

علی اکبر عباسیان آرانی

استاد

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گروه: مهندسی مکانیک - حرارت و سیالات



سوابق تحصیلی			
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کارشناسی	۱۳۷۰	مهندسی مکانیک - حرارت و سیالات	صنعتی شریف (ایران)
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مقالات در همایش ها

-
1. ABBAS BEHZADI ,Thermal and Draft Calculation for Optimization of Existing CRU Heaters by Modification in Common Duct Considering Energy saving ,The 32th Annual International Conference of Iranian Society of Mechanical Engineers ,1 - ارک , 09 05 2024 .
 2. Ali Akbar ABBASIAN ARANI, Jafar AMANI, and Mohammad HEMMAT ASFEH ,Effects of inclination angle of horizontal wall on natural convection in enclosures ,3th.Annual Iranian Mechanical Engineering Conference, NCME2010 ,Faculty of Engineering, Islamic Azad University, Khomeinishahr, Iran ,November 2010
 3. Ali Akbar ABBASIAN ARANI, Jafar AMANI, and Mohammad HEMMAT ASFEH ,Numerical study of natural convection heat transfer in a cavity at variable angle of inclination ,3th.Annual Iranian Mechanical Engineering Conference, NCME2010 ,Faculty of Engineering, Islamic Azad University, Khomeinishahr, Iran ,November 2010
 4. Ali Akbar ABBASIAN ARANI, Jafar AMANI, and Mohammad HEMMAT ASFEH ,Numerical study of inclination angle of top wall on flow field and temperature in trapezoidal enclosure ,3th.Annual Iranian Mechanical Engineering Conference, NCME2010 ,Faculty of Engineering, Islamic Azad University, Khomeinishahr, Iran ,November 2010
 5. Ali Akbar ABBASIAN ARANI, Miesame AMINI, Mostafa MAHMOODI, and Mohammad Hassan KASHIHA ,Numerical study of natural convective heat transfer in square cavity with two vertical cold wall and hot source at variable position ,2nd National Iranian Mechanical Engineering Conference, NCME2009 ,Faculty of Engineering, Islamic Azad University, Khomeinishahr, Iran ,November 2009
 6. Ali Akbar ABBASIAN ARANI, A.H. Niroumand, H. Teimouri, A.Z. Maghsoudi ,STUDY OF NANOFUID LAMINAR FORCED CONVECTION IN A HORIZONTAL CHANNEL WITH HOT PROTRUDING BAFFLES ON TOP AND BOTTOM WALL ,13th International Conference on Diffusion in Solids and Liquids, DSL2010 ,The University of Birjand, Birjand, Iran ,May, 01-03
 7. Ali Akbar ABBASIAN ARANI, Arash Ardeshiri, Amir Hossien Niroumand, H. Teimouri ,Optimization of heat source location inside a lid driven square cavity filled with nanofluid and

- variable property ,14th Conference on Fluid Dynamics, FD2012 ,The University of Birjand, Birjand, Iran ,May, 01-03
- Ali Akbar ABBASIAN ARANI, and Mohammad HEMMAT ASFEH ,Natural convection around a .8 heated round cylinder in square cavity filled with nanofluid ,14th Conference on Fluid Dynamics, .FD2012 ,The University of Birjand, Birjand, Iran ,May, 01-03
- Ali Akbar ABBASIAN ARANI, Azita AHMADI and Didier LASSEUX ,Numerical investigation on .9 correction to Darcy's law for inertial regime ,16th. Annual (International) Conference on Mechanical Engineering-ISME2008 ,Shahid Bahonar University of Kerman, Kerman, Iran ,May .14-16 2008
- Ali Akbar ABBASIAN ARANI, Didier LASSEUX and Azita AHMADI ,Resolution Numerique de .10 l'Écoulement Diphasique en Milieux Poreux Heterogene incluant les effets inertiels ,Colloque .Franco-Tunisien, Les Milieux Poreux, CFT07 ,Sousse, Tunisia ,Avril13-15, 2007
- Ali Akbar ABBASIAN ARANI, Azita AHMADI and Didier LASSEUX ,Numerical study of inertial .11 regime in ordered and disordered porous media ,Annual (International) Conference Fluid .Dynamics, FD2009 ,Noushivani-e- Babol University of Technology, Babol, Iran ,Avril 26-29 2009
- Ali Akbar Abbasian Arani, Mehrdad Kazemi, Mohammad Adibi, Sajjad Mirzaei ,NUMERICAL .12 STUDY OF NATURAL CONVECTION AND ENTROPY GENERATION INSIDE CAVITY CONSIDERING OBLIQUE OBSTACLE ,17th Conference On Fluid Dynamics, fd2017 ,Shahrood University of .Technology, Shahrood, Iran ,Aug, 27-29
- Ali Akbar Abbasian Arani, Mohammad Adibi, Masih Shekaramiz, Mehrdad Kazemi, Sajjad .13 Mirzaei ,NUMERICAL INVESTIGATION ON FLOW CHARACTERISTICS OF RIB-GROOVED TWISTED TAPE CHANNEL FIELDED WITH $Mg(OH)_2$ -ETHYLENE GLYCOL ,17th Conference On Fluid .Dynamics, fd2017 ,Shahrood University of Technology, Shahrood, Iran ,Aug, 27-29
- Ali Akbar Abbasian Arani, Sajjad Mirzaei, Mehrdad Kazemi, Mohammad Adibi ,HYDRAULIC .14 AND THERMAL CHARACTERISTIC EFFECT OF CIRCULAR TRIANGULAR CORRUGATED BAFFLE ON FLUID FLOW AND HEAT TRANSFER IN SHELL AND TUBE HEAT EXCHANGER ,17th Conference On Fluid Dynamics, fd2017 ,Shahrood University of Technology, Shahrood, Iran ,Aug, .27-29
- Ali Akbar ABBASIAN ARANI, Jafar AMANI, and Mohammad HEMMAT ASFEH ,Numerical .15 study of natural convection in inclined trapezoidal enclosure utilizing Cu-water Nanofluid ,1st Iranian Thermal Science Conference, ITSC2011 ,Faculty of Engineering, Islamic Azad University, .Mashhad, Iran ,8-9 February, 2011
- Ali Akbar ABBASIAN ARANI, Jafar AMANI, and Mohammad HEMMAT ASFEH ,Numerical .16 study of effect of heat source location on natural convection in inclined square cavity ,1st Iranian Thermal Science Conference, ITSC2011 ,Faculty of Engineering, Islamic Azad University, .Mashhad, Iran ,8-9 February, 2011
- Ali Akbar ABBASIAN ARANI, Jafar AMANI, and Mohammad HEMMAT ASFEH ,Effect of .17 inclination on natural convection in square cavity ,1st Iranian Thermal Science Conference, .ITSC2011 ,Faculty of Engineering, Islamic Azad University, Mashhad, Iran ,8-9 February, 2011
- Ali Akbar ABBASIAN ARANI, Jafar AMANI, and Mohammad HEMMAT ASFEH ,Optimization of .18 heat transfer coefficient of constant length hot baffle in square cavity ,1st Iranian Thermal Science Conference, ITSC2011 ,Faculty of Engineering, Islamic Azad University, Mashhad, Iran .,8-9 February, 2011
- G. A. Sheikhzadeh, M. Aliakbari MiyanMahaleh, A.A. Abbasian Arani and S. Mazrouei Sebdani .19 ,Numerical Study of Magnetic Field Effects on Flow Field and Heat Transfer in a Cavity Filled with Porous Materials ,19th International Conference on Magnetism ICM2012 ,Busan, Korea ,8-12 .June 2012
- Lasseux, D., Abbasian Arani, A.A. and Ahmadi, A. ,An investigation of inertial one-phase flow .20 .in homogeneous model porous media ,MAMERN 2009 ,Pau, France ,8-11 June 2009
- Ali Akbar Abbasian Arani, Alireza Aghaei, Ahmad Ababaei ,Numerical Study of Micro mixer .21

- effect on fluid flow and heat transfer inside microchannel in force convection regime ,The 6st National conference on CFD Application in Chemical and Petroleum Industries ,Isfahan .Univerdity of Technology, Isfahan, Iran ,8 May 2015
- A.A. Abbassian Arani, J. Amani ,Experimental Study on Diameter Effect of Nanoparticles on .22 Heat Transfer and Pressure Drop of Lean TiO₂-Water Nanofluid ,International Congress on .Nanoscience & Nanotechnology (ICNN2012) ,Kashan, I. R. Iran ,8 - 10 September 2012
- J. Amani, A.A. Abbassian Arani ,Experimental Study on Diameter Effect of TiO₂ .23 Nanoparticles on Heat Transfer and Pressure Drop of Aqua Nanofluid ,International Congress on .Nanoscience & Nanotechnology (ICNN2012) ,Kashan, I. R. Iran ,8 - 10 September 2012
- A.A. Abbasian Arani, M. Naderi Beni, S. Nazari ,Effects of the Step Heights and Different .24 Nanofluids on Laminar Forced Convection Flow in a Backward Facing Step ,International Congress on Nanoscience & Nanotechnology (ICNN2012) ,Kashan, I. R. Iran ,8 - 10 September .2012
- A. Ardeshti, A.A. Abbasian Arani, A.H. Niroumand ,OPTIMAL LOCATION of HEAT SOURCES .25 on a VERTICAL WALL of a LID-DRIVEN CAVITY FILLED with AL₂O₃-WATER NANOFLUID ,International Congress on Nanoscience & Nanotechnology (ICNN2012) ,Kashan, I. R. Iran ,8 - 10 .September 2012
- Ali Akbar Abbasian Arani, M. Hajezadeh, M. Abbaszadeh ,Numerical Study of Natural .26 convection in rectangular cavity with sinusoid wall temperature ,21th Annual International Conference on Mechanical Engineering-ISME2013 ,Mechanical Eng. Department, K-N Toosi .University, Tehran, Iran ,7-9 May, 2013
- Ali Akbar Abbasian Arani, A. Ghadiriyan, S. P. Ghafarzadegan ,Numerical Comparison of .27 Newtonian and Non-Newtonian Mixed convection flow of Al₂O₃ nanofluid in lid driven Cavity ,21th Annual International Conference on Mechanical Engineering-ISME2013 ,Mechanical Eng. .Department, K-N Toosi University, Tehran, Iran ,7-9 May, 2013
- Ali Akbar ABBASIAN ARANI, Mostafa Mahmoodi ,Free convection in a nonofluid filled square .28 cavity with a horizontal heated plate ,12th International Conference on Diffusion in Solids and .Liquids, DSL2010 ,Paris, France ,5-7 July
- Ali Akbar ABBASIAN ARANI, Majid Dehghany ,Numerical comparison of two and three .29 dimensional flow regimes in porous media ,12th International Conference on Diffusion in Solids .and Liquids, DSL2010 ,Paris, France ,5-7 July
- Ali Akbar Abbasian Arani, Mohammadamin Atarzadehm, Behnam Habibnejad Deldari .30 ,Numerical analysis of turbulent characteristics water/aluminum oxide in horizontal U-tube ,The 27th Annual International Conference of Iranian Society of Mechanical Engineers-ISME2019 .,Tehran, Iran ,30 April- 2 May, 2019
- Ali Akbar Abbasian Arani, Syead Shahab Hodaei ,Analysis of thermal performance of spiral .31 heat exchanger using nanofluid as cooling fluid ,The 27th Annual International Conference of .Iranian Society of Mechanical Engineers-ISME2019 ,Tehran, Iran ,30 April- 2 May, 2019
- Ali Akbar Abbasian Arani, Mehrdad Kazemi ,Numerical Investigation of Mixed Convection .32 inside Wavy wall Inclined Open Cavity ,The 27th Annual International Conference of Iranian .Society of Mechanical Engineers-ISME2019 ,Tehran, Iran ,30 April- 2 May, 2019
- Ali Akbar Abbasian Arani, Mohammad Hemmat Esfe ,Effect of nanofluid on natural .33 convection fluid flow and heat transfer in an enclosure containing a heated circular cylinder ,15th .Iranian Physical Chemistry Conference ,University of Tehran, Tehran, Iran ,3-6 September 2012
- Ghanbarali SHEIKHZADEH, Ali Akbar ABBASIAN ARANI, Abolfazl FATTAHI and Bagher .34 Parsaee ,NUMERICAL STUDY OF CROSS SECTION AND SHAPE EFFECT OF CYLINDRICAL BODY ON FLOW FIELD AND HEAT TRANSFER LOCATED IN TWO DIMENSIONSL RECTANGULAR DUCT OF HEAT EXCHANGER ,2th International Conference on Heat Exchanger in Oil and Energy .Industry, ICHEOEI2 ,Tehran, Iran ,29-30 November
- A.A. Abbassian Arani, J. Amani ,Numerical Study on the Effect of Nanoparticles Mean .35

- Diameter on Natural Convection of Nanofluid in an Enclosure ,International Conference on .Modern Application on Nanotechnology ,Minsk, Belarus ,27-29 June 2012
- A.A. Abbassian Arani, J. Amani ,Numerical Investigation of Nanoparticles Mean Diameter on .36 Mixed Convection of Nanofluid in an Enclosure ,International Conference on Modern Application .on Nanotechnology ,Minsk, Belarus ,27-29 June 2012
- A.A. Abbassian Arani, J. Amani ,Numerical Study on the Effect of Nanoparticles Mean .37 Diameter on Natural Convection of Nanofluid in an Enclosure ,International Conference on .Modern Application on Nanotechnology ,Minsk, Belarus ,27-29 June 2012
- Ali Akbar ABBASIAN ARANI, Ehsan ROOHI ,Natural convection in a nanofluid-filled square .38 cavity with an arc shaped heated baffle ,13th International Conference on Diffusion in Solids and .Liquids, DSL2010 ,Algarve, Pourtaghal ,26-31 July
- Ali Akbar Abbasian Arani, Saeed Khandan Siar, Behnam Ghadimi, GanbarAli Sheikhzadeh .39 ,NUMERICAL INVESTIGATION OF NANOFUIDS SWIRAL FLOW IN CIRCULAR TUBE EQUIPPED WITH TWISTED TAPE ,The 4th International Conference on Nuclear and Renewable Energy .Resources (NURER2014) ,Antalya, Turkey ,26-29 October 2014
- Ali Akbar Abbasian Arani, Saeed Afshar, Alireza Aghaee ,Comparison of Mixed convection .40 flow field and Heat transfer of Nanofluid and composite Nanofluid ,24th Annual International .Conference on Mechanical Engineering-ISME2016 ,Yazd University, Yazd, Iran ,26-28 April, 2016
- Ali Akbar Abbasian Arani, Ehsan Noori Yazdeli ,Flow field and heat transfer inside rectangular .41 channel filled with Alumina-water nanofluid equipped with four baffles ,24th Annual International .Conference on Mechanical Engineering-ISME2016 ,Yazd University, Yazd, Iran ,26-28 April, 2016
- Ali Akbar Abbasian Arani, Mojtaba Sepehrnia ,Numerical investigation on fluid flow and heat .42 transfer of Alumina-water nanofluid inside ribbed channels in Turbulent flow regime ,24th Annual International Conference on Mechanical Engineering-ISME2016 ,Yazd University, Yazd, Iran ,26-28 .April, 2016
- Ali Akbar ABBASIAN ARANI, Didier LASSEUX and Azita AHMADI ,Simulation numérique .43 d'écoulement diphasique inertiel en milieu poreux hétérogène ,JEMP2005 ,Bordeaux, France .,26-27 Octobre 2005
- A.A. Abbasian, G.A. Sheikhzadeh, N. Hajjaligol, R. Heidary, M. Ebrahim Qomi ,Effect of aspect .44 ratio on entropy generation in two sided lid-driven enclosure using variable properties ,8th International Conference on Diffusion in Solids and Liquids-DSL2012 ,Istanbul, Turkey ,25-29 .June 2012
- Ali Akbar Abbasian Arani, Mojtaba Sepehrnia ,Numerical study on fin and micro channel .45 effects on heat sink fluid flow and heat transfer ,The 26th Annual International Conference of Iranian Society of Mechanical Engineers-SME2018 ,School of Mechanical Engineering, Semnan .University, Semnan, Iran ,24-26 April, 2018
- Ali Akbar Abbasian Arani, Alireza Moradi, Sivosh Gholami ,Numerical investigation on .46 grooved parabolic solar collector performance in turbulent flow filled with nanofluid ,The 26th Annual International Conference of Iranian Society of Mechanical Engineers-SME2018 ,School of .Mechanical Engineering, Semnan University, Semnan, Iran ,24-26 April, 2018
- Ali Akbar Abbasian Arani, Mojtaba Sepehrnia ,Three dimensional numerical simulation of .47 finned micro channel heat sink using nanofluid ,The 26th Annual International Conference of Iranian Society of Mechanical Engineers-SME2018 ,School of Mechanical Engineering, Semnan .University, Semnan, Iran ,24-26 April, 2018
- Ali Akbar Abbasian Arani, Alireza Moradi, Sivosh Gholami ,Numerical Study of using .48 nanofluid on wavy fin equipped with elliptical tube performance ,The 26th Annual International Conference of Iranian Society of Mechanical Engineers-SME2018 ,School of Mechanical .Engineering, Semnan University, Semnan, Iran ,24-26 April, 2018
- Lasseux, D., Ahmadi, A., Abbasian Arani, A.A. ,Correction tensorielle à la loi de Darcy en .49 régime inertiel ,Journées d'Etudes sur les Milieux Poreux ,Lyon, France ,24-25 octobre, 2007

- Hossein KHORASANIZADEH, Ali Akbar ABBASIAN ARANI and Majid NIKFAR ,CALCULATION .50
AND COMPARISON OF CONSUMPTION ENERGY BY TWO SYSTEM, RADIANT FLOOR HEATING
AND RADIATOR ,3th International Conference on Heating, Ventilating, and Air Conditioning,
.ICHVAC3 ,Tehran, Iran ,23-25 May
- Ali Akbar ABBASIAN ARANI, Jafar AMANI, and Mohammad HEMMAT ASFEH ,NUMERICAL .51
INVESTIGATION OF NANOFLUID MIXED CONVECTION IN A LID-DRIVEN CAVITY ,7th
International Conference on Computational Heat and Mass Transfer, IccHmt2011 ,Istanbul,
.Turkey ,22-27 July
- Ali Akbar Abbasian Arani, Sara Beheshti Lashkariani ,Non-certainty effect of thermo-physical .52
properties on convection fluid flow and heat transfer in triangular cavity ,23th Annual
International Conference on Mechanical Engineering-ISME2015 ,University of Technology,
.Department of Mechanical Engineering, Tehran, Iran ,22-24 May 2015
- Ali Akbar Abbasian Arani, Arash Ardeshiri, Mahmoud Abbaszadeh ,Optimization of combined .53
convection heat transfer in cavity with discrete heat source filled with Nanofluids ,23th Annual
International Conference on Mechanical Engineering-ISME2015 ,Amirkabir University of
.Technology, Department of Mechanical Engineering, Tehran, Iran ,22-24 May 2015
- Ali Akbar Abbasian Arani, Mostafa Papi ,Mixed convection of nanofluid flow and heat .54
transfer in horizontal channel with two baffles with variable properties ,22th Annual International
Conference on Mechanical Engineering-ISME2014 ,Shahid Chamran University of Ahwaz,
.Department of Mechanical Engineering ,22-24 April 2014
- Ali Akbar Abbasian Arani, Hamidreza Ehteram, Alireza Aghaei ,Brownian motion effect on .55
forced convection flow and heat transfer of nanofluid flow with two baffles with variable
properties ,22th Annual International Conference on Mechanical Engineering-ISME2014 ,Shahid
.Chamran University of Ahwaz, Department of Mechanical Engineering ,22-24 April 2014
- Alireza Naderi Qhomi, Ali Akbar Abbasian Arani ,Numerical study of fluid flow inside vortex .56
tube and cone valve angle effect on its performance ,22th Annual International Conference on
Mechanical Engineering-ISME2014 ,Shahid Chamran University of Ahwaz, Department of
.Mechanical Engineering ,22-24 April 2014
- Ali Akbar Abbasian Arani, Mahmoud Ahmadi, Milad Khorami ,Forced convection of flow and .57
heat transfer of nanofluid in a offset strip fin microchannel ,22th Annual International
Conference on Mechanical Engineering-ISME2014 ,Shahid Chamran University of Ahwaz,
.Department of Mechanical Engineering ,22-24 April 2014
- Ali Akbar ABBASIAN ARANI, Azita AHMADI and Didier LASSEUX ,Dérivation d'un modèle .58
macroscopique d'écoulement diphasique non-Darcien en milieu poreux homogène ,JEMP2009
.Paris, France ,21-22 Octobre 2009
- Ali Akbar ABBASIAN ARANI, Azita AHMADI and Didier LASSEUX ,Etude numérique des .59
écoulements diphasiques inertiels en milieu poreux homogène ,JEMP2009 ,Paris, France ,21-22
.Octobre 2009
- Ali Akbar ABBASIAN ARANI, Mohammad Hussein Sharif ,Numerical study on the correction .60
to Darcy's law in anisotropic porous media ,13th. Annual (International) Conference Fluid
.Dynamics, FD2010 ,Shiraz, Iran ,2010
- Ali Akbar ABBASIAN ARANI, Reza Jamali ,Numerical study of combined natural convection .61
and radiation heat transfer in a rectangular cavity having a circular body at its center ,13th.
.Annual (International) Conference Fluid Dynamics, FD2010 ,Shiraz, Iran ,2010
- Ali Akbar ABBASIAN ARANI, Didier LASSEUX and Azita AHMADI ,Simulation Numérique .62
d'Écoulement Diphasique Inertiel en Milieux Poreux Hétérogène ,17th Congrés Français de
.Mécanique ,Troyes, France ,2005
- Ali Akbar Abbasian Arani, Mehrdad Kazemi, Seyejad Sajad Mirzaee ,Natural convection heat .63
transfer investigation in wavy wall triangular enclosure ,The 25th Annual International
.Conference on Mechanical Engineering, ISME2017 ,Tehran, Iran ,2-4 May 2017

- Ali Akbar Abbasian Arani, Siavosh Gholami, Amir Arabi ,Numerical investigation on thermal .64 performance of wavy channel equipped with vortex generators fines filled with Carbon nano tube (CNT) –water nanofluid ,The 25th Annual International Conference on Mechanical Engineering, ISME2017 ,Tarbiat Modares University, Tehran, Iran ,2-4 May 2017
- Ali Akbar Abbasian Arani, Siavosh Gholami, Amir Arabi ,Numerical investigation on thermal .65 performance of wavy channel equipped with vortex generators fines ,The 25th Annual International Conference on Mechanical Engineering, ISME2017 ,Tarbiat Modares University, Tehran, Iran ,2-4 May 2017
- Ali Akbar Abbasian Arani, Mojtaba Sepehrnia ,Obstacle and double wall Carbon nano tube .66 (DWCNT)-water nanofluid effect on thermal and hydraulic characteristics of turbulent fluid flow inside channel ,The 25th Annual International Conference on Mechanical Engineering, ISME2017 ,Tarbiat Modares University, Tehran, Iran ,2-4 May 2017
- Soroush Sadripour, Seyed Sajad Mirzaee, Mehrdad Kazemi, Ali Akbar Abbasian Arani .67 ,Thermal and hydraulic characteristics of fluid flow inside corrugated channels with moving obstacles ,The 25th Annual International Conference on Mechanical Engineering, ISME2017 ,Tarbiat Modares University, Tehran, Iran ,2-4 May 2017
- Ali Akbar Abbasian Arani, Mehrdad Kazemi, Seyed Sajad Mirzaee ,Natural convection heat .68 transfer investigation in wavy wall enclosure ,The 25th Annual International Conference on Mechanical Engineering, ISME2017 ,Tarbiat Modares University, Tehran, Iran ,2-4 May 2017
- A. ABBASIAN and K. MAZAHERI ,Numerical solution of Euler Equations ,3rd Conferences of .69 Fluid Dynamics, FD1995, Sharif University of Technology, Tehran, I.R. Iran. ,pp. 1-13 ,Tehran ,1995
- Ali Akbar ABBASIAN ARANI, Pouyan Shahmohamadi ,Numerical study of fluid flow and heat .70 transfer over a rotating disk at arbitrary angle of inclination in laminar flow ,7th International Conference on Heat Transfer, Fluid Mechanics and Thermodynamics, HEFAT2010 ,Antalya, Turkey ,19-21 July
- Ali Akbar Abbasian Arani, Abdollah Nemati, Mohsen Pirzadeh ,Design and Optimization of .71 shell and tube heat exchanger for energy recovery in Bandar Abbas oil refinery using genetic algorithm ,1st International conference on Oil, Gas and petrochemical industries with focus on sustainable development ,Tehran, Iran ,19 February 2015
- Ali Akbar Abbasian Arani, Ramin Ehsani ,Simulation of flow over a circular cylinder by control .72 cylinder for reduced drag coefficient using the Lattice Boltzmann Method ,1st National conference on development of Civil Engineering, Architecture, Electricity and Mechanical in Iran ,Gorgan, Iran ,18 December 2014
- Ali Akbar Abbasian Arani, Javad Delafkar ,Mixed convection inside a lid-driven cavity with .73 vertical wall partial cooling and horizontal wall heating and variable properties ,15th Fluid Dynamics Conference, Faculty of Atmospheric-Oceanic Science and Technology ,University of Hormozgan, Bandar Abbas, Iran ,17-19 December 2013
- Ali Akbar Abbasian Arani, Hananeh Ghasemi ,Natural convection and Entropy generation of .74 Al₂O₃ –water nanofluids inside an L-shape cavity and variable properties ,15th Fluid Dynamics Conference, Faculty of Atmospheric-Oceanic Science and Technology ,University of Hormozgan, Bandar Abbas, Iran ,17-19 December 2013
- Ali Akbar Abbasian Arani, Alireza Malihi ,Mixed convection inside a triangular lid-driven Cavity .75 and sinusoidal wall boundary condition with variable properties ,15th Fluid Dynamics Conference, Faculty of Atmospheric-Oceanic Science and Technology ,University of Hormozgan, Bandar Abbas, Iran ,17-19 December 2013
- Ali Akbar Abbasian Arani, Alireza Naderi Ghomi ,Mixed convection of Al₂O₃ –water .76 nanofluids with a central heat source inside and vertical heat sink on wall and variable properties ,15th Fluid Dynamics Conference, Faculty of Atmospheric-Oceanic Science and Technology ,University of Hormozgan, Bandar Abbas, Iran ,17-19 December 2013

- Ali Akbar Abbasian Arani, Saeed Mazrouei Sebdani, Mostafa Mahmoodi ,Mixed Convection of .77
Nanofluid in a Cavity with Moving Sidewalls and Sinusoidal Heated Bottom Wall ,20th Annual
International Conference on Mechanical Engineering-ISME2012 ,School of Mechanical Eng.,
.Shiraz University, Shiraz, Iran ,16-18 May, 2012
- Ali Akbar ABBASIAN ARANI, Jafar Amani, Arash Ardeshiri ,Investigation of diameter effect on .78
natural convection inside square cavity filled with nanofluid ,20th Annual International
Conference on Mechanical Engineering-ISME2012 ,School of Mechanical Eng., Shiraz University,
.Shiraz, Iran ,16-18 May, 2012
- Didier LASSEUX, Azita AHMADI and Ali Akbar ABBASIAN ARANI ,Analysis of the role of .79
structural disorder on the inertial correction to Darcy's law ,2010 InterPore Conference and
.Annual Meeting ,Texas A&M University, USA ,14-17 March 2010
- Ali Behnampour, Ali Marzban, Omid Aliakbari, Ali Akbar Abbasian Arani ,Ribs shape effect on .80
hydrodynamics behavior of water-AgO inside two-dimensional microchannel ,1st International
Conference on Mechanical and Aerospace Engineering, Mechaero2016 ,University of Tehran,
.Tehran, Iran ,14 April, 2016
- Ahmadi, A., Abbasian Arani, A.A., and Lasseux, D. ,Two-phase non-Darcy flow in .81
heterogeneous porous media: A numerical investigation ,Premièrres Journées scientifiques du
Laboratoire Euro-Maghrébin de Mathématiques et de leurs Interactions (LEM2I), Conférence
.invitée Plénière ,Tipaza, Algérie ,13-22 Juin 2010
- Mohsen Salehi, Ali Akbar Abbasian Arani, Mikaeil Shapori Arani, Abolfazl Hosseini ,Effect of .82
different flow rates on linear parabolic collector efficiency ,6th Annual Conference on Clean
.Efficient and Renewable Energy ,Tehran, Iran ,13 November 2014
- Mohsen Salehi, Ali Akbar Abbasian Arani, Mikaeil Shapori Arani, Ahmad Pasandidehfard .83
,Evaluation of the efficiency and the accuracy of the linear parabolic collector outlet temperature
on the solar tracker ,6th Annual Conference on Clean Efficient and Renewable Energy ,Tehran,
.Iran ,13 November 2014
- Mohsen Salehi, Ali Akbar Abbasian Arani, Mikaeil Shapori Arani, Shahrap Hosseini .84
Chaleshtari ,Design, construction and testing of a parabolic solar collector ,6th Annual
.Conference on Clean Efficient and Renewable Energy ,Tehran, Iran ,13 November 2014
- Ali Akbar ABBASIAN ARANI, Didier LASSEUX and Azita AHMADI ,A numerical analysis of the .85
inertial correction to Darcy's law ,Interpore conference ,Fraunhofer ITWM Kaiserslautern
.Fraunhofer-Platz 1 Kaiserslautern, Germany ,11-14 March 2009
- Ali Akbar ABBASIAN ARANI, Didier LASSEUX and Azita AHMADI ,Derivation of a macroscopic .86
model for two-phase non-Darcy flow in homogeneous porous media using volume averaging
,Interpore conference ,Fraunhofer ITWM Kaiserslautern Fraunhofer-Platz 1 Kaiserslautern,
.Germany ,11-14 March 2009
- Ali Akbar ABBASIAN ARANI, Didier LASSEUX and Azita AHMADI ,A numerical approach of .87
two-phase non-Darcy flow in heterogeneous porous media ,Interpore conference ,Fraunhofer
.ITWM Kaiserslautern Fraunhofer-Platz 1 Kaiserslautern, Germany ,11-14 March 2009
- Pouyan SHAHMOHAMADI, Ali Akbar ABBASIAN ARANI, Ali CHERAGHI ,Heat Flux effect study .88
on convection heat transfer coefficient over vertical rotating disk ,19st Annual Iranian
Mechanical Engineering Conference, ISME2011 ,Faculty of Engineering, Birjand University,
.Birjand, Iran ,10-12 May, 2011
- Ali Akbar ABBASIAN ARANI, Jafar AMANI, and Mohammad HEMMAT ASFEH ,Numerical .89
study of natural convection in square cavity with a wavy vertical wall utilizing Nanofluid ,19st
Annual Iranian Mechanical Engineering Conference, ISME2011 ,Faculty of Engineering, Birjand
.University, Birjand, Iran ,10-12 May, 2011

1. علی ازاد، علی اکبر عباسیان آرانی، علی عارف منش، رحیم شمس الدینی، Analysis of nanofluid flow and heat transfer inside a channel with smoothed particle hydrodynamics, *International Journal of Thermofluids*, Vol. 25, pp. 1, 2024 11 29, JCR
2. محمدرضا مددی، علی اکبر عباسیان آرانی، Experimental evaluation of photovoltaic thermal (PVT) system using a modular heat collector with flat back shape fins, pipe, nanofluids and phase, *Solar Energy Materials and Solar Cells*, Vol. 37, pp. 9, 2024 11 16, JCR
3. عباس بهزادی، علی اکبر عباسیان آرانی، علی عارف منش، Upgrading Existing CRU Heaters for Energy Saving by Adding Convection Section, *International journal Advanced Design and Manufacturing Technology*, Vol. 17, pp. 1, 2024 10 20
4. علی اکبر عباسیان آرانی، علی معمارزاده، Nanofluid effect on dual-flow parabolic trough collector performance accompanies with passive technique using experimental data, *International Journal of Numerical Methods for Heat & Fluid Flow*, Vol. 34, pp. 1, 2024 09 19, JCR
5. علی اکبر عباسیان آرانی، فرهاد منفردی، Insulator roof, acentric absorber tube and nanofluid effect on parabolic trough collector efficiency via two-phase flow simulation, *Journal of Thermal Analysis and Calorimetry*, Vol. 148, pp. 12481, 2023 12 06, JCR
6. آرام سلیمانی ورکانی، قنبر علی شیخ زاده، علی اکبر عباسیان آرانی، Flow field and heat transfer of ferromagnetic nanofluid in presence of magnetic field inside a corrugated tube, *Journal of Thermal Engineering*, Vol. 9, pp. 1667, 2023 09 30, JCR
7. علی اکبر عباسیان آرانی، دیا جاسم، محمد سجادی، صفورا رضانی علی ابادی، فاطمیا عباس، فرید سلطانی جونقانی، احمد رضا برومند پور، داوود طغرایبی، Adding tungsten oxide-MWCNTs-silica ternary nanopowders to water-ethylene glycol hybrid base fluid to investigate the rheological behavior of a created nanocolloid, *International Journal of Refrigeration*, Vol. 155, pp. 258, 2023 09 15, JCR
8. علی اکبر عباسیان آرانی، فرهاد منفردی، Nanofluid turbulent flow in parabolic trough collector: Insulator roof, acentric absorber tube and SiC nanoparticles effects, *Engineering Analysis with Boundary Elements*, Vol. 156, pp. 160, 2023 08 12, JCR
9. محمدرضا بابائی، قنبر علی شیخ زاده، علی اکبر عباسیان آرانی، Numerical Study of Thethermohydraulic and Energy-saving Performance of a Graphene Nanoplatelet-platinum Hybrid Nanofluid inside a Manifold Microchannel Heat Sink, *The Journal of Energy: Engineering & Management*, Vol. 12, pp. 100, 2023 02 15, ISC
10. Ali Akbar Abbasian Arani, Hossein Aberoumand, Amin Jafarimoghaddam, Sadegh Aberoumand, Mixed convection heat transfer: an experimental study on Cu/heat transfer oil nanofluids inside annular tube, *HEAT MASS TRANSFER*, Vol. 53, pp. 2875–2884, 2017
11. Mohammad Hemmat Esfe, Mohammad Hadi Hajmohammad, Peyman Razi, Mohammad Reza Hassani Ahangar, Ali Akbar Abbasian Arani, The optimization of viscosity and thermal conductivity in hybrid nanofluids prepared with magnetic nanocomposite of nanodiamond cobalt-oxide (ND-Co3O4) using NSGA-II and RSM, *INT COMMUN HEAT MASS*, Vol. 79, pp. 128-134, 2016
12. Ali Akbar Abbasian Arani, Farhad Pourmoghadam, Experimental investigation of thermal conductivity behavior of MWCNTS-Al₂O₃/ethylene glycol hybrid Nanofluid: providing new thermal conductivity correlation, *Heat and Mass Transfer*, 2019
13. Mohammad Hemmat Esfe, S Esfandeh, Ali Akbar Abbasian Arani, Proposing a modified engine oil to reduce cold engine start damages and increase safety in high temperature operating conditions, *Powder Technology*, Vol. 355, pp. 251-263, 2019
14. Ali Akbar Abbasian Arani, Mehrdad Kazemi, Analysis of fluid flow and heat transfer of nanofluid inside triangular enclosure equipped with rotational obstacle, *Journal of Mechanical Science and Technology*, Vol. 33, pp. 4917-4929, 2019
15. Farzad Pourfattah, Ali Akbar Abbasian Arani, Mohammad Reza Babaie, HM Nguyen, A Asadi, On the thermal characteristics of a manifold microchannel heat sink subjected to nanofluid using two-phase flow simulation, *International Journal of Heat and Mass Transfer*, Vol. 143, 2019
16. Ali Akbar Abbasian Arani, Hamed Uosofvand, Improving shell and tube heat exchanger

themohydraulic performance using combined baffle,International Journal of Numerical Methods .for Heat & Fluid Flow,2019

Mohammad Rezaee, Morteza Khoshvaght ,& Aliabadi, Ali Akabr Abbasian Arani, Syead .17
Hossein Mazloumi,Enhanced heat transfer in pin-fin heat sink working with nitrogen gas-water
two-phase flow: Variable pin-length and longitudinal-pitch,Journal of Thermal Analysis and
.Calorimetry,2019

Ali Akbar Abbasian Arani, Farhad Monfaredi, Alireza Aghaei, Masoud Afrand, Ali J Chamkha, .18
Hesamoddin Emami,Thermal radiation effect on the flow field and heat transfer of Co3O4-
diamond/EG hybrid nanofluid using experimental data: A numerical study,The European Physical
.Journal Plus,pp. 1-13,2019

Ali Akbar Abbasian Arani, Amin Jahani,Turbulent Pulsating Nanofluids Flow and Heat .19
Transfer inside Constant Heat Flux Boundary Condition Helical-coil Tube,AUT Journal of
.Mechanical Engineering,2019

Ali Akbar Abbasian Arani, Siavash Gholami Ghale Nazeri,Effect of vortex generator on a wavy .20
wall heat exchanger performance for turbulent nanofluid flow under a magnetic field,Amirkabir
.Journal of Mechanical Engineering,2019

Ali Akbar Abbasian Arani, Ali Arefmanesh, Armin Emamifar,Analysis of heat transfer in a .21
multilayer living tissue using the Galerkin weighted residuals method,Amirkabir Journal of
.Mechanical Engineering,2019

Ali Akbar Abbasian Arani, Reza Moradi,Shell and tube heat exchanger optimization using new .22
.baffle and tube configuration,Applied Thermal Engineering,Vol. 157,2019

M Rezaee, M Khoshvaght ,& Aliabadi, AA Abbasian Arani, SH Mazloumi,Heat transfer .23
intensification in pin-fin heat sink by changing pin-length/longitudinal-pitch,Chemical Engineering
.and Processing-Process Intensification,Vol. 141,2019

Ali Akbar Abbasian Arani, Ali Arefmanesh, Hamidreza Ehteram,Numerical optimization of .24
obstructed high temperature heat exchanger for recovery from the flue gases by considering ash
.fouling characteristics,International Journal of Numerical Methods for Heat & Fluid Flow,2019

Behrouz Mozafari, Ali Akbar Abbasian Arani, Ghanbar Ali Sheikhzadeh, Mahmoud .25
Salimi,Brownian models effect on turbulent fluid flow and heat transfer and entropy generation
of water/boehmite alumina nanofluid inside enclosure,International Journal of Numerical
.Methods for Heat & Fluid Flow,2019

Mohammad Hemmat Esfe, Ali Akbar Abbasian Arani, Saeed Esfandeh, Masoud .26
Afrand,Proposing new hybrid nano-engine oil for lubrication of internal combustion engines:
.Preventing cold start engine damages and saving energy,Energy,Vol. 170,pp. 228-238,2019

Mohammad Hemmat Esfe, Ali Akbar Abbasian Arani, Saeed Esfandeh,Improving engine oil .27
lubrication in light-duty vehicles by using of dispersing MWCNT and ZnO nanoparticles in 5W50
.as viscosity index improvers (VII),Applied Thermal Engineering,Vol. 143,pp. 493-506,2018

Mohammad Hemmat Esfe, Ali Akbar Abbasian Arani, Saeed Esfandeh,Experimental study on .28
rheological behavior of monograde heavy-duty engine oil containing CNTs and oxide
nanoparticles with focus on viscosity analysis,Journal of Molecular Liquids,Vol. 272,pp.
.319-329,2018

Ghanbar Ali Sheikhzadeh, Faezeh Nejati Barzoki, Ali Akbar Abbasian Arani, Farzad .29
Pourfattah,Wings shape effect on behavior of hybrid nanofluid inside a channel having vortex
.generator,Heat and Mass Transfer,pp. 1-15,2018

Mohammad Hemmat Esfe, Ali Akbar Abbasian Arani, Mohammad Reza Madadi, Ali .30
Alirezaie,A study on rheological characteristics of hybrid nano-lubricants containing MWCNT-
.TiO2 nanoparticles,Journal of Molecular Liquids,Vol. 260,pp. 229-236,2018

Ali Akbar Abbasian Arani, Ali Arefmanesh, Amirhossein Niroumand,Analysis of fully .31
developed flow and heat transfer through n-sided polygonal ducts with round corners using the
Galerkin weighted residual method,International Journal of Nonlinear Analysis and

- .Applications,Vol. 9,pp. 175-193,2018
- Mohammad Hemmat Esfe, Ali Akbar Abbasian Arani, An experimental determination and .32 accurate prediction of dynamic viscosity of MWCNT (% 40)-SiO₂ (% 60)/5W50 nano-lubricant, Journal of Molecular Liquids, Vol. 259, pp. 227-237, 2018
- Amin Jafarimoghaddam, Sadegh Aberoumand, Kourosh Javaherdeh, Ali Akbar Abbasian .33 Arani, Reza Jafarimoghaddam, Al/oil nanofluids inside annular tube: an experimental study on convective heat transfer and pressure drop, Heat and Mass Transfer, Vol. 54, pp. 1053-1067, 2018
- Mohammad Hemmat Esfe, Ali Akbar Abbasian Arani, Rasool Shafiei Badi, Mousa .34 Rejvani, ANN modeling, cost performance and sensitivity analyzing of thermal conductivity of DWCNT-SiO₂/EG hybrid nanofluid for higher heat transfer, Journal of Thermal Analysis and Calorimetry, Vol. 131, pp. 2381-2393, 2018
- Mohammad Hemmat Esfe, Ali Akbar Abbasian Arani, YAN Wei, & Mon, Alireza Aghaie, .35 Masoud Afrand, Nima Sina, MIXED CONVECTION OF FUNCTIONALIZED DWCNT/WATER NANOFUID IN BAFFLED LID-DRIVEN CAVITIES, THERM SCI, Vol. 22, 2018
- AA Abbasian Arani, S Sadripour, S Kermani, Energy and exergy analysis and optimization of a .36 heat sink collector equipped with rotational obstacles, AUT Journal of Mechanical Engineering, Vol. 2, pp. 39-50, 2018
- Mohammad Hemmat Esfe, Ali Akbar Abbasian Arani, Masoumeh Firouzi, Empirical study and .37 model development of thermal conductivity improvement and assessment of cost and sensitivity of EG-water based SWCNT-ZnO (30%: 70%) hybrid nanofluid, J MOL LIQ, Vol. 244, pp. 252-261, 2017
- Ali Arefmanesh, Ali Akbar Abbasian Arani, Amirhoosien Niroumand, Thermally developing flow .38 of Al₂O₃-water nanofluid through regular N-sided polygonal ducts: A semi-analytic weighted residuals approach, INT J REFRIG, Vol. 78, pp. 136-156, 2017
- Mohammad Hemmat Esfe, Mousa Rejvani, Rostam Karimpour, Ali Akbar Abbasian .39 Arani, Estimation of thermal conductivity of ethylene glycol-based nanofluid with hybrid suspensions of SWCNT-Al₂O₃ nanoparticles by correlation and ANN methods using experimental data, J THERM ANAL CALORIM, Vol. 128, pp. 1359-1371, 2017
- Ali Akbar Abbasian Arani, Soroush Sadripour, Saeideh Kermani, Nanoparticle shape effects on .40 thermal-hydraulic performance of boehmite alumina nanofluids in a sinusoidal-wavy mini-channel with phase shift and variable wavelength, INT J MECH SCI, Vol. 128, pp. 550-563, 2017
- Mohammad Hemmat Esfe, Ali Akbar Abbasian Arani, Saeed Esfandeh, Experimental .41 investigation on rheological behavior of CuO/Water (80%)-EG(20%) and sensitivity analysis of viscosity versus effective parameters (temperature and volume fraction), Journal of Modeling in Engineering, Vol. 16, pp. 89-100, 2017
- Ali Akbar Abbasian Arani, Hamidreza Ehteram, Alireza Aghaei, Zahra Shams .42 Ghahfarokhi, Numerical Study of fluid flow and heat transfer of mixed convection and entropy generation in a L-shaped cavity filled with nanofluid, Journal of Modeling in Engineering, Vol. 15, pp. 135-147, 2017
- Ali Akbar Abbasian Arani, Ahmad Ababaei, Ghanbar Ali Sheikhzadeh, Alireza .43 Aghaei, Numerical simulation of double-diffusive mixed convection in an enclosure filled with nanofluid using Bejan's heatlines and masslines, Alexandria Engineering Journal, Vol. 57, pp. 1287-1300, 2017
- A. A. Abbasian Arani, A. A. Azemati, M. Rezaee, B. S. Hadavand, Numerical study of different .44 conduction models for Al₂O₃-water nanofluid with variable properties inside a trapezoidal enclosure, J MECH SCI TECHNOL, Vol. 31, pp. 2433-2441, 2017
- Mohammad Hemmat Esfe, Ali Akbar Abbasian Arani, Wei Mon Yan, Alireza Aghaei, Numerical .45 Study of Mixed Convection Inside a \square -Shaped Cavity with Mg(OH)₂-EG Nanofluids, CURR NANOSCI, Vol. 13, pp. 354-363, 2017
- Ali Akbar Abbasian Arani, Omid Ali Akbari, Mohammad Reza Safaei, Ali Marzban, Abdullah .46

- AAA Alrashed, Gholam Reza Ahmadi, Truong Khang Nguyen, Heat transfer improvement of water/single-wall carbon nanotubes (SWCNT) nano fluid in a novel design of a truncated double-layered microchannel heat sink, *INT J HEAT MASS TRAN*, Vol. 113, pp. 780-795, 2017 .47
- Mohammad Hemmat Esfe, Rostam Karimpour, Ali Akbar Abbasian Arani, Jalal Shahram, Experimental investigation on non-Newtonian behavior of Al₂O₃-MWCNT/5W50 hybrid nano-lubricant affected by alterations of temperature, concentration and shear rate for engine applications, *INT COMMUN HEAT MASS*, Vol. 82, pp. 97-102, 2017 .48
- Mohammad Hemmat Esfe, Hossein Rostamian, Alireza Shabani, & samghabadi, Ali Akbar Abbasian Arani, Application of three-level general factorial design approach for thermal conductivity of MgO/water nanofluids, *APPL THERM ENG*, Vol. 127, pp. 1194-1199, 2017 .49
- Ali Akbar Abbasian Arani, Soroush Sadripour, Saeideh Kermani, Nanoparticle shape effects on thermal-hydraulic performance of boehmite alumina nanofluids in a sinusoidal-wavy mini-channel with phase shift and variable wavelength, *International Journal of Mechanical Sciences*, Vol. 128, pp. 550–563, 2017 .50
- Mohammad Esfe, Ali Arani, Jafar Amani, Somchai Wongwises, Estimation of Heat Transfer Coefficient and Thermal Performance Factor of TiO₂-Water Nanofluid Using Different Thermal Conductivity Models, *Current Nanoscience*, Vol. 13, pp. 548-562, 2017 .51
- Hamed Uosofvand, Ali Akbar Abbasian Arani, Ali Arefmanesh, Effect of baffle orientation on shell tube heat exchanger performance, *Journal of Heat and Mass Transfer Research (JHMTR)*, Vol. 4, pp. 83-90, 2017 .52
- Amin Jafari moghaddam, Hossein Aberoumand, Sadegh Aberoumand, Ali Akbar Abbasian Arani, Ali Habibollahzade, MHD wedge flow of nanofluids with an analytic solution to an especial case by Lambert W-function and Homotopy Perturbation Method, *Engineering Science and Technology, an International Journal*, Vol. 20, pp. 1515-1530, 2017 .53
- Mohammad Hemmat Esfe, Ali Akbar Abbasian Arani, Alireza Aghaie, Somchai Wongwises, Mixed convection flow and heat transfer in an up-driven, inclined, square enclosure subjected to DWCNT-water nanofluid containing three circular heat sources, *Current Nanoscience*, Vol. 13, pp. 311-323, 2017 .54
- A Ababaei, AA Arani, A Aghaei, Numerical investigation of forced convection of nanofluid flow in microchannels: effect of adding micromixer, *Journal of Applied Fluid Mechanics*, Vol. 10, pp. 1759-1772, 2017 .55
- Ahmad Ababaei, Mahmoud Abbaszadeh, Ali Akbar Abbasian Arani, Determining the Optimum Arrangement of Micromixers in a Microchannel Filled with CuO-Water Nanofluid via Minimizing Entropy Generation, *Defect and Diffusion Forum*, Vol. 378, pp. 39-58, 2017 .56
- Mostafa Mahmoodi, Ali Akbar Abbasian Arani, S Mazrouei Sebdani, Peyman Tajik, NATURAL CONVECTION IN NANOFLUID-FILLED SQUARE CHAMBERS SUBJECTED TO LINEAR HEATING ON BOTH SIDES: A NUMERICAL STUDY, *HEAT TRANSF RES*, Vol. 48, 2017 .57
- A.A. Abbasian Arani, R. Dehghani Yazdeli, Effects of conductivity models uncertainties on mixed convection for Al₂O₃ –water nanofluid, *SCI IRAN*, Vol. 23, pp. 951-965, 2016 .58
- Ali Akbar Abbasian Arani, Alireza Aghaei, Farzad Abedi, Analysis of magnetic field effects on distributed heat sources in a nanofluid-filled enclosure by natural convection, *Journal of Applied Fluid Mechanics*, Vol. 9, pp. 1175-1187, 2016 .59
- A. A Abbasian Arani, M. Abbaszadeh, A. Ardeshiri, Mixed convection fluid flow and heat transfer and optimal distribution of discrete heat sources location in a cavity filled with nanofluid, *Trans. Phenom. Nano Micro Scales*, Vol. 5, pp. 30-43, 2016 .60
- Mahmoud Abbaszadeh, Ahmad Ababaei, Ali Akbar Abbasian Arani, Ali Abbasi Sharifabadi, MHD forced convection and entropy generation of CuO-water nanofluid in a microchannel considering slip velocity and temperature jump, *J BRAZ SOC MECH SCI*, Vol. 39, pp. 775-790, 2016 .61
- Mohammad Hemmat Esfe, Pouyan Mohseni Behbahani, Ali Akbar Abbasian Arani, .61

- Mohammad Reza Sarlak, Thermal conductivity enhancement of SiO₂-MWCNT (85: 15%)-EG hybrid nanofluids, *J THERM ANAL CALORIM*, Vol. 128, pp. 249-258, 2016
- Mohammad Hemmat Esfe, Peyman Razi, Mohammad Hadi Hajmohammad, Seyed Hadi Rostamian, Wail Sami Sarsam, Ali Akbar Abbasian Arani, Mahidzal Dahari, Optimization, modeling and accurate prediction of thermal conductivity and dynamic viscosity of stabilized ethylene glycol and water mixture Al₂O₃ nanofluids by NSGA-II using ANN, *INT COMMUN HEAT MASS*, Vol. 82, pp. 154-160, 2016
- Mohammad Hemmat Esfe, Ali Akbar Abbasian Arani, Tagji Azizi, Seyed Hossien Mousavi, Somchai Wongwises, Numerical study of laminar-forced convection of Al₂O₃-water nanofluids between two parallel plates, *J MECH SCI TECHNOL*, Vol. 31, pp. 785-796, 2016
- Mohammad Hemmat Esfe, Hadi Hajmohammad, Reza Moradi, Ali Akbar Abbasian Arani, Multi-objective optimization of cost and thermal performance of double walled carbon nanotubes/water nanofluids by NSGA-II using response surface method, *APPL THERM ENG*, Vol. 112, pp. 1648-1657, 2016
- Mohammad Hemmat Esfe, Ali Akbar Abbasian Arani, Wei, & Mon Yan, Alireza Aghaei, Natural convection in T-shaped cavities filled with water-based suspensions of COOH-functionalized multi walled carbon nanotubes, *INT J MECH SCI*, Vol. 121, pp. 21-32, 2016
- H. R. Ehteram, A. A. Abbasian Arani, G. A. Sheikhzadeh, A. Aghaei, A. R. Malihi, The effect of various conductivity and viscosity models considering Brownian motion on nanofluids mixed convection flow and heat transfer, *Trans. Phenom. Nano Micro Scales*, Vol. 4, pp. 19-28, 2016
- A.A. Abbasian Arani, H. Aberoumand, S. Aberoumand, A. Jafari Moghaddam, M. Dastanian, An empirical investigation on thermal characteristics and pressure drop of Ag-oil nanofluid in concentric annular tube, *HEAT MASS TRANSFER*, Vol. 52, pp. 1693-1706, 2016
- Mohammad Hemmat Esfe, Ali Akbar Abbasian Arani, M. Rezaee, R. Dehghani Yazdeli, Somchai Wongwises, An Inspection of Viscosity Models for Numerical Simulation of Natural Convection of Al₂O₃-Water Nanofluid with Variable Properties, *CURR NANOSCI*, Vol. 13, pp. 449-461, 2016
- Mohammad Hemmat Esfe, Ali Akbar Abbasian Arani, Amir Hossein Niroumand, Wei, & Mon Yan, Arash Karimipour, Mixed convection heat transfer from surface-mounted block heat sources in a horizontal channel with nanofluids, *INT J HEAT MASS TRAN*, Vol. 89, pp. 783-791, 2015
- Mohammad Hemmat Esfe, Ali Akbar Abbasian Arani, Mohammad Rezaie, Wei, & Mon Yan, Arash Karimipour, Experimental determination of thermal conductivity and dynamic viscosity of Ag-MgO/water hybrid nanofluid, *INT COMMUN HEAT MASS*, Vol. 66, pp. 189-195, 2015
- M Dastmalchi, G.A. Sheikhzadeh, A. A. Abbasian Arani, Double-diffusive natural convection in a porous square enclosure filled with nanofluid, *INT J THERM SCI*, Vol. 95, pp. 88-98, 2015
- Mohammad Hemmat Esfe, Ali Akbar Abbasian Arani, Wei, & Mon Yan, Hamidreza Ehteram, Alireza Aghaie, Masoud Afrand, Natural convection in a trapezoidal enclosure filled with carbon nanotube-EG-water nanofluid, *INT J HEAT MASS TRAN*, Vol. 92, pp. 76-82, 2015
- A.A. Abbasian Arani, M. Mahmoodi, S. Mazrouei Sebdani, On the Cooling Process of Nanofluid in a Square Enclosure with Linear Temperature Distribution on Left Wall, *Journal of Applied Fluid Mechanics*, Vol. 7, pp. 591-601, 2014
- A. A. Abbasian, E. Kakoli, N. Hajjaligol, Double-diffusive natural convection of Al₂O₃-water nanofluid in an enclosure with partially active side walls using variable properties, *J MECH SCI TECHNOL*, Vol. 28, pp. 4681-4691, 2014
- A.A. Abbasian Arani, G.A. Sheikhzadeh, A. Ghadirian Arani, Study of fluid flow and heat transfer of Al₂O₃-water as a non-newtonian nanofluid through lid-driven enclosure, *Trans. Phenom. Nano Micro Scales*, Vol. 2, pp. 118-131, 2014
- Mahmoodi Mostafa, Abbasian Arani Ali Akbar, Mazrouei Sebdani Saeed, Nazari Saeed, Akbari Mohammad, FREE CONVECTION OF A NANOFUID IN A SQUARE CAVITY WITH A HEAT SOURCE ON THE BOTTOM WALL AND PARTIALLY COOLED FROM SIDES, *THERM SCI*, Vol. 18, pp.

- .283-300,2014
- Mahmoodi Mostafa, Abbasian Arani Ali Akbar, Mazrouei Sebdani Saeed, Nazari Saeed, Akbari .77
 Mohammad, Free convection of a nanofluid in a square cavity with a heat source on the bottom
 wall and partially cooled from sides, *Thermal Science*, Vol. 18, pp. 283-300, 2014
- A.A. Abbasian Arani, G.A. Sheikhzadeh, A. Ghadirian Arani, Study of fluid flow and heat .78
 transfer of AL₂O₃-water as a non-Newtonian nanofluid through lid-driven enclosure, *Transport
 Phenomena in Nano and Micro Scales*, Vol. 2, pp. 118-131, 2014
- Mohammad Hemmat Esfe, Ali Akbar Abbasian Arani, Arash Karimipour, Seyed Sadegh .79
 Mirtalebi Esforjani, NUMERICAL SIMULATION OF NATURAL CONVECTION AROUND AN
 OBSTACLE PLACED IN AN ENCLOSURE FILLED WITH DIFFERENT TYPES OF NANOFLUIDS, *HEAT
 TRANSF RES*, Vol. 45, pp. 279-292, 2014
- J. Amani, A.A. Abbasian Arani, Experimental study on heat transfer and pressure drop of .80
 TiO₂-water nanofluid, *AMIRKABIR JOURNAL OF SCIENCE AND TECHNOLOGH*, Vol. 46, pp.
 .29-31, 2013
- A.A. Abbasian Arani, A.Z. Maghsoudi, A.H. Niroumand, S.M.E. Derakhshani, Study of nanofluid .81
 natural convection in an inclined L-shaped cavity, *SCI IRAN*, Vol. 20, pp. 2297-2305, 2013
- A.A. Abbasian Arani, N. Hatami Nesar, M. Rezaee, Mixed convection in a trapezoidal .82
 enclosure filled with Cu-water nanofluid, *Modaress Journal of Mechanic*, Vol. 14, pp. 41-51, 2013
- A.A. Abbasian Arani, A. Aghaee and H. Ehteram, NUMERICAL INVESTIGATION OF BROWNIAN .83
 MOTION EFFECT ON NANOFLUID MIXED CONVECTION IN ENCLOSURE WITH A HOT CENTRAL
 HEAT SOURCE, *Journal of Modeling in Engineering*, Vol. 11, pp. 15-29, 2013
- A. Fereidun, A.A. Abbasian Arani, M. Hemmat Esfe, A. Zare Ghadi, NUMERICAL .84
 INVESTIGATION OF NATURAL CONVECTION AROUND A CIRCULAR CYLINDER PLACED IN A
 CAVITY FILLED WITH NANOFLUID BY CHANGING THE LOCATION AND RADIUS, *Journal of
 Modeling in Engineering*, Vol. 11, pp. 57-68, 2013
- A. A. Abbasian Arani, P. Shahmohamadi, G. A. Sheikhzadeh and M. A. Mehrabian, Convective .85
 Heat Transfer from a Heated Rotating Disk at Arbitrary Inclination Angle in Laminar Flow, *Iranian
 Journal of Engineering (IJE), TRANSACTIONS B: APPLICATIONS*, Vol. 26, pp. 865 – 874, 2013
- A.A. Abbasian Arani, J. Amani, Experimental investigation of diameter effect on heat transfer .86
 performance and pressure drop of TiO₂-water nanofluid, *Experimental Thermal and Fluid
 Science*, Vol. 44, pp. 520–533, 2013
- A.A. Abbasian Arani, J. Amani, Experimental study on the effect of TiO₂-water nanofluid on .87
 heat transfer and pressure drop, *Experimental Thermal and Fluid Science*, Vol. 42, pp.
 .107–115, 2012
- A. A. Abbasian Arani, G. A. Sheikhzadeh, R. Heidary, N. Hajjaligol, M. Ebrahim ,& .88
 Qomi, Numerical Study of Mixed Convection in a Lid-Driven Enclosure with a Centered Body Using
 Nanofluid Variable Properties, *Journal of NanoStructures*, Vol. 2, pp. 51-60, 2012
- A. A. Abbasian Arani, J. Amani, M. Hemmat Esfeh, Numerical Simulation of Mixed Convection .89
 Flows in a Square Double Lid-Driven Cavity Partially Heated Using Nanofluid, *Journal of
 NanoStructures*, Vol. 2, pp. 301-311, 2012
- A.A. Abbasian Arani, S. Mazrouei Sebdani, M. Mahmoodi, A. Ardeshiri, M. Aliakbari, Numerical .90
 study of mixed convection flow in a lid-driven cavity with sinusoidal heating on sidewalls using
 nanofluid, *Superlattices and Microstructures*, Vol. 51, pp. 893-911, 2012
- Ali Akbar Abbasian Arani, Ehsan Roohi, NATURAL CONVECTION IN A NANOFLUID-FILLED .91
 SQUARE CAVITY WITH AN ARC-SHAPED HEATED BAFFLE, *Computational Thermal Sciences*, Vol.
 .4, pp. 159-168, 2012
- Numerical study of mixed convection flow in a lid ,& driven cavity with sinusoidal heating on .92
 sidewalls using nanofluid, A.A. Abbasian Arani, S. Mazrouei Sebdani, M. Mahmoodi, A. Ardeshiri,
 .M. Aliakbari, *Superlattices and Microstructures*, Vol. 51, pp. 893-911, 2012
- Ali Akbar Abbasian Arani, and, Majid Dehghani, Numerical Comparison of Two and Three .93

- Dimensional Flow Regimes in Porous Media,Defect and Diffusion Forum,Vol. 312,pp.
.427-432,2011
- Ali Akbar Abbasian Arani, Mostafa Mahmoodi, Meysam Amini,Free Convection in a Nanofluid .94
Filled Square Cavity with a Horizontal Heated Plate,Defect and Diffusion Forum,Vol. 312,pp.
.433-438,2011
- D., Lasseux, A. A., Abbasian Arani, and, A., Ahmadi,On the stationary macroscopic inertial .95
effects for one phase flow in ordered and disordered porous media,PHYSICS OF FLUIDS,Vol.
.23,pp. 1-19,2011
- Ahmadi, A., Abbasian Arani, A. A. and, Lasseux, D.,Numerical Simulation of Two-Phase .96
Inertial Flow in Heterogeneous Porous Media,Transport in porous Media,Vol. 84,pp.
.177-200,2010
- Lasseux, D., Ahmadi, A. And Abbasian Arani,Two-Phase Inertial Flow in Homogeneous .97
Porous Media, A Theoretical Derivation Of a Macroscopic Model,Transport in porous Media,Vol.
.75,pp. 371-400,2008
- Ali Akbar ABBASIAN ARANI,Preventing Cavitations Damage to Hydraulics Structures by .98
Aeration,International Journal of Science & Technology of the University of Kashan,Vol. 1,pp.
.33-52,2000
- K. MAZAHERI and A. ABBASIAN,Numerical solution of the Euler Equation for Axisymmetric .99
.Flow,Iranian Journal of Science and Technology,Vol. 22,pp. 17-33,1988