Curriculum Vitae

MASOUD RAHIMI
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Chemical Engineering Dept.
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EDUCATION : CHEMICAL ENGINEERING

Sabbatical leave: Toronto University, Toronto, Ontario, Canada, 2018.

Ph.D Chem. Eng. Dept. The University of Manchester , Manchester , UK , November 2000

Thesis : Visual 3-D modelling of mixing in vessel reactors

Supervisor : Professor R. Mann

M.Sc: Tarbiat Modares University, Tehran, Iran, May 1993

Thesis : Thermal analysis of combustion reaction

Supervisor : Professor A.Z. Moghaddam

B.Sc Petroleum University of Technology, Ahvaz, Iran, February 1988

Thesis: Optimization of distillation tower in Kermanshah Refinery

Supervisor : Professor M. Esazadeh

Biography:

Professor Masoud Rahimi *is a faculty member at the Department of Chemical Engineering at Razi University, Iran. He holds PhD Chemical Engineering graduated from Manchester University, Manchester, England in 2000. His major research interests are CFD modeling, Microfluidics and environmental technology and renewable energy. He has been appointed as head of "Advanced Chemical Engineering Research Center(ACERC)" at Razi University since 2006 to the present. He is between 1% world top Scientists (ESI/ISI) since 2016. He received the national award as "distinguished Iranian professor" in 2010 and Iranian scientific leader in 2023. He has almost 200 articles on related subjects in international journals. He has successfully led more than 40 industrial research projects. He is Editor in Chief of "Iranian Journal of Chemical Engineering" since 2019 and member of the Editorial Board of journals of "modeling in Engineering", Semnan University for 10 years and Journal of Applied Research in Water and Wastewater for 7 years.*

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Scopus Author ID: http://www.scopus.com/authid/detail.uri?authorId=7005294275

https://publons.com/researcher/3983459/masoud-rahimi/

WORKING EXPERIENCE :

-Academic staff , Chem. Eng . Dept,
Razi University, Kermanshah ,Iran,
1993- now

-Head of Advanced Chemical
Engineering Research
Center(ACERC) Razi University,
2006- now.

-Vice Chancellor of Research Department, Razi University, Kermanshah , Iran, 2003-04

-Vice Chancellor of Education & Research Department, Faculty of

Engineering, Razi University, Kermanshah , Iran, 2002-2003

-Head of chemical Engineering Department, Razi University, Kermanshah , Iran, 1995-1997 and 2001-2002

-Process Engineer ,Oil Ind. Eng. and Const. Co(private), Tehran, Iran, 1990-1992

RESEARCH EXPERIENCE :

CFD modelling
Renewable Energy
Water and Waste water Treatment
Membranes
Microfluidics

COMPUTER EXPERIENCE :

Language and Software:

FORTRAN, Basic, C++, AVS, Stanford graphics, Uniras, Excel, CFD (Fluent, COMSOL, Flow3D), 3D studio, CAD, Tecplot, Matlab….

TEACHING EXPERIENCE :

Lecture

-Heat transfer
-Advance fluid mechanics
-Process engineering fundamentals
-Kinetics
-Computer Programming and simulation
-Material and energy balance

Laboratory

- Heat Transfer
- Unit operation
- Industrial chemistry

AWARDS:

- Iranian scientific leader(سرآمد علمی) for year 2023.
- Distinguished 1% Top world Scientist (ISI/ESI) Since 2016.
- Distinguished Professor for Year 2011 in Iranian University
- Distinguished Researcher for Year 2003 -2023 in Razi University
- Distinguished Book Author, 2015.
  Book Title: CFD application in Chemical Engineering, 2015.
- Distinguished project of the year, Iranian Ministry of Energy, 2015.
  Title: Design of new device for the increase of water productivity from water well, using ultrasound waves
- Distinguished Industrial project of the Year, Ministry of Science, Research and Technology, 2018
  Title: Design and manufacturing of magnetic filter for black powder separation from Natural gas

SCIENTIFIC POSITIONS:

-Editor in chief of Iranian Journal of Chemical Engineering.
Website: http://www.ijche.com/
-Editorial board of journal of modelling in Engineering (Semnan University).
Website: https://modelling.semnan.ac.ir/journal/editorial.board#edb272
-Editorial board of Journal of Applied Research in Water and Wastewater(Razi University).
Website: https://arww.razi.ac.ir/
-Head of Advanced Chemical Engineering Research Center(ACERC).
Website: http://acerc.razi.ac.ir
-Member of Iranian Association of Chemical Engineers (IAChE).
-Member of Research Council of Razi University.
-Member of Promotion Council of of Razi University.
-Member of Postgraduate Committee of Razi University.

BOOK:

-Process design by Aspen Plus , Razi University publication, Kermanshah, Iran, 2005.

-CFD modelling of Mixing in Process Industries, Razi University publication, Kermanshah, Iran, 2008.

-CFD application in Chemical Engineering, Razi University publication, Kermanshah, Iran, 2009. (Distinguished book selected by Iranian Association of Chemical Engineers (IAChE, 2015).

-Pinch analysis and process integration, Razi University publication, Kermanshah, Iran, 2022.

-New methods of heavy metal removal from aqueous streams, Razi University publication, Kermanshah, Iran, 2022.

SELECTED SCIENTIFIC REPORTS:

- CFD modeling survey on the lack of Anti Spinning module in Amine contactor and Amine regeneration towers in maximum load operational condition, Ilam gas refinery, 2023

- Design and troubleshooting of Kermanshah Polymer Company Catalyst Tank Stirrer, 2021.
- Designing and supervising the construction of a continuous wax pilot to improve the quality of wax produced by Kermanshah Polymer Complex, 2019.
- Technical, economic feasibility study on increasing the efficiency of CGS heaters with different capacities with changes in its structure, 2018.
- Design and manufacture of magnetic filters to separate metal particles from natural gas, 2015.
- Use of nanofiltration membranes with anti-fouling capability to remove color, taste and odor-producing agents of Gavshan Dam water reservoir, 2014.
- Investigation of upgrade and optimization of Bisotoun water treatment unit using MBBR method, 2013.
- Investigating the possibility of using ultrasonic waves to prevent freezing of natural gas transmission lines, 2010.

- Investigating and designing the possibility of changing the mixing system of the final purification tank of Bisotoun power plant from impeller to jet, 2006.
- Investigation of the cause of damage to super heater pipes in Bisotoun power plant boilers, 2005.
- Modeling and construction of a pilot to investigate jet mixing and agitation in crude oil storage tanks, 2004.
- Investigation of crude oil mixing in storage tanks using CFD modeling, 2002.

PATENTS:

- Antifouling nanofiltration PES membranes incorporating with C-KIT-6 for heavy metal ions removal from water, 2020

- Preparation of mixed-matrix polymeric membrane containing incorporated with mesoporous Silicium-terephtalat nano-material for heavy metals removal from wastewater, 2020.

- Solar still using evaporation layer inhibitor, 2019.

- Gas magnetic filter for high velocity and pressure in TBS and CGS,2016.

- Process for increase of water productivity from water well using ultrasound waves transmitter, 2015.

- Using geothermal energy for preventing gas hydrate formation in natural gas transfer pipeline,2009.

PUBLICATIONS:

Before 2010……

1. Rahimi, M. and Mann, R.,″ Macro-mixing, partial segregation and 3-D selectivity fields for a semi-batch stirred reactor″, Chem. Engineering Science, 56, 763,2001.
2. Rahimi, M., Senior, P.R. and Mann, R., ″Visual 3-D modelling of stirred vessel mixing for an inclined-blade impeller″, Trans.I.Chem.E., **78**, 348, 2000
3. Alizadeh, A.A ,Rahimi, M.,"CFD Simulation of Homogenization in Large Scale Crude Oil Storage Tanks, Journal of Petroleum Science and Engineering, 43,151-161, 2004.
4. Rahimi, M., "The effect of impellers' layout on mixing time in a large scale crude oil storage tank" Journal of Petroleum Science and Engineering, 46, 161– 170, 2005
5. Rahimi, M., Madaeni, S.S, Abassi, K, "CFD modeling of permeate flux in cross flow microfiltration membrane", Journal of membrane science, 255,23-31,2005.
6. Rahimi, M. and Parvareh,A. "Experimental and CFD investigation on mixing by a jet in a semi-industrial stirred tank"., Chemical Engineering Journal, 115, 85-92, 2005.
7. Rahimi,M.,Khoshhal,A. andShariati,S.M. "CFD modeling of a boiler's tubes rupture", Applied thermal Engineering, 26, 2192-2200, 2006.
8. Rahimi, M., and Parvareh, A." CFD study on mixing by coupled jet-impeller mixers in a large crude oil storage tank", Computer and Chemical Engineering, 31,737-744, 2007.
9. Rahimi, M., Mohseni, M.,"CFD modeling of the effect of absorbent size onabsorption performance of a packed bed column", Korean journal of Chemical Eng., 25, 3, 395, 2008.
10. Rahimi, M., Shabanian, S.R.,AlsairafiA.A. "CFD and experimental studies on the performance of the modified twisted tape tube inserts",Chemical Engineering and Processing, 48, 762-770, 2008.

11. Alizadehdakhel A., Rahimi M., Alsairafi A.A. "Numerical and experimental investigation on a new modified valve employed in a valve tray column", Korean J. of Chemical Engineering, 26, 475-284, 2009.
12. Khoshhal A., Rahimi M., Alsairafi A.A "CFD investigation on the effect of air temperature on air blowing cooling system for preventing tube rupture", International communications in heat and mass transfer., 36 ,750-756,2009.
13. Alizadehdakhel A.,Rahimi M.,Sanjari, J.,AlsairafiA.A., "CFD and artificial neural network modeling of two-phase flow pressure drop, International communications in heat and mass transfer, 36 , 850–856,2009.
14. Rahimi, M., Madaeni S. S., Abolhasani, M., Alsairafi A.A.,"CFD and Experimental Studies on a Membrane Microfiltration Fouling" Chemical Engineering and Processing,48, 1405-1413, 2009.
15. AbbasiKhazaei K.,.Hamidi A.A, Rahimi M., Numerical investigation of fuel dilution effects on the performance of the conventional and the highly preheated and diluted air/exhaust gas combustion furnaces, Chinese journal of Chemical Engineering, 17, 711-726, 2009.
16. Parvareh A., Yarmohammadi M., Rahimi M.,AlsairafiA.A, Experimental and CFD study on the effect of jet position on reactant dispersion performance, International communications in heat and mass transfer, 36 , 1096–1102, 2009.
17. Numerical modelling and simulation of highly preheated and diluted air combustion furnaces, International Journal of Engineering, 22, 107-118, 2009.
18. A. Parvareh, M. Rahimi, Ammar Abdulaziz Alsairafi, Experimental and CFD Studies on the Effect of the Jet Position on Mixing Performance,Iranian Journal of Chemical Engineering, 6, 3012,2009.
19. Mirshahi H., Rahimi M., Experimental study on the effect of the heat loads, fill ratio and extra volume on performance of a partial-vacuumed thermosyphon, Iranian journal of Chemical Engineering,6, 15-27, 2009.

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20. Alizadehdakhel A. Rahimi M.,AlsairafiA.A." CFD and experimental study on the effect of the valve's weight on the performance of a valve tray column, Computer and Chemical Engineering journal, 34, 1–8, 2010.(Hot paper)
21. Madaeni S. S., Rahimi, M., Abolhasani M., Investigation of cake deposition on various parts of the surface of microfiltration membrane due to fouling, Korean journal of Chemical Engineering, 27, 206-213 ,2010.
22. Alizadehdakhel A.,Rahimi M.,AlsairafiA.A., CFD modelling of flow and heat transfer in a thermosyphon, International communications in heat and mass transfer,37, 312-318, 2010.(Hot paper)
23. Rahimi M., Mirshahi H., The effect of fill ratio on performance and heat transfer coefficient of thermosyphon's evaporator and condenser, Journal of Engineering material, 1, 41-51, 2010.
24. ParvarehA., Rahimi M.,AlizadehdakhelA., AlsairafiA.A., CFD and ERT investigations on two-phase flow regimes in vertical and horizontal tubes, International communications in heat and mass transfer, 37, 304-311, 2010.(Hot paper)
25. Rahimi M., Asgari K., Jesri S., Thermal characteristics of a resurfaced condenser and evaporator closed two-phase thermosyphon, International communications in heat and mass transfer, 37, 703–710, 2010.
26. RahimiM.,Aghel B.,AlsairafiA.A., Experimental and CFD investigation on power generation enhancement in a PEM fuel cell using a coil wire insert, Chemical Engineering and Processing journal , 49, 689-696, 2010.
27. Heidaryan E., Moghadasi J., Rahimi M. New Correlations to Predict Natural Gas Viscosity and Compressibility Factor, Petroleum science and engineering, 73,67-72, 2010.

28. Rahimi M., Kakehkhani A., Alsairafi A.A., Experimental and CFD Studies on Mixing Characteristics of a Modified Helical Ribbon Impeller, Korean journal of chemical Engineering, 27, 1150-1158, 2010.
29. Khoshhal A., Rahimi M., Alsairafi A.A., CFD modeling of NOx emission, HiTAC and heat transfer in an industrial boiler, Numerical heat transfer journal,58, 295-312, 2010.
30. AbbasiKhazaei K.,.Hamidi A.A, Rahimi M., CFD modeling study of High Temperature and low oxygen content exhaust gases combustion furnaces, Iranian journal of Chemistry and Chemical Engineering,29, 86-104, 2010.
31. Hatami T., Rahimi M., Vetiver oil extraction optimization using supercritical carbon dioxide fluid, Iranian journal of Chemical Engineering,7,64-70, 2010.

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32. Hatami T., Rahimi M., Veggi, P.C., M. A. A. Meireles, Mathematical Modeling of near-critical carbon dioxide extraction of khoa (Satureja boliviana Benth Briq) using ethanol as a co-solvent, Journal of Supercritical fluids, 55, 929–936, 2011.
33. Shabanian S.R, Rahimi M., M. Shahhosseini, A. A. Alsairafi , CFD and experimental studies on heat transfer enhancement in an air cooler equipped with different tube inserts, International communications in heat and mass transfer, 38, 383–390, 2011.
34. Heidaryan E., Hatami T., Rahimi M., J. Moghadasi, Viscosity of Carbon Dioxide at Supercritical Region, Measurement and Correlation Approach, Journal of Supercritical fluids, 56, 144–151, 2011.
35. Hatami T., Rahimi M., J. Vera, On the Compatibility between Vapor Pressure Data and the Critical Constants: Use of the van der Waals Family of Cubic Equations of State to study the cases of 2-Methoxyethanol and 2-Ethoxyethanol, Fluid Phase Equilibria, 303,201-204, 2011.
36. Khoshhal A., Rahimi M., Alsairafi A.A., Diluted Air Combustion and NOx Emission in a HiTAC Furnace, Numerical heat transfer journal, 59, 633–651, 2011.

37. Parvareh A., Rahimi M., Madaeni S.S., Alsairafi A.A., Experimental and CFD study on the role of fluid flow pattern on membrane permeate flux, Chinese journal of Chemical Engineering, 19, 18-25 ,2011.
38. Khoshhal A., Rahimi M., GhahramaniA., AlsairafiA.A., CFD Modeling of High Temperature Air Combustion Technique in a Heat Recovery Steam Generator Boiler, Korean journal of chemical Engineering,28, 1181-1187, 2011.
39. Rahimi M., Amraei S., Alsairafi A.A., Experimental and CFD modeling of mixing by Visco-jet impellers, Korean journal of chemical Engineering, 28, 1372-1379 ,2011.
40. Shabanian S.R, Rahimi M., A. A. Alsairafi , CFD study on hydrogen–air premixed combustion in a micro scale chamber, Iranian J. of Chemical Engineering, 29, 155-165, 2011.
41. Parvizian F., Rahimi M., Faryadi M., Macro- and micromixing in a novel sonochemical reactor using high frequency ultrasound, Chemical Engineering and Processing journal, 50, 732– 740, 2011.
42. Khoshhal A., Rahimi M, Alsairafi A.A., CFD study on influence of fuel temperature on NOx emission in a HiTAC furnace, International communications in heat and mass transfer, 38, 1421–1427 2011.

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43. Parvizian F., Rahimi M., Hosseni, S.M.., Madaeni, S.S., Alsairafi A.A., The affect of high frequency ultrasound waves on ion exchange membrane electrochemical properties at different electrolytic concentration, Desalination,286,155–165, 2012.
44. Ahanj M.D., Rahimi M., Alsairafi A. A., CFD modeling of a radiant tube heater,International communications in heat and mass transfer, 39, 432–438,2012.
45. Hatami T., Rahimi M., Daraei H., Heidaryan E., Alsairafi A.A., PRSV equation of state parameter modeling through artificial neural network and adaptive network-based fuzzy inference System, Korean journal of chemical Engineering, 29,657-667, 2012.

46. Parvizian F., Rahimi M., Faryadi M., A comparison between mixing in a novel high frequency sonoreactor and a stirred tank reactor, Engineering Applications of Computational Fluid Dynamics,6, 295–306 , 2012.
47. Parvizian F., Rahimi M., Azimi, N., Macro- and micromixing studies on a high frequency continuous tubular sonoreactor, Chemical Engineering and Processing journal,57– 58, 8– 15, 2012.
48. Rahimi, M., DehbaniM., AbolhasaniM., Experimental study on the effects of acoustic streaming of high frequency ultrasonic waves on convective heat transfer: effects of transducer position and waves interference,International communications in heat and mass transfer,39, 720–725, 2012.
49. Beigzadeh R., Rahimi, M., Prediction of heat transfer and flow characteristics in helically coiled tubes using artificial neural networks, International communications in heat and mass transfer, 1279-1285, 2012.
50. Beigzadeh R., Rahimi, M., Shabanian S.R., Developing a feed forward neural network multilayer model for prediction of binary diffusion coefficient in liquids, Fluid Phase Equilibria, 331, 48–57, 2012.
51. Karami A., Rezaei E., Rahimi M. and Zanjani M., Artificial Neural Modeling of the Heat Transfer in an Air Cooled Heat Exchanger Equipped with Butterfly Inserts, International Energy Journal 13, 21-28 ,2012.
52. Shabanian S.R., Rahimi M., Amiri A., Sharifnia S., Alsairafi A.A., CFD modeling of hydrogen production in an autothermal reactor: effect ofdifferent thermal conditions, Korean journal of chemical Engineering, 29, 1531-1540, 2012.
53. Rahimi, M., Abolhasani M., Dehbani M., Alsairafi A.A., CFD modeling of heat transfer by high frequency ultrasound waves, Numerical heat transfer-Part A, 62, 822–841, 2012.
54. Beigzadeh R., Rahimi, M., Prediction of thermal and fluid flow characteristics in helically coiled tubes using ANFIS and GA based correlations, International communications in heat and mass transfer, 39, 1647-1653, 2012.

2013……..

55. Karami A., Rezaei E., Rahimi M. and KhaniS., Modeling of Heat Transfer in an Air Cooler Equipped with Classic Twisted Tape Inserts Using Adaptive Neuro-Fuzzy Inference System, Chemical Engineering Communications, 200, 532–542, 2013.
56. Shabanian S.R., MedwellP.R,Rahimi M.,FrassoldatiA.,Cuoci, A.Kinetic and fluid dynamic modeling of ethylene jet flames in diluted and heated oxidant stream combustion conditions, Applied Thermal Engineering, 52, 538-554, 2013.
57. Valeh-e-Sheyda P., Rahimi M., Karimi E., Asadi M., Application of two-phase flow for cooling of hybrid microchannel PV cells:A comparative study, Energy conversion and Management, 69, 122–130, 2013.
58. Azari, A. Kalbasi, M., Rahimi M., Numerical study on the laminar convective heat transfer of Al2O3/Water nanofluids, Journal of Thermophysics and Heat Transfer,27, 170-173, 2013.
59. Amiri A., Rahimi M., Shabanian S.R., Experimental study on using HiTAC technique for synthesis gas production, Chemical Engineering Communications, 200,907–918, 2013.
60. Rahimi M., Karimi E., Asadi M., Valeh-e-Sheyda P., Heat transfer augmentation in a hybrid microchannel solar cell, International communications in heat and mass transfer, 43, 131–137,2013.
61. Azimi, N., Parvizian F., Rahimi M., Using microparticles to enhance micromixing in a high frequency continuous flow sonoreactor, Chemical Engineering and Processing journal, 70,250– 258, 2013.
62. Beigzadeh R., Rahimi, M., Parvizi M., Effects of geometrical parameters on heat transfer rate augmentation in helically coiled tubes, Heat Mass Transfer journal, 49,1307–1318, 2013.
63. Fazlali, A., Beigzadeh R., Rahimi, M., Application of artificial neural network for vapor liquid equilibrium calculation of ternary system including ionic liquid: Water, Ethanol

and 1-Butyl-3-methylimidazolium Acetate, Korean Journal of Chemical Engineering,30, 1681-1686, 2013.

64. Azari, A. Kalbasi, M., Derakhshandeh, M., Rahimi M., An Experimental Study on Nanofluids Convective Heat TransferThrough a Straight Tube under Constant Heat Flux Chinese Journal of Chemical Engineering, 21, 1082-1088, 2013.

2014……

65. Azimi,N., Rahimi M., Parvizian F., Alsairafi A.A., Computational Fluid Dynamics modeling of micromixing performance in presence of microparticles in a tubular sonoreactor, Computer and Chemical Engineering, 60, 403– 412 , 2014.
66. Beigzadeh R., Rahimi, M., Parvizi M., Eiamsa-ard S., Application of ANN and GA for the prediction and optimization of thermal and flow characteristics in a rectangular channel fitted with twisted tape vortex generators, Numerical Heat Transfer-Part A, 65, 186–199, 2014.
67. Parvizian F., Rahimi M., Azimi,N., Alsairafi A.A., CFD modeling of micromixing and velocity distribution in a 1.7 MHz tubular sonoreactor, Chemical Engineering and technology, 37,1-11, 2014.
68. ZinadiniS., Zinatizadeh A., Rahimi M., Vatanpour V., Zangeneh H., Preparation of a novel antifouling mixed matrix PES membrane by embedding graphene oxide nanoplates, Journal of Membrane Science, 453, 292–301,2014.
69. Faryadi M., Rahimi M., SafariS., MoradiN., Effect of high frequency ultrasound on micromixing efficiency in microchannels, Chemical Engineering and Processing, 77, 13– 21, 2014.
70. Rahimi M., AghelB., Alitabar M., Sepahvand A., GhasempourH.R., Optimization of biodiesel production from soybean oil in a microreactor, Energy Conversion and Management, 79, 599–605, 2014.

71. Valeh-e-Sheyda P., Rahimi M., Parsamoghadam A., Masahi M. M., Using a wind-driven ventilator to enhance a photovoltaic cell power generation, Energy and Building, 73,115-119, 2014.
72. Aghel B, Rahimi M., Alitabar M., Sepahvand A., GhasempourH.R., Using a wire coil insert for biodiesel production enhancement in a microreactor, Energy Conversion and Management,84, 541–549, 2014.
73. Rahimi M., Safari S., Faryadi M., Moradi N., Experimental investigation on proper use of dual high-low frequency ultrasound waves- Advantage and disadvantage, Chemical Engineering and Processing, 78, 17–26, 2014.
74. Rahimi M., Valeh-e-Sheyda P., Parsamoghadam A., Masahi M. M., Alsairafi A.A.,Design of a self-adjusted jet impingement system for cooling of photovoltaic cells, Energy Conversion and Management, 83, 48–57, 2014
75. Karami, N., Rahimi M., Heat transfer enhancement in a hybrid microchannel-photovoltaic cell using Boehmite nanofluid, International communications in heat and mass transfer, 55, 45–52, 2014.
76. Azari, A. Kalbasi, M., Rahimi M., CFD and experimental investigation on the heat transfer characteristic of alumina nanofluids under laminar flow regime. Brazilian Journal of Chemical Engineering. 31,469 - 481, 2014.
77. Karami, N., Rahimi M., Heat transfer enhancement in a PV cell using Boehmitenanofluid, Energy Conversion and Management, 86, 275–285,2014.
78. Dehbani M., Rahimi M., Abolhasani M., Maghsoodi A., GhaderiAfshar P., Dodmantipi A.R., Alsairafi A.A., CFD modeling of convection heat transfer using 1.7 MHz and 24 kHz ultrasonic waves- A comparative study, Heat Mass Transfer,50,1319–1333 , 2014.
79. Rahimi M., Aghel B., Sadeghi M., Ahmadi M., Using Y-shaped microreactor for continuous decolorization of an Azo dye, Desalination and water treatment, 52, 5513–5519, 2014.
80. Rahimi M., Aghel B., Hatamifar, B. Akbari, M., Alsairafi A.A., CFD modeling of mixing intensification assisted with ultrasound wave in a T-type microreactor, Chemical Engineering and Processing, 86, 36-46, 2014.

81. Zinadini S., Rahimi M., Zinatizadeh, A.A, Novel high flux antifouling nanofiltration membranes for dye removal containing carboxymethyl chitosan coated Fe3O4 nanoparticles, Desalination, 349,45–154 2014.
82. Rahimi M. ,Valeh-e-Sheyda P., Parsamoghadam M.A., Azimi N., Adibi H., LASP and Villermaux/Dushman protocols for mixing performance in microchannels: Effect of geometry on micromixing characterization and size reduction, Chemical Engineering and Processing, 85, 178–186, 2014.

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83. Zinadini S., Rahimi M., Zinatizadeh, A.A, ShaykhiMehrabadi,Z. High frequency ultrasound-induced sequence batch reactor as a practical solution for high rate wastewater treatment, J. Environmental Chemical Engineering, 3 , 217-226, 2015.
84. Abolhasani M., Karami, A., Rahimi M., Numerical modeling and optimization of enhancement of cooling rate in concentric tubes under ultrasound field, Numerical heat transfer- A, 67, 1282–1309, 2015.
85. Rahimi M. , Valeh-e-Sheyda P., Parsamoghadam M.A., Azimi N., Adibi H., Geometrical Effect of micro-channels on size reduction of curcumin Nano-suspension Via Liquid Anti-solvent Precipitation Process, Journal of the Taiwan Institute of Chemical Engineers, 46, 65-73, 2015.
86. Rahimi M. , Akbari M., Parsamoghadam, M.A, Alsairafi, A.A.,CFD study on effect of channel confluence angle on fluid flow pattern in asymmetrical shaped microchannels, Computer and Chemical engineering,73, 172-182, 2015.
87. Rahimi M., Abolhasani M., Azimi, N., High frequency ultrasound penetration through concentric tubes: illustrating cooling effects and cavitation intensity, Heat Mass Transfer, 5, 587-599, 2015

88. Faryadi M., Rahimi M., Moradi N., Safari S., Ammonia removal using 1.7 MHz high frequency ultrasound in batch and novel dam-weir falling systems, Desalination and water treatment, 54, 3412-3421, 2015.
89. Ebrahimi, M.,Rahimi M., Rahimi A., An experimental study on using natural vaporization for cooling of a photovoltaic solar cell , International Communication in Heat and Mass Transfer, 65, 22-30, 2015.
90. Rahimi M., Asadi M., Karami N., Karimi, E., A comparative study on using single and multi headermicrochannels in a hybrid PV cell cooling, Energy Conversion and Management,101,1-8, 2015.
91. Nalini N., Rahimi M., Heydari, R.,Oleuropein extraction using microfluidic system, Chemical Engineering and Processing, 92. 1-6, 2015.
92. Valeh-e-Sheyda P., Rahimi M., Adibi H., Razmjou Z., Ghasempour H., An insight on reducing the particle size of poorly-water soluble curcumin via LASP in microchannels, Chemical Engineering and Processing, 91. 78-88, 2015.
93. Rahimi M., Hajialyani M., Beigzadeh R., Alsairafi, A.A., Application of Artificial Neural Network and Genetic Algorithm Approaches for Prediction of Flow Characteristic in Serpentine Microchannels, Chemical Engineering Research and Design, 9 8 147–156 , 2 0 1 5.
94. Zinadini S., Vatanpourb V., Zinatizadeh A.A, Rahimi M, Rahimi Z., Kian M., Preparation and characterization of antifouling grapheneoxide/polyethersulfone ultrafiltration membrane: Application in MBR for dairy wastewater treatment, Journal of Water Process Engineering , 7 280–294, 2015
95. Basiri, M. , Rahimi , M., Mohammadi, F., Investigation of Liquid–liquid two-phase flow pattern in microreactors for biodiesel production, IJCHE, 12, 32-40, 2015.

96. Rahimi M., Banybayat M., Tagheie Y. , Valeh-e-Sheyd P., An insight on advantage of hybrid sun–wind-tracking over sun-trackingPV system, Energy Conversion and Management, 105, 294–302, 2015.
97. MohammadiDoust A., Rahimi M., Feyzi M., Effects of solvent addition and ultrasound waves on viscosity reduction of residue fuel oil, Chemical Engineering and Processing, 95, 353–361, 2015.
98. MohammadiDoust A., Rahimi M., Rostami A., Modeling of BOD and COD removal in an aeration process treating refinery waste water by artificial neural network , Petroleum and Coal, 57, 500-508, 2015.
99. Azimi N., Rahimi M., Abdollahi,N., Using magnetically excited nanoparticles for liquid-liquid two-phase mass transfer enhancement in a Y-type micromixer, Chemical Engineering and Processing, 97, 12–22, 2015.
100. Beigzadeh,R., Parvareh, A., Rahimi , M., Experimental and CFD Study of the Tube Configuration Effect on the Shell-Side Thermal Performance in a Shell and Helically Coiled Tube Heat Exchanger, Iranian Journal Of Chemical engineering, 12, 13-25, 2015

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101. Dadari S., Rahimi M., Zinadini, S., Crude oil desalter effluent treatment using high flux synthetic nanocomposite NF membrane- optimization by response surface methodology, Desalination, 377, 34-46, 2016.
102. MohammadiDoust A., Rahimi M., Feyzi M., An Optimization Study by Response Surface Methodology (RSM) on Viscosity Reduction of Residue Fuel Oil Exposed Ultrasonic Waves and Solvent Injection, IJChE,13, 3-19, 2016.
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