

Rahbar Rahimi

Professor

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Education

- B.Sc, Chemical Engineering,Ferdowsi University of Mashhad - 1975
- MS, Chemical Enginering Processes Design,University of Bath Spa - 1978
- PhD, Chemical Engineering - Heat Transfer in Separation,University of Bath Spa - 1989

Courses

1. Principles of Advanced process Engineering
2. modelling and simulation of chemical processes
3. advanced mass transfer
4. Introdution to chemical Engineering
5. Multicomponent Distillation
6. Multicomponent Mass Transfer
7. Computational fluid Dynamics
8. training
9. Plant design and economics
10. Multicomponent separation

Journals Papers

2020

1. Coupled computational fluid dynamics-response surface methodology to optimize direct methanol fuel cell performance for greener energy generation

, Rahbar Rahimi, Davod Mohebbi Kalhori, C. Ozgur Colpan

ENERGY Volume: (198) 117293-1 - 117293-10

2. Effect of superficial gas velocity on CO2 capture from air by Chlorella vulgaris microalgae in an Airlift photobioreactor with external sparger

, , Rahbar Rahimi

Journal of Environmental Chemical Engineering Volume: (8) 104022-1 - 104022-8

3. Experimental and numerical investigating a new configured thermal coupling between metal hydride tank and PEM fuel cell using heat pipes

Farshid Mahmoudi, Rahbar Rahimi

APPLIED THERMAL ENGINEERING Volume: (178) 115490-1 - 115490-16

4. Simulation of an Industrial Three Phase Boot Separator Using Computational Fluid Dynamics

Zohreh Khalifat, Mortaza Zivdar, Rahbar Rahimi

Journal of Gas Technology Volume: (6) 30 - 42

2019

5. Investigation on the Catalytic Conversion of Hydrogen Sulfide to Methyl Mercaptan as a Novel Method for Gas Sweetening Experimental and Modeling Approaches

Seyedabdolmajid Khaksar, Mortaza Zivdar, Rahbar Rahimi

Journal of Natural Gas Science and Engineering Volume: (61) 97 - 105

6. CFD Modeling to Predict Mass Transfer in Multicomponent Mixtures

, Rahbar Rahimi, Mortaza Zivdar, Mohammad Kalbassi

Chemical Product and Process Modeling Volume: (14) 1 - 15

7. Optimization and Experimental Approaches to the Direct Methanol Fuel Cell Stack Using a Response Surface Methodology

, Rahbar Rahimi, Davod Mohebbi Kalhori, Can Ozgur Colpanb

Journal of Renewable Energy and Environment Volume: (6) 22 - 29

8. Effect of Ni-Co morphology on kinetics for Fischer-Tropsch reaction in a fixed-bed reactor

, Ali Akbar Mirzaei, Rahbar Rahimi, Hossein Atashi

Journal of the Taiwan Institute of Chemical Engineers Volume: (105) 104 - 114

9. Application of CFD for Troubleshooting and Hydrodynamic Analysis in an Industrial Three-Phase Gravity Separator

Zohreh Khalifat, Mortaza Zivdar, Rahbar Rahimi

Journal of Gas Technology Volume: (5) 57 - 75

10. Transient three-dimensional simulation of a metal hydride hydrogen storage tank interconnected to a PEM fuel cell by heat pipes

Farshid Mahmoudi, Rahbar Rahimi

Iranian Journal of Hydrogen and Fuel Cell Volume: (6) 117 - 132

11. A Green Route for Wasted Sulfur Consumption: Kinetic Modelling of Methyl Mercaptan Synthesis from Refinery H2S Streams over the K2Wo4/Al2O3 Catalyst

Seyedabdolmajid Khaksar, Mortaza Zivdar, Rahbar Rahimi

Advances in Environmental Technology Volume: (5) 213 - 219

2018

12. Response surface methodology in optimization of a divided wall column

, Rahbar Rahimi, Mortaza Zivdar

KOREAN JOURNAL OF CHEMICAL ENGINEERING Volume: (35) 1414 - 1422

13. CFD modeling of multiphase flow in reactive distillation column

Maryam Mazarei sotoodeh, Mortaza Zivdar, Rahbar Rahimi

CHEMICAL ENGINEERING AND PROCESSING Volume: (129) 1 - 9

14. Hydrodynamic study of different configurations of sieve trays for a dividing wall column by using experimental and CFD methods

, Rahbar Rahimi, Mortaza Zivdar

CHEMICAL ENGINEERING AND PROCESSING Volume: (129) 162 - 170

15. Computational fluid dynamics modeling of carbon dioxide capture from air using biocatalyst in an airlift reactor

, Rahbar Rahimi, Farid Farhaddad

BIORESOURCE TECHNOLOGY Volume: (253) 154 - 164

16. Numerical investigation of methanol crossover through the membrane in a direct methanol fuel cell

, Rahbar Rahimi, Davod Mohebbi Kalhori, CAN OZGUR COLPAN

Iranian Journal of Hydrogen and Fuel Cell Volume: (5) 21 - 33

17. Pressure drop in randomly packed absorption tower in transient Flow regime

, Rahbar Rahimi, Mortaza Zivdar

Journal of Gas Technology Volume: (3) 38 - 47

18. New Design and Optimization for Replacing Dimethyl Disulfide with Wasted Disulfide Oil in Olefin Furnaces

Erfan Ziarifar, Rahbar Rahimi, Mortaza Zivdar

ENERGY and FUELS Volume: (32) 11375 - 11382

19. Using disulfide oil as coke inhibitor to reduce environmental hazards in olefin heaters

Erfan Ziarifar, Rahbar Rahimi, Mortaza Zivdar

Advances in Environmental Technology Volume: (4) 183 - 186

2017

20. CFD Simulation of Dry and Wet Pressure Drop and Flow Patern in Catalytic Structured Packings

Maryam Mazarei sotoodeh, Mortaza Zivdar, Rahbar Rahimi

Journal of Chemical and Petroleum Engineering Volume: (51) 27 - 37

21. CO 2 capture from air by Chlorella vulgaris microalgae in an airlift photobioreactor

, Farid Farhaddad, Leila Moghaddasi, Rahbar Rahimi

BIORESOURCE TECHNOLOGY Volume: (243) 441 - 447

22. Experimental Studies on the Conical Cap tray Performance

Taleb Zarei, , Rahbar Rahimi,

Journal of Chemical and Petroleum Eng "JCHPE" Volume: (50) 47 - 52

23. Computational fluid dynamics on the hydrodynamic characteristics of the conical cap tray

taleb zarei, , Rahbar Rahimi,

KOREAN JOURNAL OF CHEMICAL ENGINEERING Volume: (34) 969 - 976

2016

24. Application of Computational uid dynamics method to investigate the use of vapor directional valve in sieve trays performance

, Rahbar Rahimi

Volume: (5) 48 - 59

25. Simulation Control and Experimental Analysis of 13 Butadiene Purification Unit

Rahbar Rahimi, , Erfan Ziarifar

Iranian Journal of Chemical Engineering Volume: (13) 33 - 45

2015

26. Investigation of Heat Transfer Parameters of a Bundle of Heaters in a Simple Bubble Column Reactor Using CFD Method

Rahbar Rahimi, Somayeh Hajghani

Journal of Chemical and Petroleum Eng "JCHPE" Volume: (49) 31 - 49

27. Modeling and Simulation of a DividedWall Column for 13 Butadiene

Rahbar Rahimi, Mohamad Soudmand, Mortaza Zivdar, ,

Iranian Journal of Chemical Engineering Volume: (12) 60 - 67

28. Hydrodynamics of Sieve Tray Distillation Column Using CFD Simulation

, Rahbar Rahimi

Journal of Chemical and Petroleum Eng "JCHPE" Volume: (49) 119 - 129

29. Modeling and Simulation of a Divided Wall Column for 1,3 Butadiene Purification

Rahbar Rahimi, , Mortaza Zivdar, ,

Iranian Journal of Chemical Engineering Volume: (12) 60 - 67

2013

30. CFD study of weeping rate in the rectangular sieve trays

, seidhossain hossaini, Rahbar Rahimi

Journal of the Taiwan Institute of Chemical Engineers Volume: (44) 27 - 33

31. CFD simulation of concap tray hydrodynamics

, Rahbar Rahimi, taleb zarei, Mortaza Zivdar

Journal of Chemical and Petroleum Engineering Volume: (47) 39 - 50

32. Hydrodynamic characteristic of conical cap tray experimental studies on dry and total pressure drop weeping and entrainment

Rahbar Rahimi, Mortaza Zivdar

CHEMICAL ENGINEERING AND PROCESSING Volume: (64) 17 - 23

33. CFD and Experimental studies of liquid weeping in the circular sieve tray columns

, Seyyed Hossein Hosseini, Rahbar Rahimi

CHEMICAL ENGINEERING RESEARCH and DESIGN Volume: () 2333 - 2345

34. Hydrodynamic characteristic of Conical Cap tray: Experimental studies on dry and total pressure drop, weeping and entrainment

, Rahbar Rahimi, , Mortaza Zivdar

CHEMICAL ENGINEERING AND PROCESSING Volume: (64) 17 - 23

2012

35. The effect of tray geometry on the sieve tray efficiency

Rahbar Rahimi, ,

CHEMICAL ENGINEERING SCIENCE Volume: (76) 90 - 98

2011

36. Effect of Inlet downcomer on the hydrodynamic parameters of sieve trays using CFD analysis

Rahbar Rahimi,

Journal of chemical and petroleum engineering university of Tehran Volume: (45) 27 - 38

37. Modeling and Determination of Heat Transfer Coefficient in a Basin Solar Still Using CFD

, Rahbar Rahimi,

DESALINATION Volume: (268) 103 - 110

38. Study of Heat Transfer from an Immersed Bar in a Simple Batch Bubble Column by CFD

Rahbar Rahimi,

INTERNATIONAL REVIEWS IN PHYSICAL CHEMISTRY Volume: (3) 68 - 75

2010

39. CFD studies of solids hold-up distribution and circulation patterns in gas-solid

Seyyed Hossein Hosseini, Goodarz Ahmadi, Rahbar Rahimi, Mortaza Zivdar, Mohsen Nasr Esfahany

POWDER TECHNOLOGY Volume: (200) 202 - 215

40. Unsteady state simulation of bubbling fluidized bed by CFD

Seyyed Hossein Hosseini, Rahbar Rahimi, Mortaza Zivdar, Abdolreza Samimi

Volume: (21) 13 - 30

2009

41. CFD simulation of gas-solid bubbling fluidized bed containing FCC particles

, Rahbar Rahimi, Mortaza Zivdar, Abdolreza Samimi

KOREAN JOURNAL OF CHEMICAL ENGINEERING Volume: (26) 1405 - 1413

42. Computational fluid dynamic simulation of MVG tray hydraulics

Taleb Zarei, Rahbar Rahimi, Mortaza Zivdar

KOREAN JOURNAL OF CHEMICAL ENGINEERING Volume: (26) 1213 - 1219

43. Numerical Simulation of Hydrodynamics parameters of the Packed Columns Effects of Geometrical Characteristics on Pressure Drop

masoud haghshenas, Mortaza Zivdar, Rahbar Rahimi,

WORLD APPLIED SCIENCES JOURNAL Volume: (11) 1439 - 1445

44. CFD Simulation of Solid Hold Up in Gas Solid Fluidized Bed at High Gas Velocities

, Mortaza Zivdar, Rahbar Rahimi, Abdolreza Samimi

Chemical Product and Process Modeling Volume: (4) -

2008

45. Determination of pressure drop in wire mesh mist eliminator by CFD

Rahbar Rahimi,

CHEMICAL ENGINEERING AND PROCESSING Volume: (47) 1504 - 1508

46. COMPARISON BETWEEN 2D AND 3D TRANSIENT FLOW SIMULATION OF GAS LIQUID DYNAMICS IN TWOPHASE

, Rahbar Rahimi

International Journal of Chemical Sciences Volume: (6) 857 - 872

2007

47. Effective Parameters in Computational Fluid Dynamics Simulation of Baffled Stirred Column Reactor Hydrodynamics with Sliding Mesh

Rahbar Rahimi, Mortaza Zivdar, , Farhad Shahraki,

asian journal of chemistry (MSRT BLACKLIST) Volume: (1) -

2006

48. Prediction of Temperature and Concentration Distributions of Distillation Sieve Trays by CFD

Rahbar Rahimi, Farhad Shahraki, Mortaza Zivdar

Tamkang Journal of Science and Engineering Volume: (3) -

49. Efficiencies of Sieve Tray Distillation Columns by CFD Simulation

Rahbar Rahimi, , Farhad Shahraki, Mortaza Zivdar

CHEMICAL ENGINEERING and TECHNOLOGY Volume: () -

50. Prediction of Temperature and Concentration Distribution Sieve Trays by CFD

Rahbar Rahimi, Farhad Shahraki, Mortaza Zivdar

Tamkang Journal of Science and Engineering Volume: (9) 265 - 278

2005

51. CFD Simulations of Pressure Drop in KATAPAK-S Structured Packing

Mortaza Zivdar, Rahbar Rahimi, ,

Iranian Journal of Chemical Engineering Volume: () -

1997

52. The Effect of Superficial Feed Velocity on the Column Flotation Recovery in Comparison with the Conventional Flotation cells

Rahbar Rahimi, Majid Tahmooresi

Volume: (16) 40 - 47

Conferences Papers

2019

1. Hydrodynamic Analysis of Three-phase Industrial Boot Separator

Zohreh Khalifat, Mortaza Zivdar, Rahbar Rahimi

2018

2. CFD Study of 11 Diethoxy Butane Production in a Reactive Distillation Column

The 10th International Chemical Engineering Congress and Exhibition.

Maryam Mazarei sotoodeh, Mortaza Zivdar, Rahbar Rahimi

3. Experimental and CFD investigation for predicting weeping from sieve trays of Divided Wall Column

2nd International Biennial Oil, Gas and Petrochemical Conference

, Rahbar Rahimi, Mortaza Zivdar

4. Effects of flow direction on a sieve tray of Divided Wall Column

2nd International Biennial Oil, Gas and Petrochemical Conference

2007

5. Hydrodynamics of bubbling fluidized bed by computational fluid dynamics

5th International Chemical Engineering Cingress Exihibition

, Rahbar Rahimi, Mortaza Zivdar

6. Effects of gomerical characteristics on dry pressure drop of the columns using cfd analysis

Proceeding of the international conference on cleaner technologies and environmental management pec

, Mortaza Zivdar, Rahbar Rahimi,

7. Comparison hydraulics and flow patterns of sieve and d mini-grid valve tray using cfd

8. hydrodynamics comparison of bubbling fluidized bed contain geldart a and b by cfd

, Rahbar Rahimi, Mortaza Zivdar, Abdolreza Samimi

2006

9. Prediction of temperature and concentration distributions of distillation sieve trays by CFD

Distillation and Absorption UK2006

Rahbar Rahimi, , Farhad Shahraki, Mortaza Zivdar

10. Transient flow simulation of liguid recirculation and aaxial velocity in two phase bubble column reactord by CFD

CHISA 2006

Rahbar Rahimi, , Mortaza Zivdar, , Farhad Shahraki

11. Efficiency of sieve tray distillation columns by CFD simulation

CHISA 2006

Rahbar Rahimi, , Mortaza Zivdar

12. Three dimensional two-fluid CFD simulations of hydrodynamics energy and mass transfer of sieve tray distillation columns

CHISA 2006

Rahbar Rahimi, , Farhad Shahraki, Mortaza Zivdar

13. Transient Flow Simulation of Liquid Recirculation and Axial Velocity in two Phases Cylinderical Bubble Column Reactors by CRD Analysis

CHISA 2006

Rahbar Rahimi, , Mortaza Zivdar, Farhad Shahraki,

14. Invistigation of gas distribution in packed columns by CFD simulation

CHISA 2006

Mortaza Zivdar, Rahbar Rahimi, ,

15. Liquid Film Thickness Delermination in the Strutured Packings Using CFD simulation

SSCHEO 2006

Mortaza Zivdar, Rahbar Rahimi, ,

2005

16. Prediction of effluent products temperature from mixed reactors of methane chlorination

Rahbar Rahimi, , Farhad Shahraki, Mortaza Zivdar

17. Fluid dynamics simulation of baffle stirred column reactor hydrodynamics with sliding mesh

Rahbar Rahimi, , Mortaza Zivdar, Farhad Shahraki

18. Efficiencies of sieve tray distilation columns by CFD simulation

Rahbar Rahimi, , Farhad Shahraki, Mortaza Zivdar

19. CFD simulation of Gas-Liguid Dynamic and Axial Liquid Velocity in Two Phase Cylindrical Bubble Column Reactor

Rahbar Rahimi, , Mortaza Zivdar, Farhad Shahraki

20. Concenteration and Temperature Distribution of Sieve Tray Distillation Columns Using CFD Simulation

Rahbar Rahimi, , Farhad Shahraki, Mortaza Zivdar

21. CDF Study of the Effect of Vapour Maldistributions on the Hydrodynamicsof Sieve Trays

Metro Torento Convection Center

Rahbar Rahimi, Farhad Shahraki, Mortaza Zivdar

2004

22. CFD Simulation of Bubble Column Reactor Hydrodynamics

Rahbar Rahimi, Mortaza Zivdar

Research Project

2003

1. Study of Mica Processing

Rahbar Rahimi - 2003

2002

2. Modeling and simulation of spinning cone columns for production of food flavors

Mortaza Zivdar, Rahbar Rahimi - 2002