Javad RAHBAR SHAHROUZI

(Associate Professor of Chemical Engineering)

Data of birth: March 1979
Place of birth: Tabriz, Iran
Nationality: Iranian
Marital status: Single
Phone: (+98) 041-33459159
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Address: Faculty of Chem. Eng., Sahand Univ. of Tech.,
Sahand, Tabriz, Iran, P.O. Box: 51335-1996

EDUCATION

PhD *University of Pierre et Marie Curie (Paris-6) / Institut Français du Pétrole Energies Nouvelles (IFPEN-Lyon)*, Process Engineering 2010
Dissertation: "Simulation and kinetic reduction of complex reactions systems using stochastic approach: application to oligomerization"

MSc *Sharif University of Technology (Tehran)*, Chemical Engineering 2004
Thesis: "Phase equilibria study of athermal polymer-solvent systems"

BSc *Petroleum University of Technology (Abadan, Iran)*, Chemical Engineering 2001

AWARDS

- TotalEnergies Doctorate Scholarship Program, Class 2006

EMPLOYMENT

Academic Staff 2011— present
Sahand University of Technology, Faculty of Chemical Engineering, Sahand, Iran

Research Assistant 2006— 2010
French Petroleum Institute, Dept. of Process and Reaction Engineering, Lyon, France

Research Engineer 2002—2004
National Petrochemical Research and Technology Co., Process Div., Tehran, Iran

MAIN RESEARCH FIELDS

— **Process Modeling & Simulation**

— **Measurement, Sensor Development**

— **Thermodynamics, Extraction, Adsorption**

PROFESSIONAL AFFILIATIONS

— **The Director of Graduate Studies** Jul. 2022 – July 2024 (2yrs)

— **Vice-Dean of the Chemical Engineering Faculty** Aug. 2014 – Nov. 2019 (5y4m)

— **Manager of the Graduate Studies Office** May 2013 – Aug. 2014 (1y4m)

— **Responsible for Relationship with Industry** Dec. 2011 – May 2013 (1y6m)

RESEARCH EXPERIENCE

Granted Research Projects

— "Investigation of measurement techniques to provide a proper method for purge gas flow rate", granted by Iranian National Gas Company- Azarbaijan-Sharghi Province, Mar. 2017–Mar. 2018

— "Design, fabrication and evaluation of a thermal gas mass flow meter", granted by Sahand University of Tech., Sep. 2015–Sep 2017

— "Separation of glatiramer acetate using carbohydrates based aqueous two-phase system", granted by Iran National Science Foundation, Dec. 2023

— "Investigation and design of the road map for the using of ionic liquid in sweetening of natural gas" granted by Iran Research Institute of Petroleum Industry, Sep. 2020–May 2022.

Doctoral Thesis Supervised

1. Hessamodin Nourbakhsh, "Experimental and Simulation Investigation of Hydrocarbons Partial Oxidation in a Porous Reactor for Syngas Production", Feb. 2019
2. Bahareh Afzal Shoushtari, "Separation and purification of glatiramer acetate using carbohydrate-based aqueous two-phase systems", Aug. 2023.
3. Hossein Hosseinzadeh Chaboki, "Design, fabrication, and evaluation of an adjustable multi-range thermal flowmeter", May 2025.
4. Neda Pourjafari, "Pore Network Modeling for a Catalytic Adsorbent Particle", expected Dec. 2024.
5. Mina Shafiei, "Investigating the effect of process parameters on the production of gelatin microcapsules in a microfluidic system", expected Sep. 2025.
6. Soroush Ziaei, Experimental and Molecular Simulation Investigation of Aqueous Two-Phase Systems Based on Deep Eutectic Solvents", expected Sep. 2026.
7. Zahra Shadmand, "Synthesis and Characterization of Bismuth Oxide Nanophotocatalyst Anchored to KBi6O9I and improved with AgBr as Co-Photocatalyst in the form of ternary Heterojunction: Investigation of Combustion Method Type, Fuel Type, Organic Contaminant Degradation and Determination of Participating Active Species", expected June 2026.

Master Thesis Supervised/Co-supervised

1. Parisa Salimi, "Modeling and simulation of isomerization and separation process of pentane isomers in membrane reactor", Sep. 2013
2. Sepideh Sheykh-Rezazadeh, "Modeling and simulation of methanol steam reforming in membrane reactor", Sep. 2013
3. Zahra Sayyar, "Modeling and simulation of the nanostructure TiO_2 layers formation by cold spraying to prepare self-cleaning surfaces and evaluating the obtained results with experimental data", Oct. 2013
4. Roghayeh Tahmasebpour, "Parametric studies on the anodic oxidation process for synthesis of self-ordering TiO_2 nanotubes and modeling the obtained results", Oct. 2013
5. Nader Baniamerian, "Investigation of adsorption of Nickel heavy metal by treated and untreated Oman sea's brown algae in the presence of interfering metals Iron and Arsenic and study on kinetic and equilibrium models", Jan. 2015
6. Hamid Shafie, "Study on phase behavior of hydrocarbons at high pressure using SAFT EOS", Feb. 2015

7. Moslem Mir-Abdollahi, “Estimation of surface tension of hydrocarbons using SAFT EOS”, Nov. 2014
8. Bahareh Afzal-Shoushtari, “Experimental study of the effect of nanoparticle addition on biomolecule partitioning in polymer-salt aqueous two phase system”, Oct. 2015
9. Hossein Hosseinzadeh-Chaboki, “Study on phase behavior of hydrocarbons at high pressure using SAFT EOS”, Jan. 2016
10. Sakineh Molaee, “Removal of amoxicillin from aqueous solution by adsorption onto activated carbon”, Jan. 2016
11. Elham Sharifi, “Optimization of process conditions for prepared alginate microspheres containing antibiotics and evaluation od controlled release”, Feb. 2016
12. Maryam Eskandari, “Optimization of processing parameters in green synthesis of gold nanoparticles using edible mushroom extract and evaluation of their antibacterial activity”, Sep. 2015
13. Mojgan Feyzollahzadeh-Bahrami, “Nitrate removal from water by adsorption onto nanoalumina and activated carbon”, Feb. 2016
14. Mohammad-Mehdi Khakbazan, “Simulation of simulated moving bed adsorption column for separation of para-Xylene from Xylene isomers”, Feb. 2016
15. Majid Talebian, “Improvement of the nanostructure MFI zeolite membrane performance in separation of xylene isomers”, Oct. 2016
16. Hassan Hamdollahi, “Fabrication and evaluation of gas flow-meter performance using the theory of cantilever”, Feb. 2017
17. Babak Foroughi, “Gasoline Adulteration Detection Using Distillation Curve and Neural Network Algorithm”, Feb. 2017
18. Sepideh Hassanzadeh-Borhani, “Fabrication and evaluation of sensitive humidity sensor based on graphene nanoparticles”, Mar. 2017
19. Hossein Khan-Mohammadi, “Molecular Dynamic Simulation of Ion Exchange in Zeolites to Remove of Heavy Meta Cations”, Sep. 2017
20. Saeed Mohammadi-Nasr, “Fabrication and Evaluation of Graphene-Based Humidity Nanosensor”, Oct. 2017
21. Ramin Nemati, “Calculation of Effective Diffusivity Coefficient of Porous Media by Pore Network Modeling”, Feb. 2018
22. Somayyeh Ghaffari, “Purification of Cefazolin by Aqueous Two-phase Extraction Systems (PEG/salt)”, Feb. 2018
23. Amin Zand-Vakili, “Experimental investigation of CO_2-rock-brine interactions in reservoir's temperature and pressure”, Jan. 2018
24. Elham Shabani, “Molecular simulation of H_2S adsorption on Chapazite Zeolite”, Feb. 2017
25. Farshid Towfighi, “Experimental Study of Doxorubicin anticancer drug Extraction by Aqueous Two Phase System (PEG/salt)”, Sep. 2018
26. Amir-Hossein Dideban, “Design and synthesis of an appropriate carbonaneous catalyst for hydrogen production as a clean fuel”, Oct. 2018
27. Fereshteh Moradi, “Experimental study of cephalosporins antibiotic partitioning in carbohydrate-acetonitrile aqueous two phase system”, Feb. 2019
28. Atefeh Ghodrati, “Removal of Anti-cancer Drug Daunorubicin from Water with Carbon Based Nano-adsorbents”, Feb. 2019
29. Zahra Shadmand, “Fabrication of a micro-cantilever based flow sensor for liquid flow measurement”, Jun. 2019

30. Saba Abbasi Sedaghat, "Molecular Simulation of Adsorption and Release of Doxorubicin on Carbon and Aluminum Nanotubes", Sep. 2019
31. Parsa Movahedi, "Investigation of effective factors on Cephalexin partitioning and equilibrium in aqueous two phase systems", Mar. 2021
32. Fatemeh Mohammad-Amini, "Design and fabrication of microfluidic flowmeters to measure low flow rate of liquids", Mar. 2021
33. Mitra Samadi, "Design and fabrication of polymeric microvalve for controlling flow in microchannel", Sep. 2021
34. Fatemeh Yarahmadi, "Investigation of partitioning and mass transfer in carbohydrate-based aqueous two phase system", Oct. 2021
35. Farshad Kazemi Aghdam, "Calculation of Tortuosity of Porous Media by Pore Network Modeling', Dec. 2021
36. Ebrahim Shahed Basmenj, "Comparison of the performance of copper metal organic framework nanocomposite synthesized with different ligands to remove organic pollutant from wastewater", Oct. 2022
37. Sahar Esmaeili, "Determination of liquid viscosity using microfluidic technology", Feb. 2023
38. Mohammad-reza Daei, "Design and fabrication of a micro-distillation apparatus for hydrocarbons separation", Mar. 2023
39. Ali Jalali Qushqayeh, "Separation process of Glatiramer acetate (GA) using aqueous two phase systems (ATPS) based on carbohydrates", Nov. 2023
40. Ziba Valizadeh, "Simulation and fabrication of a microfluidic chip for preparation of drug-loaded microcapsules", Dec. 2023
41. Faezeh Masoud Khosrowshahi, "Removal of cephalosporin antibiotics from water using aqueous two-phase system". Jan. 2024
42. Ali Zeighami Gavgani, "Design and fabrication of a microfluidic device for measuring thermal conductivity of liquids", Feb. 2024
43. Soheila Khoshbakht, "Design and fabrication of in-line viscometer based on piezoresistive microcantilever", Sep. 2024
44. Sina Faraji, "Design and fabrication of magnetic micromixer for mixing fluid flows in a microchannel", Sep. 2024
45. Amirreza Jalali Asbagh, "Investigating the thermodynamic equilibrium of ternary aqueous two-phase systems using molecular dynamics simulation", Sep. 2024

JOURNAL REVIEWER

- Fluid Phase Equilibria
- Measurement
- ACS Nano
- Measurement Science and Technology
- Journal of Physics D: Applied Physics
- Material Research Express
- Journal of Iranian Chemistry Society
- Process Biochemistry
- Journal of Porous Media
- Modeling in Engineering (in Farsi)
- Iranian Journal of Chemistry and Chemical Engineering (English & Farsi Ed.)
- Polyolefin Journal

— IEEE sensor
— Flow Measurement and Instrumentation

TEACHING EXPERIENCE

Course Taught

Course title	program	Credits	No. Semesters
Chem. Eng. Thermodynamics I	BSc	3	6
Chem. Eng. Thermodynamics II	BSc	3	5
Plant Design & Economics	BSc	3	22
Mathematical Methods in Chem. Eng.	BSc	2	7
Heat Transfer	BSc	3	2
Advanced Chem. Eng. Thermodynamics	PhD & MSc	3	13
Modeling and Simulation in Chem. Eng.	PhD & MSc	3	13
Physico-Chemical Sensors: Principals & Application	PhD	3	6

PUBLICATIONS

Journal Publications

— Sina Faraji and Javad Rahbar Shahrouzi, "Comprehensive experimental and numerical investigation of a microrod-based active micromixer driven by the magnetic stirring mechanism", *Journal of the Taiwan Institute of Chemical Engineers*, 173, 106160, 2025.

— Ziba Valizadeh and Javad Rahbar Shahrouzi, "Microencapsulation of cephalexin in alginate microspheres in a microfluidic system: Experimental and simulation study", *Colloids and Surfaces A: Physicochemical and Engineering Aspects*, 717, 136738, 2025.

— Hossein Hosseinzadeh Chaboki, Javad Rahbar Shahrouzi and Naeimeh Jodeiri, "Design and simulation of a multi-range thermal mass flowmeter for liquid flow rate measurement in microchannels", *Engineering Research Express*, 7(1), 2025.

— Mitra Samadi, Javad Rahbar Shahrouzi, Fatemeh Mohammadamini, and Farshid Towfighi, "Design and Fabrication of an Enhanced Thermoresponsive PEG/Carbon Nanotube Microvalve for Efficient Flow Control in Microchannels", *Advanced Materials Technologies*, 10, 2401936, 2025.

— Sahar Esmaeili and Javad Rahbar Shahrouzi, "A microcantilever-based viscometer for inline determination of liquid viscosity", *Engineering Research Express*, 7(1), 2025.

— Mohammadreza Daei, Javad Rahbar Shahrouzi and Ziba Valizadeh, "Miniaturized distillation device for detection of hydrocarbons using distillation curve principle" *Engineering Research Express*, 6(4), 2024.

— Shaaban Ghodbanan, Reza Alizadeh, Sirous Shafiei, Javad Rahbar Shahrouzi, "Improving energy efficiency and heat recovery performance in paper machine drying section" *Journal of Computational and Applied Research in Mechanical Engineering (JCARME),* 14(1), 2024.

— Ali Jalali Qush Qayeh, Javad Rahbar Shahrouzi, Gholamreza Pazuki, "Separation of glatiramer acetate and its monomers utilizing aqueous biphasic systems based on glucose/sucrose and acetonitrile" *Journal of the Taiwan Institute of Chemical Engineers,* 162, 2024.

— N. Rezaei, J. R. Shahrouzi, A. Ebadi, F. Towfighi, and F. Moradi. "Doxorubicin Removal from Water using Acid-treated Activated Carbon, Multi-walled Carbon Nanotubes, and Montmorillonite." *Chemical and Biochemical Engineering Quarterly*, 38, 2024.

— E. Shabani, J. Rahbar Shahrouzi, S. Abbasi Sedaghat, H. Maghsoudi, S. Ziaei, "Molecular Simulation of Adsorption of H_2S, CO_2 and CH_4 Gas Mixtures Onto Si-CHA Zeolite Using the Monte Carlo Method"*, Iran Chemical Engineering Journal*, 23, 2024. (in Farsi)

— Ebrahim Shahed, Mohammad Zabihi, Javad Rahbar Shahrouzi, "Synthesis and design of the modified metal-organic framework adsorbent using boehmite for remarkable adsorption of cationic contaminants in the aqueous solutions" *Chemical Engineering Research and Design*, 203, 2024.

— Morteza Khanmohammadi, Farhad Rahmani, Javad Rahbar Shahrouzi, Rojiar Akbari Sene, "Insightful properties-performance study of Ti-Cu-O heterojunction sonochemically embedded in mesoporous silica matrix for efficient tetracycline adsorption and photodegradation: RSM and ANN-based modeling and optimization." *Chemosphere*, 352, 2024.

— Parsa Movahedi, Ali Jalali Qush Qayeh, Javad Rahbar Shahrouzi, "Investigation of non-equilibrium separation time on the partitioning of cephalexin in an aqueous two-phase system composed of glucose and acetonitrile", *Journal of Non-Equilibrium Thermodynamics,* 48(4), 2023.

— Atefeh Ghodrati, Javad Rahbar Shahrouzi, Ramin Nemati, and Neda Pourjafari. "Adsorptive Removal of Daunorubicin from Water by Graphene Oxide, Activated Carbon, and Multiwalled Carbon Nanotubes: Equilibrium and Kinetic Studies." *Chemical Engineering & Technology,* 45(12), 2022.

— Zahra Sayyar, Javad Rahbar Shahrouzi, and Ali Akbar Babaluo. "Experimental studies and numerical simulation of cold spray technique to investigate the effect of operating parameters on the thickness of Fe/TiO_2 self-cleaning film." *Powder Technology*, 403, 2022.

— Fatemeh Mohammadamini, Javad Rahbar Shahrouzi, and Mitra Samadi, "A suspended polymeric microfluidic sensor for liquid flow rate measurement in microchannels." *Scientific Reports*, 12 (1), 2022.

— Bahareh Afzal Shoushtaria, Javad Rahbar Shahrouzi, Gholamreza Pazuki, ShahlaShahriari, Naghmeh Hadidi, "Separation of glatiramer acetate and its constituent amino acids using aqueous two-phase systems composed of maltodextrin and acetonitrile." *Journal of Industrial and Engineering Chemistry,* 104, 2021.

— Elham Sharifi, Javad Rahbar Shahrouzi, Hoda Jafarizadeh-Malmiri, Somayyeh Ghaffari, Ali Baradar Khoshfetrat, "Optimization of microencapsulation of metronidazole in alginate microbeads for purpose of controlled release." *Polymer Bulletin,* 79(10), 2022.

— Z. Sayyar, J. Rahbar Shahrouzi, A. A. Babaluo, "Investigating the effect of acetic acid on the synthesis yield of TiO_2 nanoparticles by sol-gel method and evaluation of their photocatalytic property in preparing self-cleaning surfaces." *(Farsi Ed.), Nanomeghyas,* 8(3), 2021
بررسی اثر استیک اسید روی راندمان سنتز نانوذرات TiO_2 به روش سل-ژل و ارزیابی خاصیت فتوکاتالیستی آن در تهیه سطوح خودتمیزشونده

— Babak Foroughi, Javad Rahbar Shahrouzi, Ramin Nemati, "Detection of Gasoline Adulteration Using Modified Distillation Curves and Artificial Neural Network." *Chemical Engineering & Technology,* 44(3), 2021

— Morteza Khanmohammadi, Javad Rahbar Shahrouzi & Farhad Rahmani, "Insights into mesoporous MCM-41-supported titania decorated with CuO nanoparticles for enhanced

photodegradation of tetracycline antibiotic." *Environmental Science and Pollution Research, 28(3), 2021*

— Zahra Shadmand, Javad Rahbar Shahrouzi, Hossein Hosseinzadeh Chaboki, "Design and fabrication of a graphene-based microcantilever flow sensor for liquid flow measurement." *Sensors and Actuators A: Physical,* 317, 2021

— Amin Zandvakili, Javad Rahbar Shahrouzi, Seyyed Alireza Tabatabaei-Nejad & Elnaz Khodapanah, "Experimental investigation of CO_2–rock–brine interaction for injection of CO_2 in an Iranian oil reservoir as an EOR method." *Environmental Earth Sciences,*79(480), 2020

— Morteza Khanmohammadi, Farhad Rahmani, Javad Rahbar Shahrouzi, "Immobilization of TiO_2 Nanoparticles over Mesoporous MCM-41 Adsorbent toward Treatment of Tetracycline Antibiotic-Contaminated Water." *Iranian Journal of Chemistry and Chemical Engineering (Farsi Ed.), Accepted 28 July 2020.*

تثبیت نانوذرات کاتالیزوری نوری TiO_2 بر روی جاذب متخلخل مزوحفره MCM-41 به منظور پالایش آب آلوده به آنتی‌بیوتیک تتراسایکلین

— Hessamodin Nourbakhsh, Javad Rahbar Shahrouzi, Hadi Ebrahimi, Akbar Zamaniyan, "Experimental study of ultra-rich thermal partial oxidation of methane using a reticulated porous structure." *International Journal of Hydrogen Energy*, 45 (22), 2020

— Ramin Nemati, Javad Rahbar Shahrouzi, Reza Alizadeh, "A stochastic approach for predicting tortuosity in porous media via pore network modeling." *Computers and Geotechnics*, 120, 2020

— Fereshteh Moradi, Javad Rahbar Shahrouzi, "Phase equilibrium and partitioning of cephalosporins (cephalexin, cefazolin, cefixime) in aqueous two-phase systems based on carbohydrate (glucose, fructose, sucrose, maltose) / acetonitrile." *Fluid Phase Equilibria*, 507, 2020

— Bahareh Afzal Shoushtari, Gholamreza Pazuki, Javad Rahbar Shahrouzi, Shahla Shahriari, Naghmeh Hadidi, "Separation of erythromycin using aqueous two-phase system based on acetonitrile and carbohydrates." *Fluid Phase Equilibria*, 505, 2020.

— Javad Rahbar Shahrouzi; Sakineh Molaee; Amanollah Ebadi; Farshid Towfighi; Farshad Bakhti, "Investigation of effective parameters on adsorption of amoxicillin from aqueous medium onto activated carbon." *Advances in Environmental Technology*, 5(2), 2019

— Hessamodin Nourbakhsh, Javad Rahbar Shahrouzi, Hadi Ebrahimi, Akbar Zamaniyan, Mohammad Reza Jafari Nasr, "Experimental and numerical study of syngas production during premixed and ultra-rich partial oxidation of methane in a porous reactor." *International Journal of Hydrogen Energy*, 44(60), 2019.

— Farshid Towfighi, Javad Rahbar Shahrouzi, Somayyeh Ghaffari, Seyyed Alireza Tabatabaei-Nejad, "The effect of graphene oxide and functionalized carbon nanotubes as additives on extraction of doxorubicin by polyethylene glycol 6000 / sodium salts aqueous two-phase systems." *Fluid Phase Equilibria*, 500, 2019.

— Hossein Khanmohammadi, Behrouz Bayati, Javad Rahbar- Shahrouzi, Ali-Akbar Babaluo, Asma Ghorbani, "Molecular simulation of the ion exchange behavior of Cu^{2+}, Cd^{2+} and Pb^{2+} ions on different zeolites exchanged with sodium." *Journal of Environmental Chemical Engineering*, 7(3), 2019.

— Somayyeh Ghaffari, Javad Rahbar Shahrouzi, Farshid Towfighi, Ali Baradar Khoshfetrat, "Partitioning of cefazolin in aqueous two-phase systems containing poly (ethylene glycol) and sodium salts (citrate, tartrate, and sulphate)." *Fluid Phase Equilibria*, 488, 2019.

— Ramin Nemati, Javad Rahbar Shahrouzi, “Site selection by Monte Carlo method and integration with brute-force search and genetic algorithm by using image processing approach (Case study: Fuel station in Tabriz city).” *Modeling in Engineering*, 17(57), 2019. (in Farsi)

مکانیابی با روش مونت کارلو و تلفیق آن با الگوریتمهای جستوجوی خام و ژنتیک با رویکرد پردازش تصویر (مطالعه موردی: جایگاه سوخت در شهر تبریز)

— Amirhossein Didehban, Mohammad Zabihi, and Javad Rahbar Shahrouzi, “Experimental studies on the catalytic behavior of alloy and core-shell supported Co-Ni bimetallic nano-catalysts for hydrogen generation by hydrolysis of sodium borohydride.” International Journal *of Hydrogen Energy*, 43(45), 2018.

— Hessamodin Nourbakhsh, Javad Rahbar Shahrouzi, Akbar Zamaniyan, Hadi Ebrahimi, Mohammad Reza Jafari Nasr, “A thermodynamic analysis of biogas partial oxidation to synthesis gas with emphasis on soot formation.”, *International Journal of Hydrogen Energy*, 43(33), 2018.

— Hossein Hosseinzadeh Chaboki, Javad Rahbar-Shahrouzi, Ali Hassanpour, “Experimental and Simulation Studies of the Effect of Restrictor and Distributor on the Performance of Thermal Mass Flow Meter”, *Measurement*, 119, 2018

— Hassan Hamdollahi, Javad Rahbar-Shahrouzi, “Fabrication and evaluation of a graphene oxide-based cantilever-type flow-meter for subsonic gas flow rate measurement”, *Measurement Science and Technology*, 29(5), 2018.

— Maryam Eskandari-Nojehdehi, Hoda Jafarizadeh-Malmiri, Javad Rahbar-Shahrouzi, “Hydrothermal green synthesis of gold nanoparticles using mushroom (Agaricus bisporus) extract: physico-chemical characteristics and antifungal activity studies”, Green Processing and Synthesis, 7(1), pp 38-47, 2018.

— Roghiyeh Tahmasebpoor, Ali Akbar Babaluo, Javad Rahbar Shahrouzi, Maryam Tahmasebpoor, Mahdi Shahrezaei, “Theoretical and experimental studies on the anodic oxidation process for synthesis of self-ordering TiO_2 nanotubes: Effect of TiO_2 nanotube lengths on photocatalytic activity”, Journal of Environmental Chemical Engineering, 5(1), 2017.

— Javad Rahbar Shahrouzi, Farshad Bakhti, Sepideh Sheykh Rezazadeh, Ali-Akbar Babaluo, “Modeling and simulation of methanol reforming in palladium based membrane reactor on $Cu/ZnO/Al_2O_3$ catalyst for hydrogen production”, Journal of Separation Science and Engineering, 8(2) pp. 67-74, 2017. (in Farsi)

مدلسازی و شبیه‌سازی راکتور غشایی پالادیومی جهت ریفورمینگ متانول روی کاتالیست $Cu/ZnO/Al_2O_3$ برای تولید و جداسازی هیدروژن

— Maryam Eskandari-Nojehdehi, Hoda Jafarizadeh-Malmiri, Javad Rahbar-Shahrouzi, “Optimization of processing parameters in green synthesis of gold nanoparticles using microwave and edible mushroom (Agaricus bisporus) extract and evaluation of their antibacterial activity”, *Nanotechnology Reviews*, 5(6), pp 537-548, 2016

— Bahareh Afzal Shoushtari, Javad Rahbar Shahrouzi, and Gholamreza Pazuki, “Effect of Nanoparticle Additives on Partitioning of Cephalexin in Aqueous Two-Phase Systems Containing Poly(ethylene glycol) and Organic Salts”, *J. Chem. Eng. Data*, 61 (7), pp 2605–2613, 2016.

— Zahra Sayyar, Ali Akbar Babaluo, Javad Rahbar Shahrouzi, “Kinetic study of formic acid degradation by Fe^{3+} doped TiO_2 self-cleaning nanostructure surfaces prepared by cold spray”, Applied Surface Science, 335, pp 1–10, 2015

— J. Shahrouzi, D. Guillaume, P. Rouchon, “Stochastic simulation and single events kinetic

modelling: application to olefin oligomerization", *Ind. Eng. Chem. Res.*, 47(13), pp 4308–4316, 2008

Selected Conference Papers

— Ramin Nemati, Javad Rahbar Shahrouzi, "Trends of Scientific Articles Published by Iranian Chemical Engineering Researchers: Bibliometric Analysis," The 11th International Chemical Engineering Congress & Exhibition (IChEC 2020), Talesh, Iran, Oct. 2020

— Zahra Shadmand, Parsa Movahedi, Javad Rahbar Shahrouzi, "The effect of graphene oxide nanoparticle as an additive on the equilibrium curve of aqueous two-phase systems containing polyethylene glycol 6000 and sodium tartrate," The 11th International Chemical Engineering Congress & Exhibition (IChEC 2020), Talesh, Iran, Oct. 2020

— H. Nourbakhsh, J. R. Shahrouzi, A. Zamaniyan, H. Ebrahimi, M. R. Jafari Nasr, "Rich Thermal Partial Oxidation of Methane to Synthesis Gas: Thermodynamic Analysis", The 10th International Chemical Engineering Congress & Exhibition (IChEC 2018), Isfahan, Iran, May 2018

— Saeed Mohammadi Nasr, Javad Rahbar Shahrouzi, Akram Tavakoli, Amir Mohammad Jabbari, "Humidity Sensing Properties of Graphene Oxide and PEGylated Film Nanosensor", The 10th International Chemical Engineering Congress & Exhibition (IChEC 2018), Isfahan, Iran, May 2018

— B. Afzal Shoushtari, J. R. Shahrouzi, G. R. Pazuki, "liquid-liquid Equilibria of aqeous two phase systems containing polyethylene (PEG) and sodium succinate", The 9th International Chemical Engineering Congress & Exhibition (IChEC 2015), Shiraz, Iran, Dec. 2015

— E. Sharifi, J. Rahbar Shahrouzi, H. Jafarizadeh, "swelling and release behaviour of alginate/HPMC hydrogel microbeads", The 9th International Chemical Engineering Congress & Exhibition (IChEC 2015), Shiraz, Iran, Dec. 2015

— Maryam Eskandari Nojedehi, Javad Rahbar-Shahrouzi, Hoda Jafarizadeh-Malmiri, "Evaluation of the Potential Green Synthesis of Goild nanoparticles Using Two Different Edible Mushroom Extracts", 5th International Conference on UltraFine Grained and NanoStrucured Materials, University of Tehran, Tehran, Iran, 2015

— Parisa Salimi, Javad Rahbar Shahrouzi, Ali Akbar Babaluo, "Membrane reactor performance compared to conventional plug flow reactor for n-butane isomerization reaction", The 8th International Chemical Engineering Congress & Exhibition (IChEC 2014), Kish, Iran, Feb. 2014

— Sepideh Sh. Rezazade, Javad R. Shahrouzi, Ali akbar Babaluo, Kamran Ghasemzadeh, "Modeling and Simulation of Methanol Steam Reforming in Pd Membrane Reactor", The 8th International Chemical Engineering Congress & Exhibition (IChEC 2014), Kish, Iran, Feb. 2014

— Z. Sayyar, M. Valizadeh Derakhshan, A. A. Babaluo, J. Rahbar Shahrouzi, "Preparation of self-cleaning TiO2 surfaces on Aluminum based composites", The 8th International Chemical Engineering Congress & Exhibition (IChEC 2014), Kish, Iran, Feb. 2014

— J. Shahrouzi, D. Guillaume, "Application of stochastic methods for modeling of the large reaction network of oligomerization", 10th International Chemical and Biological Engineering Conference, Braga, Portugal, Sept. 2008

— J. Shahrouzi, D. Guillaume, "Modeling of large reaction network through stochastic methods: application to oligomerization", 6th European Congress of Chemical Engineering, Copenhagen, Denmark, Sept. 2007

LANGUAGES

Persian: Bilingual
Azeri: Native
Turkish: Fluent
English: Fluent
French: Advanced

COMPUTER SKILLS

Programming: C/C++, MATLAB, Scilab
Applications: MS-Office, Aspen, HYSYS, COMSOL, Material Studio