

# Curriculum Vitae

**Mohammad Reza Talaie**  
**Professor of Chemical Engineering**  
**University of Isfahan**  
**Faculty of Engineering, Chemical Engineering Department**  
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## Area of research interest

Environmental issues, Emission Inventory, Pollutant dispersion, Adsorption

## Education

**BSc** : Chemical Engineering, Shiraz University, Shiraz, Iran (1989)

**Thesis title:** Removal of Formaldehyde from waste water

**MSc** : Chemical Engineering, Shiraz University, Shiraz, Iran (1992)

**Thesis title:** Mathematical modeling of the removal of particulate and gaseous pollutants in Venturi scrubbers

**PhD** : Chemical Engineering, Shiraz University, Shiraz, Iran (2000)

**Dissertation title:** Mathematical modeling of fluid flow and particle movement in electrostatic precipitators

**Visiting Scholar:** Murdoch University, Australia (1999)

**Sabbatical leave:** Waterloo University, Ontario, Canada (2012)

## Employment

Lecturer, Shiraz University (2001-2002)

Assistant Professor, Khalijfars University (2002-2003)

Assistant and Associate Professor, University of Isfahan (2004-2013)

Associate Professor, University of Nottingham (2013-2015)

Professor, University of Isfahan (2015-2017)

Professor, Shiraz University (since 2017)

## Teaching

**Undergraduate:** Process Engineering Fundamentals, Air Pollution Control, Multiphase systems, Fluid Mechanics, Heat Transfer, Process Control, Engineering Mathematics, Numerical Methods, Thermodynamics I, Applied Thermodynamics, Combustion Engineering, Unit Operation I, Unit Operation II.

**Graduate:** Air Pollution Control, Computational Fluid Dynamic, Advanced Fluid Mechanics, Advanced Engineering Mathematics, Advanced Numerical Methods, Multiphase Flow through Pipelines and Wellbores (based on mechanistic modeling).

## Funded projects

1. Development of the emission inventory of Isfahn metropolitan city. (Isfahan Municipality)
2. Developing software to predict asphaltene precipitation on wellbore walls. (South oil field company)

3. The development of general software for dynamic simulation of gas distribution networks. (Khoozestan natural gas company)
4. Investigating the reasons and remedies for nonuniform distribution of gas odorant through natural gas distribution network of Ahvaz city. (Khoozestan natural gas company)
5. The experimental study and mathematical modeling of equilibrium and kinetic of water vapor adsorption in industrial zeolites. (Petropars Company)
6. Dynamic modeling and parametric study of gas dehydration using adsorption on molecular sieves (Isfahan Refinery)
7. The modification of two-phase flow models to apply in software simulating gas condensate flow through pipelines from Nar-Kangan oil-gas field to the Valiasr refinery. (Central oil field company)
8. The development of Eulerian approach to predict the properties of dispersed phase in particle-laden two-phase flow. (Khalijfars Univesity)

### **MSc theses and PhD dissertation supervised**

1. Ranjbar, A., *Experimental and theoretical investigation of Li/air battery performance*, in progress.
2. Montazealghaem, M., *Experimental study of modification of MOF adsorbents to obtain desirable desorption condition and recyclability for adsorption of carbon dioxide-nitrogen mixture*, in progress.
3. Gholami, M., *Experimental and theoretical investigation of CO<sub>2</sub> adsorption on functionalized MCM41*, PhD dissertation, 2013.
4. Nikmand, Z., *Molecular simulation of CO<sub>2</sub> adsorption on functionalized carbon nanotubes*, PhD dissertation, 2013.
5. Ghafoori, M.J., *The investigation of mass transfer mechanisms in the process of asphaltene precipitation on wellbore walls*, PhD dissertation, in progress.
6. Zahedi, S., *Experimental investigation of pore expansion in functionalized MCM41 and its effect on CO<sub>2</sub> adsorption equilibrium*, 2013.
7. Fereshtegan, A., *The synthesis and examination of a functionalized nanotube with sulfonic acid groups using palladium for capturing water vapor from natural gas*, MSc thesis, 2013.
8. Mohammadi, A., *The experimental and theoretical investigation of the effect of electrical high-voltage wave on particle removal efficiency of cylindrical electrostatic precipitators*, MSc thesis, 2012.
9. Banafi, A., *The Comparison of friction factor relations and their modification for predicting pressure drop and liquid holdup through gas-condensate pipelines*, MSc Thesis, 2012.
10. Heshmatnejad, R., *The synthesis and examination of a new functionalized nanotube for capturing water vapor from natural gas*, MSc thesis, 2011.
11. Haghani, Z., *Modification of activity models to predict multi-component gas adsorption using real solution adsorption theory*, MSc thesis, 2011.
12. Shiri, M., *The experimental and theoretical investigation of the effect of evaporation on droplet size and dispersion in Venturi scrubbers*, MSc thesis, 2011.
13. Mashayekhpour, M., *The investigation of the different numerical methods to speed up the computations of gas adsorption in a packed bed*, MSc thesis, 2010.
14. Mehrara, F., *Mathematical modeling of bio-filtration process for hydrogen sulfide removal from a gas stream*, MSc thesis, 2010.

15. Babakhani, D., *Mathematical modeling and simulation of air-humidification by TEG packed bed tower*, MSc thesis, 2009.
16. Rahimi, A., *Development of a new two-dimensional equation of state for prediction of multi-component gas adsorption equilibrium*, MSc thesis, 2009.
17. Ahmadvand, F., *Mathematical modeling of droplet dispersion in Venturi scrubbers*, MSc thesis, 2009.
18. Karimikhosroabadi, M., *Mathematical modeling of gaseous pollutant removal performance in a Venturi scrubber*, MSc thesis, 2009.
19. Nabavizadeh, H., *Mathematical modeling of cylindrical electrostatic precipitators performance*, MSc thesis, 2009.
20. Gholami, M., *Dynamic modeling and parametric study of gas dehydration using adsorption on molecular sieves* MSc thesis, 2008.
21. Kazemzadeh, Z., *Mathematical modeling of gas-condensate flow through pipelines under unsteady-state conditions*, MSc thesis, 2008.
22. Talaie-khozani, A., *Investigating the biodegradation of crude oil floating on wastewater using isolated microorganisms*, MSc Thesis, 2008.

## Publications

A Talaiekhosani, O Ghaffarpasand, MR Talaei, N Neshat, B Eydivandi, 2017. Evaluation of Emission Inventory of Air Pollutants from Railroad and Air Transportation in Isfahan Metropolitan in 2016, *Journal of Air Pollution and Health* 2 (1)

A Talaiekhosani, Z Eskandari, M Yosefi, AA Dehkordi, MR Talaei, 2017. PREPARING THE EMISSION INVENTORY OF AIR POLLUTANTS FROM ISFAHAN'S WASTE IN 2016, *Journal of Air Pollution and Health* 2 (1)

SF Hosseini, MR Talaie, S Aghamiri, MH Khademi, M Gholami, ... 2017. Mathematical modeling of rapid temperature swing adsorption; the role of influencing parameters, *Separation and Purification Technology* 183, 181-193

A Talaiekhosani, MR Talaei, S Rezanian, 2017. An overview on production and application of ferrate (VI) for chemical oxidation, coagulation and disinfection of water and wastewater, *Journal of environmental chemical engineering* 5 (2), 1828-1842

M Montazerolghaem, SF Aghamiri, MR Talaie, S Tangestaninejad, 2017. A comparative investigation of CO<sub>2</sub> adsorption on powder and pellet forms of MIL-101 *Journal of the Taiwan Institute of Chemical Engineers* 72, 45-52

M Montazerolghaem, SF Aghamiri, MR Talaie, S Tangestaninejad, 2017. A comparative investigation of CO<sub>2</sub> adsorption on powder and pellet forms of MIL-101, *Journal of the Taiwan Institute of Chemical Engineers* 72, 45-52

A Talaiekhosani, M Salari, MR Talaei, M Bagheri, Z Eskandari, Formaldehyde removal from wastewater and air by using UV, ferrate (VI) and UV/ferrate (VI), *Journal of environmental management* 184, 204-209

A Talaiekhosani, Z Eskandari, M Bagheri, MR Talaie, M Salari, 2016. Hydrogen sulfide and organic compounds removal in municipal wastewater using ferrate (VI) and ultraviolet radiation, *Environmental Health Engineering and Management Journal*

Z Ali Mohammadi, S Foad Aghamiri, A Zarrabi, M Reza Talaie, 2016. Liposomal doxorubicin delivery systems: effects of formulation and processing parameters on drug loading and release behavior, *Current drug delivery* 13 (7), 1065-1070

A Talaiekhosani, MR Talaie, M Yazdan, SM Mir, 2016. Investigation of formaldehyde removal from synthetic contaminated air by using human hair, *Environmental Health Engineering and Management Journal*

A Talaiekhosani, MR Talaie, MA Fulazzaky, HN Bakhsh, 2016. Evaluation of contaminated air velocity on the formaldehyde removal efficiency by using a biotrickling filter reactor, *Journal of Air Pollution and Health* 1 (3), 171-180

E Molyanyan, S Aghamiri, MR Talaie, N Iraj, 2016. Experimental study of pure and mixtures of CO<sub>2</sub> and CH<sub>4</sub> adsorption on modified carbon nanotubes, *International journal of environmental science and technology* 13 (8), 2001-2010

A Talaiekhosani, MR Talaie, MA Fulazzaky, 2016. Evaluation of formaldehyde removal from contaminated air by using a biotrickling filter reactor in a continuous condition *Journal of Air Pollution and Health* 1 (2), 69-76

A Talaiekhosani, M Bagheri, A Goli, MRT Khoozani, 2016. An overview of principles of odor production, emission, and control methods in wastewater collection and treatment systems, *Journal of environmental management* 170, 186-206

A Goli, AR Talaiekhosani, MR Talaie, 2016. Identification of predominant microorganisms of biotrickling filters to treat polluted air with formaldehyde and ethanol, *Tolooebehdasht* 14 (6), 163-170

M Gholami, MR Talaie, SF Aghamiri, 2016. The development of a new LDF mass transfer correlation for adsorption in fixed beds, *Adsorption* 22 (2), 195-203

M Gholami, MR Talaie, SF Aghamiri, 2016. CO<sub>2</sub> adsorption on amine functionalized MCM-41: Effect of bi-modal porous structure, *Journal of the Taiwan Institute of Chemical Engineers* 59, 205-209

A Talaiekhosani, M Bagheri, MR Talaie, N Jaafarzadeh, An overview on production and applications of ferrate (VI), *Jundishapur Journal of Health Sciences* 8 (3)

A Talaiekhosani, Z Eskandari, M Bagheri, MR Talaie, 2016. Removal of H<sub>2</sub>S and COD by using UV, Ferrate and UV/Ferrate from municipal

wastewater, *Journal of Human, Environment and Health Promotion* 2 (1), 1-8

A Asadi, SF Aghamiri, MR Talaie, 2016. Molecular dynamics simulation of a  $\text{Li}_x\text{Mn}_2\text{O}_4$  spinel cathode material in Li-ion batteries, *RSC Advances* 6 (116), 115354-115363

N Saadatkhan, GS Patience, DC Boffito, MG Rigamonti, SF Aghamiri, ... Catalyst preparation for fluidized bed reactors by spray drying

M Montazerolghaem, SF Aghamiri, S Tangestaninejad, MR Talaie, 2016. A metal-organic framework MIL-101 doped with metal nanoparticles (Ni & Cu) and its effect on  $\text{CO}_2$  adsorption properties, *RSC Advances* 6 (1), 632-640

A Talaiekhazani, N Jafarzadeh, MA Fulazzaky, MR Talaie, M Beheshti, 2015. Kinetics of substrate utilization and bacterial growth of crude oil degraded by *Pseudomonas aeruginosa*, *Journal of Environmental Health Science and Engineering* 13 (1), 64

ZA Mohammadi, SF Aghamiri, A Zarrabi, MR Talaie, 2015. A comparative study on non-covalent functionalization of carbon nanotubes by chitosan and its derivatives for delivery of doxorubicin, *Chemical Physics Letters* 642, 22-28

A Banafi, MR Talaie, 2015. A new mechanistic model to predict gas-liquid interface shape of gas-liquid flow through pipes with low liquid loading, *AIChE Journal* 61 (3), 1043-1053

MR Talaie, KS Deilamani, 2014. A new approach for modeling of gas-condensate flow through pipelines under industrial operating conditions, *Journal of Natural Gas Science and Engineering* 21, 540-555

A Banafi, MR Talaie, MJ Ghafoori, 2014. A comprehensive comparison of the performance of several popular models to predict pressure drop in stratified gas-liquid flow with low liquid loading, *Journal of Natural Gas Science and Engineering* 21, 433-441

A Talaiekhazani, S Jorfi, MA Fulazzaky, M Ponraj, MZ Abd Majid, ... , 2014. Lab-scale optimization of propylene glycol removal from synthetic wastewater using activated sludge reactor, *Desalination and Water Treatment* 52 (19-21), 3585-3593

Z Nickmand, SF Aghamiri, MR Talaie Khozanie, H Sabzyan, 2014. A Monte Carlo simulation of the adsorption of  $\text{CO}_2$  and  $\text{SO}_2$  gases in pure and functionalized single walled carbon nanotubes, *Separation Science and Technology* 49 (4), 499-505

M Gholami, MR Talaie, SF Aghamiri, 2014. Direct synthesis of bi-modal porous structure MCM-41 and its application in  $\text{CO}_2$  capturing through amine-grafting, *Korean Journal of Chemical Engineering* 31 (2), 322-326

M Mashayekhpour, MR Talaie, 2014. Mathematical Modeling of Gas Adsorption Processes in Packed Bed: The Role of Numerical Methods on Computation Time, GAS PROCESSING 2 (2), 23-38

Z Nickmand, DD Do, D Nicholson, SF Aghamiri, MRT Khozanie, ... , 2013. GCMC simulation of argon adsorption in wedge shaped mesopores of finite length, Adsorption 19 (6), 1245-1252

M Akhtari, M Haghshenasfard, MR Talaie, 2013. Numerical and experimental investigation of heat transfer of  $\alpha$ -Al<sub>2</sub>O<sub>3</sub>/water nanofluid in double pipe and shell and tube heat exchangers, Numerical Heat Transfer, Part A: Applications 63 (12), 941-958

M Gholami, MR Talaie, SF Aghamiri, 2013. Investigating the Performance of Amine-Grafted Silica-Base Adsorbents in CO<sub>2</sub> Removal from a Natural Gas Stream Using a Diffusion Based Mathematical Model, GAS PROCESSING 1 (2), 22-30

Akhtari, M., M. Haghshenas and M. R. Talaie, (2012), Numerical and experimental investigation of heat transfer of  $\alpha$ -AL<sub>2</sub>O<sub>3</sub>/water nanofluid in the double pipe and shell & tube heat exchangers,” Numerical Heat Transfer Journal, Vol. 63, Issue 12, pp.941-958.

Ghafoori, M. J., S. F. Aghamiri and M. R. Talaie, (2012) “A new empirical K-value equation for reservoir fluids,” Fuel, Vol. 98, pp. 236–242.

Talaie, A., M. Beheshti, M. R. Talaie, (2011), “Evaluating efficiency of co-culture of two isolated Pseudomonas aeruginosa strains for removal of floating crude oil from oilpolluted wastewater” , Journal of Desalination and Water Treatment, Vol. 28, Issue 1-3, pp. 103-107.

Talaie, A., M. Beheshti, M. R. Talaie, (2011), “Screening and batch treatment of wastewater containing floating oil using oil-degrading bacteria”, in press by the Journal of Desalination and Water Treatment, Volume 28, Issue 1-3, pp. 108-114.

Haghshenas Fard, M. , M. R. Talaie and Somaye Nasr, (2011), “Numerical and experimental investigation of heat transfer of ZNO/water nanofluid in the nanofluid in the concentric tube and plate heat exchangers, Published online by Journal of Thermal Science, Thermal Science, Vol. 15, No. 1, pp. 183-194.

Gholami, M. and M. R. Talaie, (2010), "Mathematical modeling of gas dehydration using adsorption process", Chemical Engineering Science, Vol. 65, pp. 5942–5949.

Ahmadvand, F. and M.R. Talaie, (2010), “CFD modeling of droplet dispersion in Venturi scrubbers,” Chemical Engineering Journal, Vol. 160, pp. 423-431.

Gholami, M. and M. R. Talaie, (2010), “Investigation of Simplifying Assumptions in Mathematical Modeling of Natural Gas Dehydration Using Adsorption Process and Introduction of a New Accurate LDF Model,” Ind. Eng. Chem. Res., 49, 838–846.

Haghshenas Fard, M., M. Nasr Esfahany and M.R. Talaie, (2010), "Numerical study of convective heat transfer of nanofluids in a circular tube two-phase model versus single-phase model, *International Communications in Heat and Mass Transfer*, 37, 91-97.

Talaie, M.R., N. Mokhtarian, A. R. Talaei, M. Karimikhosroabadi and F. Sadeghi, (2009), "Experimental and Theoretical Investigation of Droplet Dispersion in Venturi Scrubbers with Axial Liquid Injection," *Chemical Engineering and Technology*, 32(5), 798-804.

Talaie, M. R., J. Fathikalajahi and M. Taheri, (2009), "The effect of particle size distribution of droplets in particle removal efficiency of a venturi scrubber," *Iranian Journal of Science & Technology*, 32(B1), 25-38.

Talaie, M. R., (2006), "Development of an explicit Eulerian method for treating particle-laden turbulent flow in dust collectors," *Iranian Journal of Chemical Engineering*, 3(1) (winter), 13-28.

Talaie, M. R., (2005), "The effect of wall strengtheners on particle removal in double-stage electrostatic precipitators," *Iranian Journal of Chemical Engineering* 2(2), 37-48.

Talaie, M. R., (2005), "Mathematical modeling of wire-duct single-stage electrostatic precipitators, *Journal of Hazardous Materials*, B144, 44-52.

Mohebi, A., M. Taheri, J. Fathi and M. R. Talaie, (2003), "Simulation of an orifice scrubber performance based on an Eulerian/Lagrangian approach," *J. of Hazardous Materials*, a100, 13-25.

Mohebi, A., M. Taheri, J. Fathi and M. R. Talaie, (2002), "Prediction of pressure drop in an orifice scrubber based on a Lagrangian approach," *J. of Air & Waste Management*, 52, pp. 174-185.

Talaie, M. R., J. Fathikalajahi an M. Taheri, (2001), "Mathematical modeling of double-stage electrostatic precipitators based on a new Eulerian approach," *Journal of Aerosol Science & Technology*, 34, pp. 512-519.

Talaie, M. R., M. Taheri and J. Fathikalajahi, (2001), "A new method to evaluate the voltage-current characteristics applicable for a single-stage electrostatic precipitator, " *J. of Electrostatics.*, 53(3), pp. 221-233.

Talaie, M. R., J. Fathikalajahi an M. Taheri, (1997), "Mathematical modeling of SO<sub>2</sub> absorption in a venturi scrubber," *J. of Air & Waste Management*, 47, 642-646.

Fathikalajahi, J., M. Taheri and M. R. Talaie, (1997), "The effect of droplet size distribution on liquid dispersion in a venturi scrubber", *Journal of Aerosol Science*, 28(1), pp. 291-292.

Fathikalajahi, J., M. Taheri and M. R. Talaie, (1996), "Theoretical study of the effect of non-uniform droplets concentration distribution on venturi scrubber," *Particulate Science & Technology*, 14, 153-164.

Fathikalajahi, J., M. Taheri and M. R. Talaie, (1995), "Theoretical study of liquid dispersion in a venturi scrubber," *J. of Air & Waste Management*, 45, 181-185.

Fathikalajahi, J. and M. R. Talaie, (1992), "Simultaneous solution of continuity, momentum, temperature and concentration equations for a special physical situation," *Engineering Systems Design and Analysis ASME*, 47, pp. 45-52.

Soleimani Deilamani, K. and M. R. Talaie, (2011), "The evaluation of the models introduced to calculate pressure drop and liquid holdup in gas-liquid flows with low liquid loading," *Farayandno Journal*, Vol. 5, Issue 28, pp. 67-76.

Mehrara, F., M. R. Talaie, M. A. Asadolahi (2011), "The Mathematical Modeling of Biofilter Performance in Hydrogen Sulfide Removal from Air Streams," *Journal of Health System Research*, Vol. 7, Issue 2, 257-266.

Talaei, A. R., M. Bagheri, S. Ghotbi Nasab, M. R. Talaie, (2011), "Evaluation of formaldehyde wastewater adsorption on human hair," *Journal of Health System Research*, Vol. 6, Issue 4, 725-742.

Mokhtarian, N., A. R. Talaie, N. Jaafarzadeh, M. R. Talaie and M. Beheshti, "Producing Biosurfactants from Purified Microorganisms Obtained from Oil-contaminated Soil," *The Journal of Water & Wastewater*, 2010, Vol. 3, pp. 20-27.

Talaie. M. R., E.Karamolahi, A.R.Talaie, M.Bagheri (2010), "The Experimental Investigation of the Electrochemical Method for Chloride Removal", *Iranian J. of Health & Environment*, 2010, Vol. 2, NO. 4, pp. 232-239.

Talaie. M. R., S.Ghotbinasab, A.R.Talaie, M.Bagheri, (2010), "The Experimental Study of Formaldehyde Adsorption Process by Human Hair", *Iranian J. Health & Environment*, Accepted to be published.

N.Jafaarzadeh, A.R.Talaie, M.R.Talaie, S.Jorfi, (2010), "The Evaluation of electrochemical treatment for degrading propylene glycol in wastewater", *Iranian Journal of Health and Environment*, Vol. 2, No 4, pp. 232-239.

Talaie A. R., N. Jafaarzadeh, M. R. Talaie and M. Beheshti, (2010), "The Determination of bio-kinetic coefficients of crude oil biodegradation process using pseudomonas aeruginosa bacteria", *Iranian J. Health & Environment*, (2010), Vol. 3, No. 2.

Talaie A. R., N. Jafaarzadeh, M. R. Talaie and M. Beheshti, (2010) "The Application of pseudomonas aeruginosa bacterium in biodegrading aromatic compounds of floating crude oil," *Scientific Journal of Zanzan University Medical Sciences*, Vol. 18, No. 70, pp.68-79.



Talaie A. R., N. Jafaarzadeh, M. R. Talaie and M. Beheshti, (2010), "The evaluation of the capability of the microorganisms isolated from the polluted environment for producing biosurfactant materials", The Journal of Water & Wastewater, accepted to be published.

Gholami, M. and M. R. Talaie, (2009), "The evaluation of applied models for gas adsorption equilibrium of natural gas components on Zeolite kind of A and X", farayandno Journal, Vol. 19, pp. 2-19.

Talaie A. R., M. R. Talaie, N. Jafaarzadeh, (2008) "The optimization of the process for biodegradation of diesel fuel floating in wastewater using Taguchi method," Journal of Water & Wastewater, Vol. 20, No 3, pp. 57-68.

Talaie A. R., N. Jafaarzadeh, M. R. Talaie and M. Beheshti, (2008), "The optimization of floating crude biodegradation by experimental design method", Koomesh, The Journal of Semnan University of Medical Sciences. Volume 11, No 1, pp. 41-54.

Rahimi, A., D. Babakhani and M. R. Talaie, (2008), "The review of the experimental studies and mathematical modeling of gas dehydration processes, farayandno Journal, Vol. 16, pp. 53-63.

Fathikaljahi, J. and M. R. Talaie, (1989), "Calculation of temperature distribution for laminar boundary layer over a flat plate by numerical methods," Iranian Oil Association Journal," Vol. 24, pp. 14-22.

### **Conference papers**

Mehrara, F., M. R. Talaie and M. A. Asadolahi, (2010), "The mathematical modeling of biofilter performance in H<sub>2</sub>S removal", 13th national congress of Environmental Health, Medical University of Kerman.

Gholami, M. and M. R. Talaie, (2010), Dynamic modeling of natural gas component uptake on 5A zeolite pellet and investigation of LDF model for this system, 2th conference on Separation Science & Engineering, Kerman, Iran.

Mashayekh-pour, M. and M. R. Talaie, (2010), The comparison of orthogonal collocation and finite difference methods in solving governing equations of natural gas adsorption within a zeolite pellet, 2th conference on Separation Science & Engineering, Kerman, Iran.

Gholami, M. and M. R. Talaie, (2010), Mathematical modeling and parametric study of gas dehydration using silica gel, 2th conference on Separation Science & Engineering, Kerman, Iran.

Rahimi, A. and M.R. Talaie, (2009), The prediction of equilibrium adsorption of natural gas constituents on industrial zeolites using two-dimensional equation of states, 12th National Iranian Chemical Engineering Congress, Tabriz, Iran.

Babakhani, D., A. Rahimi and M. R. Talaie, (2009), The effect of the correlations for mass transfer coefficient on the results of the mathematical models for gas dehydration processes., 12th National Iranian Chemical Engineering Congress, Tabriz, Iran.

Kazemzadeh, Z. and M.R. Talaie, (2009), The comparison of the capabilities of several numerical methods to solve unsteady-state gas pipeline equations, 12th National Iranian Chemical Engineering Congress, Tabriz, Iran.

Talaie, A.R., M. Beheshti, N. Jafaarzadeh and M.R. Talaie, (2009), The evaluation of the efficiency of isolated microorganisms from crude oil for removing floating crude oil, 12th National Iranian Chemical Engineering Congress, Tabriz, Iran.

Talaie, A.R., M.R.Talaie, N. Jafaarzadeh and M. Beheshti,. (2009), "Application of pseudomonas aeruginosa in degradation of floating aromatic compounds on the water", 11th International Congress of Environmental Health, Zahedan Medical University of Science, school of Health.

Talaie A. R., N. Jafaarzadeh, M. Gholami and M. R. Talaie, (2009) "Comparison of variance and maximum time methods for evaluation of aerobic reactor hydraulic regime." 12th Environmental Health seminar, Shahid Beheshti, Medical University, School of Health.

Talaie, A.R. and M.R.Talaie, (2008), "The treatment of waste water contaminated by diesel fuel using microorganisms isolated from soil samples," The 2nd Conference and Exhibition of Environmental Engineering, Tehran University, Tehran, Iran.

Talaie, A.R and M.R.Talaie., (2008), "Biodegradation of floating diesel fuel on water by isolated microorganism from diesel fuel samples," 5th Congress of Iranian Biotechnology, Tehran, Iran.

Talaie, A.R., M.R.Talaie, N. Jafaarzadeh and M. Beheshti,. (2008), "Evaluation of biosurfactant produced by isolated microorganisms," The 2nd Conference and Exhibition of Environmental Engineering, Tehran University, Tehran, Iran.

Talaie, A.R and M.R.Talaie., (2008), "Biodegradation of floating diesel fuel on water by isolated microorganism from diesel fuel samples," 5th Congress of Iranian Biotechnology, Tehran, Iran.

Talaie, A.R., M.R.Talaie, S. Jorfi, and M.M. Mehrabani, (2008), "The treatment of waste water contaminated by diesel fuel using microorganisms isolated from soil samples," The 2nd Conference and Exhibition of Environmental Engineering, Tehran University, Tehran, Iran.

Talaie, A.R., M.R.Talaie, S. Jorfi, and M.M. Mehrabani, (2008), "The determination of kinetic parameters in biodegradation of methanol in a SBR Reactor," 2nd Conference and Exhibition of Environmental Engineering, Tehran University, Tehran, Iran.

Talaie, M.R., N.Mokhtarian and A.R. Talaie, (2008), "The optimization of crude oil biodegradation by isolated microorganisms with using experimental design method,"

Chemical Engineering Congress, Islamic Azad University, Shahreza Branch, Shahreza, Iran .

Talaie, M.R., (2006), "Examination of two-phase pressure drop models for pipeline flow in unsteady-state conditions," 11th National Iranian Chemical Engineering Congress, Tarbiat Moddaress University.

Talaie, M.R. (2006), "Mathematical modeling of gas-condensate flow through pipelines," 11th Iranian natural gas Chemical Engineering Congress, Shiraz University.  
20. Talaie, M.R. and M. Nasiri, (2004), "The effect of C7+ characterization on prediction of the pressure drop through wet gas pipelines," 9th National Iranian Chemical Engineering Congress.

Nasiri, M. and M.R. Talaie, (2004), "Modification of Prevezdziecki-Sridhar correlation for pure liquid viscosity prediction," 9th National Iranian Chemical Engineering Congress.

Fathikalajahi, J. M. Taheri and M. R. Talaie, (1998), "The effect of size distribution of droplets in removal efficiency of a venturi scrubber," European Symposium, Separation of Particles from gases.

Fathikalajahi, J. M. Taheri and M. R. Talaie, (1998), "Calculation of particle size distribution in a venturi scrubber," Third National Iranian Chemical Engineering Congress.

Fathikalajahi, J. M. Taheri and M. R. Talaie, (1997), "The effect of droplet dispersion on venturi scrubber performance," European Symposium, Separation of Particles from gases.