

Dr. Farshad Rahimpour (Ph.D.)

Professor
Faculty of Petroleum and Chemical Engineering
Razi University, Kermanshah, Iran



Address: Department of Chemical Engineering, Faculty of
Petroleum and Chemical Engineering, Razi University,
Kermanshah 67144-14971, Iran

Tel: +98(83)34343345

Fax: +98(83)34283262

Email: f_rahimpour@razi.ac.ir, f_rahimpour65@yahoo.com

<http://orcid.org/0000-0002-8564-9436>

Homepage: <http://eng.razi.ac.ir/en/~f.rahimpour>

Education:

- **PhD:** Chem. Eng. Dept., Iranian University of Science and Technology (IUST), Tehran, Iran, 2006, Thesis title: “Isolation and purification of biomolecules using aqueous two-phase systems and their thermodynamics modeling” Supervisors: Professor R. Hatti-Kaul (Lund University, Sweden), Dr. F. Feyzi.
- **M.Sc.:** Chem. Eng. Dept., Tarbiat Modarres University (TMU), Tehran, Iran, 1993, Thesis Title: “Integration of hot-end section of Olefin plant of Arak Petrochemical Complex”, Supervisor: Professor M.R. Omidkhan Nasrin.
- **B.Sc.:** Chem. Eng. Dept., Isfahan University of Technology (IUT), Isfahan, Iran, 1990, Project Title: “Design and evaluation of a distillation pilot plant unit ” Supervisor: Dr. M.R. Ehsani.

Academic Experiences:

- Head of Chemical Engineering Department, Faculty of Engineering, Razi University, Kermanshah, Iran, May 2021-Now.
- Associate Professor: Department of Chemical Engineering, Razi University, Kermanshah, Iran, 2021-Now.
- Associate Professor: Department of Chemical Engineering, Razi University, Kermanshah, Iran, 2013-2021.
- Head of Chemical Engineering Department, Faculty of Engineering, Razi University, Kermanshah, Iran, Feb. 2016-Apr. 2018.
- Visiting Professor, Department of Biotechnology, Lund University, Lund, Sweden, Nov. 2014-Dec. 2015 (working on bio-refinery process for organic acids production).
- Visiting Researcher, Department of Biotechnology, Lund University, Lund, Sweden, Jun 2007-Sep 2007.
- Assistant Professor: Department of Chemical Engineering, Razi University, Kermanshah, Iran, 2006-2013.

Dr Farshad Rahimpour

- Assistant Dean, Financial, administration and students; Faculty of Engineering, Razi University, Kermanshah, Iran, 2005-2014.
- Visiting Scholar, Department of Biotechnology, Lund University, Lund, Sweden, Nov 2003-May 2005.
- Succeeded in PhD qualified exam with first rank (2003), Iranian University of Science and Technology, Tehran, Iran.
- Lecturer: Chemical Engineering Department, Iran University of Science and Technology, Tehran, Iran, 2001-2003.
- Lecturer: Department of Chemical Engineering, Razi University, Kermanshah, Iran, 1993-2001.

Awards:

- Distinguished PhD student with the first rank, Iranian University of Science and Technology, Tehran, Iran.
- Distinguished Researcher for Year 2007 in Razi University.
- Distinguished Researcher for Year 2014 in Razi University.

Technical Areas of Interest:

- Biorefinery process for organic acids and biofuels production
- Process Integration
- Integrated Bioprocessing for Recovery of Biomolecules from Biotechnological Processes
- Biofuel
- Bioseparation
- Refolding of Proteins and Enzymes
- Bioremediation
- Immobilized Biocatalyst Technology for Bioconversions
- Thermodynamics Modeling of Bioseparation
- Experimental Design and Statistical Analysis
- Optimization of Chemical and Biochemical Process

Research experiences:

- Biorefinery
- Biopolymer production and optimization
- Heat Integration
- Purification of plasmid DNA from cultural Broth
- Refolding of denatured proteins
- Purification of proteins and enzymes
- Thermodynamic modeling of protein partitioning in ATPS
- Bioremediation of oil
- Removal of heavy metals using modified nanoparticles
- Modeling of falling film evaporators.

Publications and presentations:

- ***Journal papers:***

1. Saki Nourozi, Gh., **Rahimpour, F.**, “Investigating and optimizing insulin partitioning with conjugated Au nanoparticles in aqueous two-phase systems using response surface methodology”, *ACS Omega*, 9 (2024) 9676–9685, DOI: 10.1021/acsomega.3c09664.
2. Hojatzadeh, S., **Rahimpour, F.**, Sharifzadeh, E., “Isothermal crystallization kinetics of pure and surface-modified silica/high-density polyethylene nanocomposites”, *Polymer Composites*, (2024) DOI: 10.1002/pc.28024.
3. Hashem Soltan, E., **Rahimpour, F.**, “Synthesis of ethyl glyceryl ethers from catalyzed glycerol acid and ethanol to develop bio-additives to improve fuel characteristics”, 77, (2023) 6669–6678. DOI: 10.1007/s11696-023-02967-1.
4. Hojatzadeh, S., Sharifzadeh, E., **Rahimpour, F.**, “An EBM based multi-stage mechanical model to predict the time-dependent creep behavior of semi-crystalline polymer nanocomposites”, *Mechanics of Materials*, 184, (2023) 104737. DOI: 10.1016/j.mechmat.2023.104737.
5. Hojatzadeh, S., **Rahimpour, F.**, Sharifzadeh, E., “Effect of silica nanoparticles on the crystallinity of HDPE-based nanocomposites”, *Besparesh*, DOI: 10.22063/basparesh.2023.3332.1652.
6. Hojatzadeh, S., **Rahimpour, F.**, Sharifzadeh, E., “A study on the synergetic effects of self-induced crystallization and nanoparticles on the mechanical properties of semi-crystalline polymer nanocomposites: experimental and analytical approaches”, *Iranian Polymer Journal*, 32 (2023) 543–555. DOI: 10.1007/s13726-023-01144-1.
7. Sheikhi Kordkheili, M., **Rahimpour, F.**, “Artificial neural network and semi-empirical modeling of industrial-scale Gasoil hydrodesulfurization reactor temperature profile”, *Mathematics and Computers in Simulation*, 206 (1-2) 198–215. DOI: 10.1016/j.matcom.2022.11.012.
8. Rahimi Mir-Azizi, Z., Sharifzadeh, E., **Rahimpour, F.**, “Thermal analysis of ZnO/hollow graphene-oxide/polyester complex and simple-structure nanocomposites: analytical, simulation and experimental approaches”, *Iranian Polymer Journal*, 31 (2022) 717–727. DOI: 10.1007/s13726-022-01032-0.
9. Cavero-Olguin, V.H., **Rahimpour, F.**, Dishisha, T., Alvarez-Aliaga, M.T., Hatti-Kaul, R., “Propionic acid production from glycerol in immobilized cell bioreactor using an acid-tolerant strain of *Propionibacterium acidipropionici* obtained by adaptive evolution”, *Process Biochemistry*, 110 (2021) 223-230. DOI: 10.1016/j.procbio.2021.08.005.
10. Najafi, N., **Rahimpour, F.**, “Investigation the effective parameters on the upgrading of fuel oil by *Pseudomonas aeruginus* and *Rhodococcus erythropolis* microorganisms isolated from oil sludge”, *Journal of Petroleum Research*, 31(118) 2021 (in Persian). DOI: 10.22078/pr.2021.4260.2926.
11. Moradi, A., **Rahimpour, F.**, Salehi, M.A., Shojaeimehr, T.; “Impact of operating conditions for the continuous-flow removal of dye effluents in a fixed-bed reactor using light expanded clay aggregate as a green adsorbent with ultrasound-assisted

- desorption”, *Asia-Pacific Journal of Chemical Engineering*, 15(5) 2020;e2508. <https://doi.org/10.1002/apj.2508>.
12. Fakhari, M.A., **Rahimpour, F.**; “Measurements and thermodynamic Modeling of Liquid-Liquid Equilibrium of PEG 6000-Phosphate Affinity Aqueous Two-Phase Systems at Various Ligand concentrations and pH”, *Physics and Chemistry of Liquids*, 59 (2019) 1-17. DOI: 10.1080/00319104.2019.1611824.
 13. Shojaeimehr, T.; **Rahimpour, F.**, “Retention time modeling of short-chain aliphatic acids in ion-exclusion chromatography systems under several conditions using computational intelligence methods (ANN and ANFIS)”, *Journal of liquid chromatography and related technologies*, 41(2018) 810–817.
 14. Neishabori Salehia, R., Sharifnia, S., **Rahimpour, F.**, “Natural Gas Upgrading by Selective Separation on Zeotype Adsorbents”, *Journal of Natural Gas Science and Engineering*, 54 (2018) 37–46.
 15. Shojaeimehr, T.; **Rahimpour, F.**, Schwarze, M., Repke, J.U., Godini, H.R., Wozny, G; “Use of RSM for the Multivariate, Simultaneous Multiobjective Optimization of the Operating Conditions of Aliphatic Carboxylic Acids Ion-Exclusion Chromatography Column: Quantitative Study of Hydrodynamic, Isotherm, and Thermodynamic Behavior”, *Journal of Chromatography B*, 1083 (2018) 146–159.
 16. Neishabori Salehia, R., **Rahimpour, F.**, Sharifnia, S.: “Adsorption of carbon dioxide, nitrogen and methane on modified titanosilicate type molecular sieves”, *Journal of Natural Gas Science and Engineering*, 46 (2017) 730-737.
 17. Fakhari, M.A., **Rahimpour, F.**, Taran M.; “Response surface methodology optimization of partitioning of xylanase from *Aspergillus Niger* by metal affinity polymer-salt aqueous two-phase systems”, *Journal of Chromatography B*, 1063 (2017) 1-10.
 18. Esmaeili, J., **Rahimpour, F.**; “Regeneration of spent nickel catalyst from hydrogenation process of edible oil: Heat treatment with hydrogen injection”, *International Journal of Hydrogen Energy*, 42 (2017) 24197-24204.
 19. Shojaeimehr, T.; **Rahimpour, F.**; Sadegi, M.; “Biosorption of Pb(II) using *Gundelia tournefortii*: Kinetics, equilibrium, and thermodynamics”, *Separation Science and Technology*, 52 (2017) 596-607.
 20. **Rahimpour, F.**, Mamo, G., Hatti-Kaul, R., “Response surface methodology and artificial neural network modelling of an aqueous two-phase system for purification of a recombinant alkaline active xylanase”, *Process Biochemistry* 51 (2016) 452-462.
 21. Pirdashti, M., Movagharnejad, K., Curteanu, S., Leon, F., **Rahimpour F.**, “Liquid-Liquid Equilibrium Data Prediction using Large Margin Nearest Neighbor”, *Iranian Journal of Chemical Engineering*, 13 (2016) 14-32.
 22. Mirani, M.R., **Rahimpour, F.**, “Thermodynamic modeling of hydrophobic interaction chromatography of biomolecules in the presence of salt”, *Journal of Chromatography A*, 1422 (2015) 170–177.
 23. Ghasemi Maymandi, M., **Rahimpour, F.**, “Optimization of Lipid productivity by *Citrobacter youngae* CECT 5335 and biodiesel preparation using ionic liquid catalyst” *Fuel* 159 (2015) 476–483.
 24. Ghaemi, N., Madaeni, S.S., Daraei, P., Rajabi, H, Shojaeimehr, T., **Rahimpour, F.**, Shirvani, B., “PES mixed matrix nanofiltration membrane embedded with polymer wrapped MWCNT: Fabrication and performance optimization in dye removal by RSM”, *J. Hazard. Mater.* 298 (2015) 111–121.

25. Moradi, H., Sharifnia, S., **Rahimpour, F.**, "Photocatalytic decolorization of reactive yellow 84 from aqueous solution using ZnO nanoparticles supported on mineral LECA", *Mater. Chem. Phys.* 158 (2015) 38-44.
26. Pirdashti, M., Movagharnejad, K., Curteanu, S., Dragoi, E.N., **Rahimpour, F.**, "Prediction of partition coefficients of guanidine hydrochloride in PEG-phosphate systems using neural networks developed with differential evolution algorithm", *J. Ind. Eng. Chem.*, 27 (2015) 268-275.
27. Ghahremai, R., **Rahimpour, F.**, "Equilibrium Phase Behavior of Aqueous Two-Phase Systems Containing Ethylene Oxide- Propylene Oxide of Different Molecular Weight (2500,12000) and Sodium Citrate Salt at Various Temperatures and pH", *J. Chem. Eng Data.*, 59 (2014) 218-224.
28. Shojaeimehr, T., **Rahimpour, F.**, Khadivi, M.A., Sadeghi, M, "modeling study by Response Surface Methodology (RSM) and Artificial Neural Network (ANN) on Cu²⁺ adsorption optimization using Light Expanded Clay Aggregate (LECA)", *J. Ind. Eng. Chem.*, 20 (2014) 870-880.
29. Mahmoodi, G., Sharifnia, S., **Rahimpour, F.**, Hosseini, S.N., "Photocatalytic Conversion of CO₂ and CH₄ Using ZnO Coated Mesh: Effect of Operational Parameters and Optimization", *Solar Energy Materials and Solar Cells*, 111 (2013) 31-40.
30. Shahbazinasab, M.K., **Rahimpour, F.**, "Liquid-Liquid Equilibrium Data for aqueous two phase systems containing PPG725 and salts at various pH", *J. Chem. Eng Data*, 57 (2012) 1867-1874 .
31. Ghaemi, N., Madaeni, S.S., Alizadeh, A., Daraei, P., Zinatizadeh, A.A., **Rahimpour, F.**, "Separation of nitrophenols using cellulose acetate nanofiltration membrane: Influence of surfactant additives", *Sep. & Pur. Technol.*, 85 (2012) 147-156.
32. Madaeni, S.S., Arast, N., **Rahimpour, F.**, Arast Y., "Fabrication optimization of acrylonitrile butadiene styrene (ABS)/polyvinylpyrrolidone (PVP) nanofiltration membrane using responsesurface methodology", *Desalination*, 280 (2011) 305-312.
33. Madaeni, S.S., Tavakolian, H. R., **Rahimpour, F.**, "Cleaning Optimization of Microfiltration Membrane Employed for Milk Sterilization", *Sep. Sci. & Technol.*, 46 (2011) 571-580.
34. Keshavarz Jafarzadeh, N., Sharifnia, S., Hosseini, S.N., **Rahimpour, F.**, "Statistical optimization of process conditions for photocatalytic degradation of phenol with immobilization of nano TiO₂ on perlite granules", *Korean J. Chem. Eng.*, 28(2), (2011) 531-538.
35. **Rahimpour, F.**, Pirdashti, M., "Effective Parameters on the Partition Coefficient of Guanidine Hydrochloride in the Poly (Ethylene Glycol) +Phosphate + Water System at 298.15 K", *Iranian J. Chem. Eng.*, 7(1)(2010) 67-76.
36. Saedi, Sh., Madaeni, S.S., **Rahimpour, F.**, Zeresghi, S., "Optimization of Chemical Cleaning for Removal of Biofouling Layer", *Chemical Product and Process Modeling*, 2009 (4).
37. Pirdashti. M., Mohammadi, M., **Rahimpour, F.**, Kennedy, D.T.; "An Ahp-Delphi multi-criteria location planning model with application to whey protein production facility decisions", *Int. J. Applied Decision Sci.*, 1(2)(2008) 245-259.
38. **Rahimpour, F.**, Pirdashti, M.; "The effect of guanidine hydrochloride on phase diagram of PEG-phosphate aqueous two-phase systems", *Int. J. Chem. & Biomolecular Eng.*, 1(2008) 35-39.
39. **Rahimpour, F.**; Mamo, G.; Feyzi, F.; Maghsoudi, S.; Hatti-Kaul, R.; "Optimizing refolding and recovery of active recombinant Bacillus halodurans xylanase in polymer-

salt aqueous two-phase system using surface response analysis”, *J. Chromatography: A*, 1141(2007) 32-40.

40. **Rahimpour, F.**; Feyzi, F.; Maghsoudi, S.; Hatti-Kaul, R.; “Purification of plasmid DNA with polymer-salt aqueous two-phase system: Optimization using response surface methodology”, *Biotechnology and Bioengineering*, 95(2006) 627-637.

• **Referred conference papers:**

1. Shojaeimehr, T., **Rahimpour, F.**, Sadeghi, M., "Evaluation of *Gundelia tournefortii* as a biosorbent for Pb^{2+} removal from aqueous solution", Proceedings of the 14th Iranian Congress of Chemical Engineering, Tehran, Iran, Oct. 2012.
2. Shojaeimehr, T., **Rahimpour, F.**, Khadivi, M.A., Sadeghi, M., "Application of response surface methodology in removal of *Cu(II)* from aqueous solution onto LECA", Proceedings of the 14th Iranian Congress of Chemical Engineering, Tehran, Iran, Oct. 2012.
3. Ghahremani, M., **Rahimpour, F.**, "Study of liquid-liquid equilibria of salt- polymer aqueous two-phase systems containing smart copolymer of ethylene oxide-propylene oxide and sodium citrate", Proceedings of the 14th Iranian Congress of Chemical Engineering, Tehran, Iran, Oct. 2012.
4. Tajmehar, M., **Rahimpour, F.**, Sharifnia, S., "Direct Photoreduction of Carbon Dioxide with CuO Doped TiO_2 ", International Conference on Chemical, Biological and Medical Sciences (ICCBMS'2012), Kuala Lumpur, Malaysia, Aug. 2012.
5. Shojaeimehr, T., **Rahimpour, F.**, Moradian, R., Astinchap, B., Sadeghi, M., "Optimization of zinc adsorption by polyaniline using experimental design", Proceedings of the 7th International Chemical Engineering Congress & Exhibition, Kish Island, Iran, 2011.
6. Tajmehar, M., **Rahimpour, F.**, Sharifnia, S., "Investigate the effect of CuO doped nano particle titanium on photoreduction of Carbon dioxide", Proceedings of the 7th International Chemical Engineering Congress & Exhibition, Kish Island, Iran, 2011.
7. Ghaemi, N., Madaeni, S.S., Alizadeh, A., Daraei, P., Rahimpour, F., Falsafi, M., Addition of anionic surfactant to cellulose acetate nanofiltration membrane: Preparation, morphology and performance in the removal of pesticides", Proceedings of the 7th International Chemical Engineering Congress & Exhibition, Kish Island, Iran, 2011.
8. Nahidi, Y., **Rahimpour, F.**, Taran, M., "Biodegradation of Dibenzothiophene using a bacterial consortium", Proceedings of 13th Iranian National Chemical Engineering congress & 1st International Regional Chemical and Petroleum Engineering Conference, Kermanshah, Iran, 2010.
9. Jangali, H., **Rahimpour, F.**, Vatanpour, V., "Application of response surface methodology for optimization of nickel biosorption in an aqueous solution by *Aspergillus niger*", Proceedings of 13th Iranian National Chemical Engineering congress & 1st International Regional Chemical and Petroleum Engineering Conference, Kermanshah, Iran, 2010.
10. Eivazi, A., **Rahimpour, F.**, "Heat Integration of concentration systems with process and media fluid", Proceedings of 13th Iranian National Chemical Engineering congress & 1st International Regional Chemical and Petroleum Engineering Conference, Kermanshah, Iran, 2010.

11. Baharvand, A., **Rahimpour, F.**, "Phase equilibrium in aqueous two-phase systems containing poly (propylene glycol) and sodium citrate at different pH", Proceedings of International Conference on Biotechnology and Bioengineering, Bali, Indonesia, 2009.
12. Najafi, S.A., **Rahimpour, F.**; "Bioremediation of oil contaminated refinery wastewater", Proceedings of the International conference on Environmental 2008(ICENV2008), Penang, Malaysia, 2008.
13. **Rahimpour, F.**, Hatti-Kaul, R.; "Purification of extracellular recombinant xylanase using two-stage polymer-salt aqueous two-phase system", Proceedings of the 5th International Chemical Engineering Congress, Kish Island, Iran, 2008.
14. **Rahimpour, F.**; Hatti-Kaul, R.; Feyzi, F.; "Refolding of recombinant proteins using polymer-salt aqueous two-phase system", Proceedings of the 5th International Chemical Engineering Congress, Kish Island, Iran, 2008.
15. Madaeni, S.S., Saedi, S., **Rahimpour, F.**, "Optimization of cleaning efficiency of urea and 1-propanol for removal of biofouling layer using response surface methodology", Proceedings of the 5th International Chemical Engineering Congress, Kish Island, Iran, 2008.
16. Keshavarz, N., Sharinia, S., Hosseini, S.N., **Rahimpour, F.**, "Statistical optimization of process conditions for photocatalytic degradation of phenol with immobilization of TiO₂ on perlite granules", International catalysis Conference (ICC2008), Tehran, Iran, 2008.
17. **Rahimpour, F.**, Pirdashti, M.; "The effect of guanidine hydrochloride on phase diagram of PEG-phosphate aqueous two-phase systems", Proceeding of world academic of science, engineering and technology, Berlin, Germany, 2007.
18. **Rahimpour, F.**; Feyzi, F.; "Study of the effects of process parameters on refolding of the recombinant thermostable and alkaline active xylanase in PEG-phosphate two-phase system", Proceedings of the International conference on Science and Technology: Applications in Industry and Education (ICSTIE06), Penang, Malaysia, 2006.
19. **Rahimpour, F.**; Feyzi, F.; Hatti-Kaul, R.; "Study of the effects of process parameters on purification of plasmid DNA in PEG-sodium citrate aqueous two-phase system", Proceedings of the 11th Iranian Congress of Chemical Engineering, Tehran, Iran, 2006.
20. **Rahimpour, F.**; Alavi, S.M.; "Modeling and simulation of catalytic oxidation of benzene in fluidized bed reactor", Proceedings of the 8th Iranian congress of chemical Engineering, Mashhad, Iran, 2003.
21. Omidkhan, M.R.; **Rahimpour, F.**; "Integration of hot-end section of Arak olefin plant", Proceedings of the 1st Iranian Congress of Chemical Engineering, Tehran, Iran, 1994.

Teaching experiences:

Lecture

Biofuels (Postgraduate)

Process Integration (Postgraduate)

Experimental Design (Postgraduate)

Optimization (Postgraduate)

Bioseparation (Postgraduate)

Bioreaction Engineering (postgraduate)

Industrial Biotechnology (Postgraduate)

Dr Farshad Rahimpour

Material and Energy Balance
Fluid Mechanics
Process Control
Chemical Engineering Thermodynamics
Applied Mathematics in Chemical Engineering
Advance Engineering Mathematics
Plant Design and Economics for Chemical Engineering
Petroleum Refinery Engineering

Laboratory

Bioseparation
Fluid Mechanics
Process Control
Industrial chemistry

Scientific positions:

- Member of Iranian Society of Chemical Engineering.
- Member of Iranian association of Biotechnology.
- Referee of Iranian Journal of Chemistry and Chemical Engineering.
- Referee of Iranian Journal of Chemical Engineering.
- Reviewer of Journal of Chemical and Engineering Data; Journal of hazardous materials; Bioprocess chemistry; Korean Journal of Chemical Engineering; Journal of membrane science, Journal of the Taiwan Institute of Chemical Engineers; Fluid Phase Equilibria; Journal of Water Process Engineering; Journal of Industrial and Engineering Chemistry; Renewable Energy, Fuel.
- Secretary of 7th Iranian student Chemical Engineering conference, Kermanshah, Iran, 2009.
- Secretary of 5th Iranian National Chem-E-Car (Chemical Drive Car Competition), 2009.
- Secretary of 13th Iranian Chemical Engineering Congress & 1st International Regional Oil and Chemical Engineering Conference, Kermanshah, Iran, 2010.

postgraduate students:

- ***PhD candidates***
 1. Fakhari, M.A., “*Separation of biomolecules using affinity polymer - salt aqueous two - phase systems*” (Graduated).
 2. Neishabour Salehi, R., “*Application of modified synthetic zeolite like material in the selective separation of N₂ and CO₂ from CH₄*” (Graduated)
 3. Shojaeimehr, T., “*structural and operational study of chromatographic process for biochemical separation*” (Graduated).
 4. Najafi, N., “*Upgrading of fuel oil by microbial and physico-chemical methods*” (Graduated).

5. Sheikhi, M., “*Modelling and simulation of industrial fuel desulfurization reactor*” (Graduated).
6. Soltan Hashim, E., “*Etherification of glycerol / alcohol and study their impact as octane enhancer*” (Graduated).
7. Hojatzadeh, S., “*Modeling the mechanical behavior and simulating the long-term properties of nanocomposites based on HDPE reinforced with pure and modified silica nanoparticles*” (Graduated).
8. Panahi, S., “*Study of the effect of membrane surface modification on its antifouling properties during organic acid production in membrane bioreactor (MBR)*”.
9. Salimi, H., “*Optimizing of Biodesulfurization of dibenzothiophene by immobilized bacteria in microchannel*”.
10. Samadi, S., “

• **MSc students**

1. Pirdashti, M., “*Study of the effect of guanidine hydrochloride on phase equilibria of PEG-Phosphate aqueous two-phase system*”. (Graduated)
2. Baharvand, A., “*study of liquid-liquid equilibrium of PPG425-citrate aqueous two-phase systems*”. (Graduated)
3. Najafi, S.A., “*bioremediation of oil contaminated refinery wastewater*”. (Graduated)
4. Ghasemi, E., “*Mathematical modeling of barrier properties in clay-polymer nanocomposites*”. (Graduated)
5. Shabazinasab, M.K., “*Thermodynamic modeling of PPG725- salt aqueous two-phase systems*”. (graduated)
6. Nahidian, Y., “*Biodesulfurization of crude oil*”. (Graduated)
7. Jangali Nanas, H., “*Bioremediation of heavy metal ion from industrial waste water*”. (Graduated)
8. Najafi, N., “*Bioremediation of oily sludge in petroleum storage tanks and oil separators*”. (Graduated)
9. Naseri, S., “*Isolation and purification of Biomolecules using aqueous two-phase systems and their thermodynamics modeling*”. (Graduated)
10. Kavosi, A., “*Modeling and simulation of di-olefins hydrogenation reactor*”. (Graduated)
11. Saki Nourozi, Gh., “*Effect of nanoparticle Conjugation on the biomolecules Partitioning in Aqueous Two-Phase Systems*”. (Graduated)
12. Ebrahimi, M., “*Bioremediation of MTBE contaminated soil and water*”. (Graduated)
13. Ghahremani, R., “*Purification of biomolecules in aqueous two-phase systems using smart polymers*”. (Graduated)
14. Tajmehr, M., “*Photocatalytic reduction of greenhouse gases (CO₂) to high value products over CuO/TiO₂*”. (Graduated)
15. Shojaeimehr, T., “*Removal of heavy metals from aqueous solutions by modified carbon nano-structures*”. (Graduated)
16. Salati, L., “*Bioremediation of ammonia from industrial wastewater*”. (Graduated)
17. Habibpour, F., “*Removal of heavy metal ions from aqueous solution using modified Hydrogel*”. (Graduated)

18. Akbari, P., "*Preparation and evaluation of nanostructural carriers based on carbon nanotubes as protein delivery vehicles*". (Graduated)
19. Basiri, M. "*Biomolecules separation enhancement in aqueous two-phase systems using modified Nano-particles*". (Graduated)
20. Zareei, S., "*Improvement of Biomolecules adsorption using modified nanoparticles*". (Graduated)
21. Salimi, H., "*Biosynthesis of nanoparticles using microorganisms*". (Graduated)
22. Yazdi, B., "*Thermodynamic modeling of multicomponent phase Equilibria*". (Graduated)
23. Miraani, M.R., "*Thermodynamic modeling of hydrophobic interaction chromatography of proteins*". (Graduated)
24. Maleki, F., "*Purification of biomolecules using embedded nanoparticles in cryogels*". (Graduated)
25. Asadi, Sh., "*Purification of biomolecules by modified polymer hydrogel*". (Graduated)
26. Ghasemi, M., "*biofuel production from molasses and corn using local microorganisms*". (Graduated)
27. Falahat Pishch, E., "*Bioremediation of gasoil contaminated media by local isolated bacterial*". (Graduated)
28. Shirzadi, V., "*Removal of heavy metals from aqueous solutions using local isolated microorganisms*". (Graduated)
29. Esmaili, J., "*Regaining of Nickel from used oil hydrogenation catalyst in edible oils industry*". (Graduated)
30. Samimi, Z., "*Production and optimization of microbial Biopolymer by microorganism isolated from oil wastewater*". (Graduated)
31. Mohamadi, N., "*High-value chemical production from waste lignocellulosic materials using nanostructure photocatalysts*". (Graduated)
32. Piri, H., "*Biodiesel Production using Nano-silica catalysts based on agricultural waste*". (Graduated)
33. Rezaei Chaleshtari, N., "*Production of Polyhydroxybutyrate Biopolymer by Microorganisms*". (Graduated)
34. Heydari, T., "*Production of Copolymers of Polyhydroxyalkanoate- nanoparticles Using Local Isolated Bacteria*". (Graduated)
35. Hosseini, S.P., "*Optimization of carboxymethyl cellulose production using cellulose extracted from agricultural waste*". (Graduated)
36. Shahbandeh, M., "*Continuously production of biodiesel from bacteria in the packed - bed reactor by enzyme immobilization*". (Graduated)
37. Bagheri, E., "*Investigation of phase equilibria behavior of modified PEG-salt aqueous two-phase systems*". (Graduated)
38. Nourozi, M., "*Investigation of photocatalytic adsorption of cadmium by modified chicken feather keratin*". (Graduated)
39. Frouzesh, S., "*Synthesis and characterization of pH-sensitive drug delivery system based on ZnO multifunctional nano-platform doped with ZnS:Co²⁺*". (Graduated)
40. Moradi, A., "*Continuous-flow removal of dye effluents in a fixed bed reactor using light expanded clay aggregate as a green adsorbent*". (Graduated)

41. Saeidi, M., “*Bio-lubricant synthesis from sunflower oil and sorbitol by transesterification reaction*”. (Graduated)
42. Abdollahzadeh, H., “*Investigation of Liquid-liquid equilibrium of alcohol - salts aqueous two-phase systems*”. (Graduated)
43. Boti, A., “*Preparing packaging film based on sodium alginate with antimicrobial properties*”. (Graduated)
44. Rahimi Mirazizi, Z., “*Investigation of heat transfer of unsaturated polyester resin containing Zinc oxide and halo-graphene oxide particles*”. (Graduated)
45. Babakhani, F., “*Biological production of edible (medicinal) pigments using agricultural wastes*”.
- 46.

Scientific reports:

- “Production of modified bio co-polymers using waste agricultural residues”, Elite National Institute of Iran, 2017-2018.
- “Heat Integration of unit 100 of Biston petrochemical complex”, Petrochemical Research and Technology Company (NPC-RT), 2015.
- "Removal of heavy metals using LEKA", Research Council of Razi University, Kermanshah, Iran, 2012.
- "Study of applying thermal spray for manufacturing a new catalyst for synthesis gas production", Research Council of Razi University, Kermanshah, Iran, 2008.
- “Production and purification of lysine”, Iranian Industries Development and Renovation Organization, Iran, 2003.
- “Study of high pressure phase equilibria”, Ministry of Science, Research and Technology, Iran, 2003.
- “Design of falling film evaporator for sugar industries”, Kermanshah Industrial Organization, Iran, 1998.
- “Recovery of lanolin from wool grease in wool washing company”, Kermanshah Industrial Organization, Iran, 1995.