, M.R.**, Wozny, G., "Analysis of Attainable Reactor Performance for the Oxidative Methane Coupling Process", Chemical Engineering Science, 65, (24), 2010, 6341-6352.
73. Zangouei, M., Moghadam, A.Z., Razeghi, A., **Omidkhah, M.R.**, “Production of Syngas by Combination of CO₂ Reforming and Partial Oxidation of CH₄ over Ni/Al₂O₃ Catalysts in Fixed-bed Reactor”, International Journal of Chemical Reactor Engineering, 8, 2010, 1-15.
74. Yarahmadi, R., Mortazavi, B., **Omidkhah, M.R.**, Asilian, H., Moridi, P., “Examination of the optimized conditions for the conversion of Nox pollution in a DBD-plasma reactor”, Iranian Journal of Chemistry & Chemical Engineering, 29, (1), 2010, 133-140.
75. Abdollahi-Demneh, F., Moosavian, M.A., Montazer-Rahmati, M.M., **Omidkhah, M.R.**, Bahmaniar, H.,”Comparison of the prediction power of 23 generalized equations of state: Part I - Saturated thermodynamic properties of 102 pure substances”, Fluid Phase Equilibria, 288, (1-2), 2010, 67-82.
76. Abdollahi-Demneh, F., Moosavian, M.A., Montazer-Rahmati, M.M., **Omidkhah, M.R.**, Bahmaniar, H.,” Comparison of the prediction power of 23 generalized equations of state: Part II. parametric evaluation”, Fluid Phase Equilibria, 291, (1), 2010, 48-58.
77. Nosratinia, F., **Omidkhah, M.R.**, Bastani, D., Seifkordi, A.A., “Investigation of mass transfer coefficient under jetting conditions in a liquid-liquid extraction system”, Iranian Journal of Chemistry & Chemical Engineering, 29, (1), 2010, 1-12.

78. Yarahmadi,R., Mortazavi, S.B., **Omidkhah, M.R.**, Asilian, H., Khavanin, A., "An investigation on the effective parameters of Nox reduction process in a cold plasma reactor", Journal of Environmental Science & Technology, 11, (4), 2010, (in Farsi).
79. Yarahmadi,R., Mortazavi, S.B., **Omidkhah, M.R.**, Asilian, H., Khavanin, A., Moridi, P., "Nox reduction from air using modified ZSM-5", Journal of Environmental Science & Technology, 11, (3), 2009, (in Farsi).
80. Pirozfar, V., Moghadam, A.Z., Ommi, F., **Omidkhah, M.R.**, "Investigation of oxygenate and nitrate component additive on physico-chemical properties and exhaust emmission of diesel fuel", Journal of Fuel and Combustion, 1, (2), 2008-2009.
81. Godini, H.R., Arellano-Garcia, H., **Omidkhah, M.R.**, G. Wozny, "Analysis of oxidative coupling of methane in membrane reactors", Computer Aided Chemical Engineering, 26, 2009, 123-128.
82. Alam, H.G., Moghaddam, A.Z., **Omidkhah, M.R.**, "The influence of process parameters on desulfurization of Mezino coal by HNO₃/HCl leaching", Fuel Processing Technology, 90, 2009, 1-7.
83. **Omidkhah, M.R.**, Zeraatkar, A.R., Hojjati, M.R., "Pressure Level Optimization in Utility System Considering Variation of Physical and Thermodynamic Properties", Iranian Journal of Chemistry & Chemical Engineering, 28, (1), 2009, (in Farsi).
84. Akbari, A., **Omidkhah, M.R.**, Hojjati, M.R., "Heat Exchanger Network Area Targeting Considering Stream Allocation to Shell or Tubes", Computers and Chemical Engineering, 32, 2008, 3143-3152.
85. Asgharpour, B., Karimzadeh, R., **Omidkhah, M.R.**, "Data reconciliation and data error detection on parameters of olefine reactor using least square, Cauchy and M-estimator objective functions", Iranian Journal of Chemistry & Chemical Engineering, 27, (3), 2008, (in Farsi).
86. Pahlavanzadeh, H., Zamzamian, A.H., **Omidkhah, M.R.**, "Analysis of effective parameters on a rotary desiccant wheel performance", Sharif Journal of Science & Technology, 40, 2008, 155-162, (in Farsi).
87. Biglari, M., Zarringhalam, A., **Omidkhah, M.R.**, "Gas permeation through non-porous silica membrane prepared with and without template by Sol-Gel method", Journal of Engineering Faculty of Tehran University, 42, 2, 2008, (in Farsi).
88. Abghari.,S.Z., Towfighi, J., Karimzadeh, R., **Omidkhah, M.R.**, "Determination of yield distribution of olefine production by thermal cracking of atmospheric gasoil", Korean Journal of Chemical Engineering, 25(4), 2008, 681-692.
89. Abghari.,S.Z., Towfighi, J., Karimzadeh, R., **Omidkhah, M.R.**, "Application of response surface methodology in study of the product yield distribution of thermal cracking of atmospheric gasoil", Scientia Iranica, 15, 4, 2008.
90. Nikookar, M., **Omidkhah, M.R.**, Pazuki, G.R, "Prediction of density and solubility parameter of heavy oils and SARA fractions using cubic equation of state", Petroleum Science and Technology, 26, (16), 2008.
91. Nikookar, M., **Omidkhah, M.R.**, Pazuki, Gholam Reza, "Modification of a thermodynamic model and an equation of state for accurate calculation of asphaltene precipitation phase behavior", Fuel, 87, (1), 2008, 85-91.

92. Pazuki, G.R, Nikookar, M., **Omidkhah, M.R.**, "Application of a new cubic equation of state to computation of phase behavior of fluids and asphaltene precipitation in crude oil", *Fluid Phase Equilibria* 254, 2007, 42-48.
93. Pourabdollah, K.; **Omidkhah, M.R.**; Manteghian, M., "Study on the Content and Diffusion Model of MTBE in Underground Water in Tehran District", *Iranian Journal of Chemistry & Chemical Engineering*, 26, (2), 2007, (in Farsi).
94. Karimzadeh, R., Hemmatian A., **Omidkhah, M.R.**, "The effect of coil configuration on run length of thermal cracking reactors", *The International Journal of Chemical Reactor Engineering*, 5, (1), 2007, 12-24.
95. Ganji, H., Manteghian, M., Sadaghianizadeh, K., **Omidkhah, M.R.**, Rahimi Mofrad, H., "Effect of different surfactants on methane hydrate formation rate, stability and storage capacity", *Fuel*, 86, (3), 2007, 434-441.
96. Pakizeh, M., **Omidkhah, M.R.**; Karimzadeh, R., Zarringhalam, A., "Study of Catalyst, Aging Time and Surfactant Template Effects on Silica Inorganic Polymer Characteristics", *Iranian Polymer Journal*, 2, 2007, 147-153, (in Farsi).
97. Pakizeh, M.; **Omidkhah, M.R.**; Zarringhalam, A., "Study of mass transfer through new templated silica membranes prepared by sol-gel method", *International Journal of Hydrogen Energy*, 32, 2007, 2032-2042.
98. Pakizeh, M.; **Omidkhah, M.R.**; Zarringhalam, A., "Synthesis and characterization of new silica membranes using template-sol-gel technology", *International Journal of Hydrogen Energy*, 32, 2007, 1825-1836.
99. Hojjati, M.R.; **Omidkhah, M.R.**, Panjehshahi, M.H.; "Heat Exchanger Network Design with Pressure Drop Consideration Using Mathematical Programming", *Iranian Journal of Chemistry & Chemical Engineering*, 25, 2006, (in Farsi).
100. Naddaf, A.; **Omidkhah, M.R.**, "Reduction of NO_x, CO_x and SO_x in Industrial Furnaces", *Iranian Journal of Chemistry & Chemical Engineering*, 25, (1), 2006 (in Farsi).
101. Hosseini, S.H., Seifi, H., Parsa, M., **Omidkhah, M.R.**, Farmand, M., Ghaznavi, M., "A New Generation Allocation and Expansion Planning Algorithm Including Transmission System Effects", *Esteghlal Journal*, 24, (1), 2004, (in Farsi).
102. Towfighi, J. Modarres, J., **Omidkhah, M.R.**, Niaezi, A., "Estimation of Kinetic Parameters of Coking Reaction in Pyrolysis of Naphtha", *International Journal of Engineering*, 17, (4), 2004, 313-339.
103. Hojjati, M.R.; **Omidkhah, M.R.**; Panjehshahi, M.H.; "Cost Effective Heat Exchanger Network Design with Mixed Materials of Construction", *Iranian Journal of Chemistry & Chemical Engineering*, 23, (2), 2004, 89-100.
104. Bani, R.; **Omidkhah, M.R.**, "Synthesis of Tomoxifen Citrate with Low E Isomer", *Iranian Journal of Chemistry & Chemical Engineering*, 23,(1), 2004, (in Farsi).
105. Hojjati, M.R.; **Omidkhah, M.R.**, "A New Approach for Area Targeting in Heat Exchanger Network Design" , *Modarres Technical & Engineering Journal*, 10, Winter, 2003, (in Farsi).
106. Ghodsipour, N., Sadrameli, S.M., **Omidkhah, M.R.**, "Performance Optimization of a Rotary Regenerator Using Experimental Design Analysis", *Journal of Engineering Faculty of Tehran University*, 36, (4), 2003, (in Farsi).

107. **Omidkhah, M.R.**, Navid Famili, M.H., Keshtiban, J.E., "Numerical Solution of Compressible Flow Equations Inside an Ejector", 21, (1&2), 2002, (in Farsi).
108. Zarringhalam, A., **Omidkhah, M.R.**, Gholipour, N. "Predicting Fire Critical Conditions Using Fire Parameters of Materials", Journal of Engineering Faculty of Tehran University, 35, (3), 2001, (in Farsi).
109. Zarringhalam, M. A.; **Omidkhah, M.R.**, "Combustion Studies Via Heat Release Rate Method", Iranian Journal of Energy, 5, (9), 2001, (in Farsi).
110. Tehranifar, M.; **Omidkhah, M.R.** and Sadrameli, M., "Design of Heat ExchangerNetwork and Simulation of the Quench Section of Olefin Plant of Bandar Imam Petrochemical Complex ", Iranian Journal of Energy, 3, (5), 1999, (in Farsi).
111. **Omidkhah, M.R.**; Seyyed Shabestari, S.A., "Synthesis and Optimization of Separation Section of MTBE Process", Iranian Journal of Chemistry & Chemical Engineering, 13, (2), 1994.
112. Smith, R., and **Omidkhah, M.R.**, "Trade-offs and Interactions in Reaction and Separation Systems -II: Reactions With No Selectivity Losses", Trans.I.Chem.E., 71, 1993, 467-473.
113. Smith, R., and **Omidkhah, M.R.**, "Trade-offs and Interactions in Reaction and Separation Systems - I: Reactions With Selectivity Losses", Trans. I. Chem. E., 71, Sept., 1993, 467-473.

Reviewed Papers presented in conferences:

- 1- Ebadi Amooghin, A.; **Omidkhah, M.R.**; Kargari, A., Prepration of AgY zeolite through the silver ion exchange of NaY zeolite and incorporating it into the Matrimid to form a novel mixed matrix Membrane , NCWNN1394, May, 2015, Karaj, Tehran.
- 2- Mohammadi, A.; **Omidkhah, M. R.** and Ghobadian, B. Optimization of Biodiesel Production from High Free Fatty Acid Feedstocks (Part I: Continuous Process). The International Congress on Biodiesel: The Science and the Technology, November, 5-8, 2007, Vienna, Austria.
- 3- Mohammadi, A.; **Omidkhah, M. R.** and Ghobadian, B. Optimization of Biodiesel Production from High Free Fatty Acid Feedstocks (Part II: Batch/ Semi-continuous Process). The International Congress on Biodiesel: The Science and the Technology. November, 5-8, 2007, Vienna, Austria.
- 4- Mohammadi Rad, R.; Karimzadeh, R.; **Omidkhah, M.R.**, "Optimal operation of thermal cracking reactor based on fundamental models", 11th National Congress on Chemical Engineering, Tehran, Nov. 2006, (in Farsi).
- 5- Gholami, H.; Zarringhalam, A.; **Omidkhah, M.R.**, "Desulphurization of Mazino coal via floatation and leaching with Nitric acid", 11th National Congress on Chemical Engineering, Tehran, Nov. 2006, (in Farsi).
- 6- Pakizeh, M.; **Omidkhah, M.R.**; Zarringhalam, A., Shariati, M., "Gas transport mechanisms through new templated silica membranes prepared by sol-gel method", 11th National Congress on Chemical Engineering, Tehran, Nov. 2006, (in Farsi).
- 7- Pakizeh, M.; **Omidkhah, M.R.**; Zarringhalam, A., Karimzadeh, R., "Gas permeation characteristics of new silica membranes derived from template-sol-gel technology", 11th National Congress on Chemical Engineering, Tehran, Nov. 2006, (in Farsi).

- 8- Ganji, H.; Manteghian, M.; Sadaghiani, K.; **Omidkhah, M.R.**, "Promotion effect of anionic, cationic and non-ionic surfactants on methane hydrate", 11th National Congress on Chemical Engineering, Tehran, Nov. 2006, (in Farsi).
- 9- Mohammadi, A.; **Omidkhah, M.R.**; Ghobadian, B., "Conceptual design of biodiesel process using high free fatty acids as feedstock", 11th National Congress on Chemical Engineering, Tehran, Nov. 2006, (in Farsi).
- 10- **Omidkhah, M.R.**; Hojjati, M.R.; Safavi, F., "The effect of variable heat capacity on energy an area targeting of a heat exchanger network", 11th National Congress on Chemical Engineering, Tehran, Nov. 2006, (in Farsi).
- 11- Hojjati, M.R.; **Omidkhah, M.R.**, "Heat exchanger network design of Formaline unit of Sina chemical company", 11th National Congress on Chemical Engineering, Tehran, Nov. 2006, (in Farsi).
- 12- Tarigholeslami, A.H.; **Omidkhah, M.R.**, "Energy conservation of atmospheric distillation column of Tabriz refinery through exergetic analysis", 11th National Congress on Chemical Engineering, Tehran, Nov. 2006, (in Farsi).
- 13- Abghari Zahedi, S.; Towfighi, J., Karimzadeh, R.; **Omidkhah, M.R.**, "Study on thermal cracking of atmospheric gasoil for producing olefines", 11th National Congress on Chemical Engineering, Tehran, Nov. 2006, (in Farsi).
- 14- Jazayeri, M.; Karimzadeh, R.; **Omidkhah, M.R.**, "Optimization of a thermal cracking reactor based on statistical models", 11th National Congress on Chemical Engineering, Tehran, Nov. 2006, (in Farsi).
- 15- Dadkhah, M.; **Omidkhah, M.R.**; Farrokhi, F., "Converting Methane into Sythesis gas in a positive corona plasma reractor", 11th National Congress on Chemical Engineering, Tehran, Nov. 2006, (in Farsi).
- 16- Dadkhah, M.; **Omidkhah, M.R.**; Farrokhi, F., "Converting Hydrogen Sulfide into hydrogen in a positive corona plasma reractor", 11th National Congress on Chemical Engineering, Tehran, Nov. 2006, (in Farsi).
- 17- Sattari Oskouee, A.; Shahraki, F.; **Omidkhah, M.R.**, "Heat exchanger network retrofit of a distillation unit", 10th National Congress on Chemical Engineering, Zahedan, Iran, Nov. 2005, (in Farsi).
- 18- **Omidkhah, M.R.**; Nemati Shahab, S., "A study on flare gas dumping system enhancement", 10th National Congress on Chemical Engineering, Zahedan, Iran, Nov. 2005, (in Farsi).
- 19- Hemmatian, A.; Karimzadeh, R.; **Omidkhah, M.R.**, "The effect of of pyrolysis coil configuration on the operation of thermal cracking reactors", 10th National Congress on Chemical Engineering, Zahedan, Iran, Nov. 2005, (in Farsi).
- 20- **Omidkhah, M.R.**; Younesi S.S., "Flare gas recovery of Tabriz refinery", 10th National Congress on Chemical Engineering, Zahedan, Iran, Nov.2005,(in Farsi).
- 21- **Omidkhah, M.R.**, "The Main Energy Challenges of Industry in a Competitive Market", a Keynote Speech delivered in 5th National Energy Congress, Tehran, 2005, (in Farsi).
- 22- **Omidkhah, M.R.**; Zareie, M., "Recovery of Styrene-Butadien Latex from Wastewater of Bandar Imam Petrochemical Complex", Paper presented at 9th National Congress on Chemical Engineering, Tehran, Dec. 2004, (in Farsi).
- 23- **Omidkhah, M.R.**; Rahimi, K., "Recovery of Styrene from the Feed of Pyrolysis Gasoline Unit", Paper presented at 9th National Congress on Chemical Engineering, Tehran, Dec. 2004, (in Farsi).
- 24- **Omidkhah, M.R.**, "Support Program for Industrial Innovation", Paper presented at Study Meeting on Enterprise Innovation and Value Creation for Higher Growth, Asian Productivity Organization, Singapore, 26-28 Oct., 2004.

- 25- **Omidkhah, M.R.**, Moslehi Milani, M., "Hydrogen Management in Refineries", Paper Presented at the First National Seminar on Recycling and Waste Management, Tehran, 20-21 September 2004, (in Farsi).
- 26- **Omidkhah, M.R.**, " Real Time Optimization of Refinaries", Paper Presented at 27th Annual Meeting of International Association of Energy Economics, Tehran, May 2004.
- 27- **Omidkhah, M.R.**, "Promoting Energy Productivity in Industrial Sector", a Keynote Speech delivered in 4th National Energy Congress, Tehran, 2003, (in Farsi).
- 28- Tafvizi, A.; Manteghian, M. ; **Omidkhah, M.R.**, "The Effect of Adding Combined phosphor Based Gypsum on Properties of Cement", Paper presented at 8th National Congress on Chemical Engineering, Mashad, Oct. 2003, (in Farsi).
- 29- Tafvizi, A.; Manteghian, M. ; **Omidkhah, M.R.**, "The Effect of Adding TEA on Physical Properties of Portland Cement", Paper presented at 8th National Congress on Chemical Engineering, Mashad, Oct. 2003, (in Farsi).
- 30- Mirmomem, L.; **Omidkhah, M.R.**, "Run Time Optimization of Furnace of Olefin Plant", Paper presented at 7th National Congress on Chemical Engineering, Tehran, 28-31 Oct. 2002, (in Farsi).
- 31- Khorsand, K.; Zarrinpashneh, S. ; **Omidkhah, M.R.**, "Study on Parameter Changes of a Distillation Column During a Shock and Exit from Steady State", Paper presented at 7th National Congress on Chemical Engineering, Tehran, 28-31 Oct. 2002, (in Farsi).
- 32- Khorsand, K.; Zarrinpashneh, S. ; **Omidkhah, M.R.**, "Study on Operational Variables in Start Up of Distillation Column", Paper presented at 7th National Congress on Chemical Engineering, Tehran, 28-31 Oct. 2002, (in Farsi).
- 33- Ghodsiour, N.S.; Sadrameli M.; **Omidkhah, M.R.**, " Optimization of a Rotary Regenerator Parameters Using Experimental Design Method", Paper presented at 6th National Congress on Chemical Engineering, Isfahan, may 2001, (in Farsi).
- 34- Zarringhalam, M. A.; Gholipour, N.; **Omidkhah, M.R.**, " Study on the Effect of Magnesium Hydroxide on Decomposition of Polyethylene Using Thermal Analysis", Paper presented at 6th National Congress on Chemical Engineering, Isfahan, may 2001, (in Farsi).
- 35- **Omidkhah, M.R.**; Ghaderi, K., "Modeling and Optimization of Oil Quench Tower of Olefin Plant of Arak Petrochemical Complex", Paper presented at 6th National Congress on Chemical Engineering, Isfahan, may 2001, (in Farsi).
- 36- **Omidkhah, M.R.**; Kashtiban, E.J., "Behaviour of Compressible Flow in an Ejector", Paper presented at the 5th National and Second International Congress on Chemical Engineering, Shiraz, 2000, (in Farsi).
- 37- **Omidkhah, M.R.**; Nourbakhsh, F., " Modeling and Simulation of Catalytic Hydro Treating of C4 Cut", Paper presented at the 5th National and Second International Congress on Chemical Engineering, Shiraz, 2000, (in Farsi).
- 38- Ganjidoust,H., Gholian, R.N, Badkoobi, A., Mahmoodi, M.R., **Omidkhah, M.R.**, "Use of Rotating Biological Contactor (RBC) in the Treatment of Food Industries Wastewater", Paper presented at 6th IAWQ Asia-Pacific Regional Conference, Seoul, Korea, May 1997.
- 39- **Omidkhah, M.R.**; Maghsoudi, S. and Ghaedian, M., "Phase Behavior Study and Thermodynamic Modeling of Oil De-waxing Process", Paper presented at the Second National Congress on Chemical Engineering, Tehran, 1997, (in Farsi).
- 40- **Omidkhah, M.R.**; Khorsand, K. and Zarrinpashneh, S., " Dynamic Simulation of a Multi-component Distillation Column", Paper presented at the Second National Congress on Chemical Engineering, Tehran, 1997, (in Farsi).

- 41- **Omidkhah, M.R.**, "Pinch Technology a Powerful Tool for Better Energy Utilization", Proceedings of 1993 COMSTECH's Workshop on Possible Strategy of Energy Mixes in the Muslim World, held at UAE university, published in Islamabad, Pakistan, 1995.
- 42- **Omidkhah, M.R.**, "World Oil and Gas Resources, Production and Prospects", Paper presented at the First National Congress on Energy Economics, Tehran, Jan., 1995.
- 43- **Omidkhah, M.R.**; Rahimpour, F., "Heat Integration of Hot-end Section of Arak Olefin Plant", Paper presented at the First National Congress on Chemical Engineering, Tehran, Nov., 1994, (in Farsi).
- 44- **Omidkhah, M.R.**; Masoumi, M.E., "Retrofitting Heat Exchanger Network Using Pinch Technology, the Effect of Plant Capacity on Retrofit Design", Paper presented at the First National Congress on Chemical Engineering, Tehran, Nov., 1994, (in Farsi).
- 45- **Omidkhah, M.R.**; Masoumi, M.E., "Modification of Heat Exchanger Networks of Isfahan Refinery Distillation Unit", Paper presented at the First International Oil, Gas and Petrochemicals Congress, Isfahan, Iran, 11-13 Sept., 1993, (in Farsi).

کتابهای منتشر شده :

- 1 سیامک اسماعیل زاده خادم , محمد رضا امیدخواه , غلامحسین لیاقت " مانیتورینگ وضعیت ماشین آلات " ، انتشارات دانشگاه گیلان ، اسفند ۱۳۸۰
- 2 سیامک اسماعیل زاده خادم , محمد رضا امیدخواه , محمود درویزه " تکنولوژی های نگهداری و تعمیرات و آنالیز ارتعاشی ماشین آلات " ، انتشارات دانشگاه گیلان ، اسفند ۱۳۸۰
- 3 سیامک اسماعیل زاده خادم , محمد رضا امیدخواه , محمود درویزه " بالанс فنهای گریز از مرکز و عیب یابی ماشین آلات " ، انتشارات دانشگاه گیلان ، اسفند ۱۳۸۰
- 4 محمد رضا امیدخواه، سید محمد مصلحی میلانی، "روشهای محاسباتی برای شبیه سازی فرایند" ، انتشارات دانشگاه تربیت مدرس، ۱۳۸۵ . (ترجمه)