

Roohollah Rafee
 Associate Professor
 Faculty of Mechanical Engineering,
 Semnan University, Semnan, Iran.
 e-mail: rafee@semnan.ac.ir
 Phone: (+98)2331533351
 Website: <http://rafee.profile.semnan.ac.ir>



Research Interests:

Fluid Mechanics, Heat transfer, Multiphase Flows, Flow Measurements

Educations:

- Ph.D. in Mechanical Engineering, Amirkabir University of Technology, Tehran, Iran, 2010.
- M.Sc. Degree in Mechanical Engineering, Amirkabir University of Technology, Tehran, Iran, 2004.
- B.Sc. Degree in Mechanical Engineering, Tehran University, Tehran, Iran, 2002

Publications

Title	Citations	Year
Enhancing heat transfer in microchannel heat sinks using converging flow passages M Dehghan, M Daneshipour, MS Valipour, R Rafee, S Saedodin Energy Conversion and Management 92, 244-250	70	2015
Numerical simulations of airflow and droplet transport in a wave-plate mist eliminator R Rafee, H Rahimzadeh, G Ahmadi Chemical Engineering Research and Design 88 (10), 1393-1404	41	2010
Impact of nanoparticle mean diameter and the buoyancy force on laminar mixed convection nanofluid flow in an elliptic duct employing two phase mixture model M Shariat, RM Moghari, A Akbarinia, R Rafee, SM Sajjadi International Communications in Heat and Mass Transfer 50, 15-24	18	2014
Numerical Study of Pressure Drop and Thermal Characteristics of Al₂O₃-Water Nanofluid Flow in Horizontal Annuli R Mokhtari Moghari, F Talebi, R Rafee, M Shariat Heat Transfer Engineering 36 (2), 166-177	16	2015
Performance evaluation of a curved type vane separator at different plate spacings in the range of 25 to 35mm using numerical simulation R Rafee, H Rahimzadeh Iranian Journal of Chemistry and Chemical Engineering (IJCCE) 29 (3), 95-108	16	2010

<u>Determination of minimum pressure drop at different plate spacings and air velocity in a wave-plate mist eliminator</u>	<u>11</u>	2012
SA Banitabaei, H Rahimzadeh, R Rafee Asia-Pacific Journal of Chemical Engineering 7 (4), 590-597		
<u>Nanofluids as the circuit fluids of the geothermal borehole heat exchangers</u>	<u>10</u>	2017
M Daneshpour, R Rafee International Communications in Heat and Mass Transfer 81, 34-41		
<u>Effect of drainage channel dimensions on the performance of wave-plate mist eliminators</u>	<u>10</u>	2013
MH Hamed Estakhrsar, R Rafee Korean Journal of Chemical Engineering 30 (6), 1301-1311		
<u>Entropy generation calculation for laminar fully developed forced flow and heat transfer of nanofluids inside annuli</u>	<u>6</u>	2014
Rafee, Roohollah Journal of Heat and Mass Transfer Research 1 (1), 25-33		
<u>Geometric optimization of an enhanced microchannel heat sink with superhydrophobic walls</u>	<u>5</u>	2018
H Ermagan, R Rafee Applied Thermal Engineering 130, 384-394		
<u>Effects of wavelength and number of bends on the performance of zigzag demisters with drainage channels</u>	<u>5</u>	2016
MHH Estakhrsar, R Rafee Applied Mathematical Modelling 40 (2), 685-699		
<u>Effects of Rib Shapes on Heat Transfer Characteristics of Turbulent Flow of Al₂O₃-Water Nanofluid inside Ribbed Tubes</u>	<u>5</u>	2015
K Mohebbi, R Rafee, F Talebi Iranian Journal of Chemistry and Chemical Engineering 34 (3), 61-77		
<u>A new method for constructing the coefficients of pressure correction equation for colocated unstructured grids</u>	<u>3</u>	2009
R Rafee, H Rahimzadeh American Journal of Applied Sciences 6 (1), 93		
<u>Effects of the rectangular groove dimensions on the thermal features of the turbulent Al₂O₃-water nanofluid flow in the grooved tubes</u>	<u>2</u>	2015
K Mohebbi, R Rafee, F Talebi Journal of Heat and Mass Transfer Research (JHMTR) 2 (1), 59-70		
<u>Numerical study on dispersion and deposition of nano and micro spherical particles in turbulent incompressible gas flow inside a channel with artificial roughness</u>	<u>2</u>	2015
Y Hemmati, R Rafee Modares Mechanical Engineering 15 (8), 105-115		
<u>Experimental study of viscosity effects on a pump as turbine performance</u>	<u>1</u>	2018
S Abazariyan, R Rafee, S Derakhshan		

Renewable Energy 127, 539-547

[Effect of pumping power on the thermal design of converging microchannels with superhydrophobic walls](#) 1 2018
H Ermagan, R Rafee
International Journal of Thermal Sciences 132, 104-116

[Computational fluid dynamics simulation of the flow patterns and performance of conventional and dual-cone gas-particle cyclones](#) 1 2018
SM Vahedi, F Parvaz, R Rafee, M Khandan Bakavoli
Journal of Heat and Mass Transfer Research (JHMTR) 5 (1), 27-38

[Effects of convergence of the superhydrophobic walls on the performance of microchannels as heat sinks](#) 1 2017
H Ermagan, R Rafee
Modares Mechanical Engineering 17 (07), 49-58

[Transient numerical simulation of the coaxial borehole heat exchanger with the different diameters ratio](#) 2019
S Iry, R Rafee
Geothermics 77, 158-165

[Numerical investigation into the thermo-fluid performance of wavy microchannels with superhydrophobic walls](#) 2018
H Ermagan, R Rafee
International Journal of Thermal Sciences 132, 578-588

[Numerical and Experimental Investigations on Aerodynamic Behavior of the Ahmed Body Model with Different Diffuser Angles.](#) 2018
P Moghimi, R Rafee
Journal of Applied Fluid Mechanics 11 (4)

[Effects of the shape and height of artificial 2D roughness elements on deposition of nano and microparticles in the turbulent gas flow inside a horizontal channel](#) 2018
Y Hemmati, R Rafee
Journal of Aerosol Science 122, 45-58

[Effects of the Outlet Pipe Diameter on the Performance of Aerocyclone in Gas Droplet Two-Phase Flow](#) 2018
F Parvaz, R Rafee, F Talebi
Mechanical Engineering Journal of Tabriz University 48 (2), 45-53

[Numerical and Experimental Study of the Gradually and Rapidly Varied Flow over a Wedge-shaped Bed in Open Channel](#) 2018
A Saeedi, E Ghouschi, R Rafee
Mechanical Engineering Journal of Tabriz University 47 (4), 159-166

[Effect of Blade Design Parameters on Air Flow through an Axial Fan](#) 2017
N Rajabi, R Rafee, S Frazam-Alipour
International Journal of Engineering (IJE) 30 (10), 1583-1591

[Determination of diameter ratios for minimum entropy generation in a borehole geothermal heat exchanger using numerical simulation of flow and heat transfer](#) 2016

- M daneshipour, r rafee
Journal of solid and fluid mechanics 6 (1), 249-258
[Second law analysis of nanofluid laminar flow in a counter-flow heat exchanger](#) 2015
K KAMANI, R RAFEE
JOURNAL OF MODELING IN ENGINEERING 13 (41), 47-57
[Investigation on Heat Losses In Green Building; Suitable Equipments Selection](#) 2014
M Roshanaei, R Rafee
22nd Annual International Mechanical Engineering Conference (ISME 2015)
[Introduction, Design, Construction and Research on Water Pumping Systems without the use of Electric Motors in Hydropower Dams](#) 2014
E Rashidi, R Rafee
22nd Annual International Conference on Mechanical Engineering (ISME 2014)
[Economic Feasibility Study of Green Building in Iran](#) 2014
M Roshanaei, R Rafee
22nd Annual International Mechanical Engineering Conference (ISME 2015)
[Entropy Generation Calculation for Turbulent Fully Developed Forced Flow and Heat Transfer of Nanofluids inside Annuli](#) 2014
A Bakhtiari, R Rafee
2nd Iranian Conference on Heat and Mass Transfer
[Numerical Investigation on Effective Parameters of Eddy Interaction Model for Performance Prediction of Simple Zigzag Drift Eliminators](#) 2012
MH Hamed Estakharsar, R Rafee
Journal of Modeling in Engineering 31, 69-84
[Experimental Study on the Performance of a Solar Humidification Dehumidification Desalination System](#) 2007
H Rahimzadeh, R Rafee, A Ghareghani
15th Annual Conference of Mechanical Engineering (ISME 2007)
[A Three Dimensional Numerical Simulation of Turbulent Incompressible Flow in a Spiral Channel](#) 2006
MR Heirani Nobari, R Rafee, E Damangir
Aerospace Mechanics Journal 2 (1), 0-0
تحليل از مایشگاهی اثر سرعت دورانی بر روی کارکرد پمپ معکوس
سینا ابادریان ، روح الله رفعی ، شهرام درخشان
ISME2017-2027
بررسی عملکرد گرمایی میکروکانالهای موازی و همگرا با دیواره های فوق آبگریز در
مقادیر مختلف توان پمپاژ
حمیدرضا ارمگان ، روح اله رفعی
ISME2017-2373 بیست و پنجمین کنفرانس سالانه بین المللی مهندسی مکانیک ایران.