Alireza Aghaei

Latin Name in Papers: Aghaei, A.

Ph.d in Mechanical Engineering(Energy Conversion)

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Work Experience

1- Teaching in Kashan University since 2013(Mechanic of Fluids 1, Mechanic of Fluids 2, Thermodynamic 2, Heat Transfer Lab, Mechanic of Fluids Lab)
2- Teaching in various University
3- Associate in Tarbiat Modares Mechanical Engineering's Scientific-Research Publication (Ended), Engineering and Energy Management Publication (Continous)
4- Supervisor and Consultant at Hamoon-Nayzeh Factory (Manufacturing Ductile Cast Iron Pipes)
5- Reviewer of International Journals (Applied Thermal Engineering – Elsevier, International Journal of Heat and Mass Transfer – Elsevier)

Research Projects

1 – "Numerical study of nanofluid's heat transfer in an enclosure with central heat source and presenting correlations for nusselt number"

2 – "Numerical study of flow field and heat transfer of nanofluids with variable propeties in a trapezoidal enclosure of porous medium"

3 – "Numerical investigation of fluid's flow, heat transfer and entropy generation in natural convection of nanofluids with variable properties in an enclosure with two circular heat sources"

4 – "Investigation of parameters influencing entropy generation of nanofluid's turbulent flow in channels and micro channels"

5 – "Investigation of the effect of uncertainty, various models of viscosity and heat transfer coefficient on flow field, heat transfer and entropy generation in mixed convection of nanofluids in a trapezoidal enclosure"

6 – "Numerical investigation of fluid's flow, heat transfer and entropy generation in natural convection of nanofluids in a Γ shaped enclosure"

7 – "Numerical study of flow field, heat transfer, entropy generation and the effects of magnetic field on various nanofluids with considering dependant models on Brownian motion in a triangular enclosure"

8 – "Investigation of the effect of nanoparticle's shape on flow field and heat transfer of nanofluids"

ISI papers

Applied Mathematical Modelling	**0307-904X**	Mixed convection heat transfer in a CuO-water filled trapezoidal enclosure, effects of various constant and variable properties of the nanofluid	Vol. 40, No. 2, 15 January 2016, pp 815–831 http://www.sciencedirect.com/science/article/pii/S0307904X15007052 https://doi.org/10.1016/j.apm.2015.10.043	Aremanesh, **Alireza Aghaei,** Ehteram
Journal of Magnetism and Magnetic Materials	**0304-8853**	Numerical study of magnetic field on mixed convection and entropy generation of nanofluid in a trapezoidal enclosure	Vol. 403, 1 April 2016, pp. 133–145 http://www.sciencedirect.com/science/article/pii/S0304885315308398 https://doi.org/10.1016/j.apm.2015.10.043	**Alireza Aghaei**, Khorasanizadeh, Sheikhzadeh, Abbaszadeh

Journal of Applied Fluid Mechanics	**1735-3572**	Numerical Investigation of Mixed Convection Fluid Flow, Heat Transfer and Entropy Generation in Triangular Enclosure Filled with a Nanofluid	Vol. 9, No. 1, pp. 147-156- January 2016 jafmonline.net/JournalArchive/ download?file_ID=38969&issue_ID=224	**Alireza Aghaei,** Sheikhzadeh, Ehteram, Hajiahmadi
Journal of Applied Fluid Mechanics	**1735-3572**	Analysis of magnetic field effects on distributed heat sources in a nanofluid-filled enclosure by natural convection	Vol. 9, No. 3, April 2016- pp. 1175-1187, jafmonline.net/JournalArchive/ download?file_ID=39813&issue_ID=228	**Alireza Aghaei** Abbasian Abedi
International Journal of Heat and Mass Transfer	**0017-9310**	Natural convection in a trapezoidal enclosure filled with carbon nanotube–EG–water nanofluid	Vol. 92, January 2016, pp. 76–82 http://www.sciencedirect.com/ science/article/pii/S0017931015303409 https://doi.org/10.1016/ j.ijheatmasstransfer.2015.08.036	Hemmat Esfe, Abbasian Arani, Wei-Mon Yan Ehteram, **Alireza Aghaie,** Afranda
Journal of Transport Phenomena in Nano and Micro Scales (TPNMS)	**2322-3634**	MHD natural convection and entropy generation of variable properties nanofluid in a triangular Enclosure	Vol. 3, No. 1, pp 37–45-2015 http://tpnms.usb.ac.ir/ article_1807_293.html	**Alireza Aghaei** Sheikhzadeh Ehteram
Ain Shams Engineering Journal	**2090-4479**	Numerical investigation of turbulent forced-convective heat transfer of Al2O3–water nanofluid with variable properties in tube	Vol. 6, No. 2, June 2015, pp. 577–585 http://www.sciencedirect.com/ science/article/pii/S2090447914001798 https://doi.org/10.1016/j.asej.2014.11.015	**Alireza Aghaei** sheikhzadeh dastmalchi, Forozande
Iranica Journal of Energy & Environment	**2079-2115**	The Potential and Characteristics of Solar Energy in Yazd Province, Iran	Vol. 5, No. 2, 2014, pp. 173–183 *dosi.org/ijee/5(2)14/9.pdf* http://citeseerx.ist.psu.edu/viewdoc /download?doi=10.1.1.665.3188&rep=rep1&type=pdf	khorasanizadeh mohamadi, **Alireza Aghaei**
Iranica Journal of Energy & Environment	**2079-2115**	Attaining Optimum Tilts of Flat Solar Surfaces Utilizing Measured Solar Data: Case Study for Ilam, Iran	Vol. 5, No. 3, 2014, pp. 224–232 http://idosi.org/ijee/5(3)14/1.pdf http://www.ijee.net/Journal/ijee/vol5/no3/1.pdf	khorasanizadeh **Alireza Aghaei** Ehteram, dehghani, hatami
ISME JOURNAL	**9727-1605**	Effect of magnetic field on heat transfer of nanofluid with variable properties on the inclined enclosure	Vol. 15, No. 1, 2014 pp. 28–38 http://jmee.isme.ir/article_19597.html	**Alireza Aghaei** Sheikhzadeh Khorasanizadeh Ehteram
Journal of Transport Phenomena in Nano and Micro Scales (TPNMS)	**2322-3634**	The effect of various conductivity and viscosity models considering Brownian motion on nanofluids	Vol. 4, No. 1, 2016, pp. 19–28 http://tpnms.usb.ac.ir/article_2216_359.html	Ehteram abbasian Sheikhzadeh **Alireza Aghaei**

		mixed convection flow and heat transfer		
THERMAL SCIENCE International Scientific Journal	**0354 - 9836**	Analytical study of parameters affecting entropy generation of nanofluid turbulent flow in channel and micro-channel	**DOI REFERENCE: 10.2298/TSCI151112070S Vol. 20, No. 6, 2016, pp. 2037–2050 http://thermalscience.vinca.rs/2016/6/23**	Sheikhzadeh **Alireza Aghaei** Ehteram Abbaszadeh
THERMAL SCIENCE, International Scientific Journal	**0354 - 9836**	Mixed convection of functionalized dwcnt/water nanofluid in baffled lid-driven cavities	Year 2018, Vol. 22, No. 6A, pp. 2503-2514 **http://www.doiserbia.nb.rs/ Article.aspx?id=0354-98361600216E#.WAO69vTy3s8**	Hemmat Esfe ,Abbasian Arani , Wei-Mon Yan ,**Alireza Aghaei**, Afrand ,Nima Sina
International Journal of Mechanical Sciences	**0020-7403**	**Natural convection in T-shaped cavities filled with water-based suspensions of COOH-functionalized multi walled carbon nanotubes**	**Volume 121, February 2017, Pages 21–32 http://www.sciencedirect.com/ science/article/pii/S0020740316311031**	Mohammad Hemmat Esfe, Ali Akbar Abbasian Arani, Wei-Mon Yan, **Alireza Aghaei**
Current Nanoscience	**1573 - 4137**	**Mixed Convection Flow and Heat Transfer in an Up-Driven, Inclined, Square Enclosure Subjected to DWCNT-Water Nanofluid Containing Three Circular Heat Sources**	**January - YEAR 2017, VOLUME 13, PAGES [1-13] 24, 2017— http://www.eurekaselect.com/node/149666/article**	Hemmat Esfe ,Ali Akbar Abbasian Arani, **Alireza Aghaei**, Somchai Wongwises
Alexandria Engineering Journal	**1110 - 0168**	**Numerical simulation of double-diffusive mixed convection in an enclosure filled with nanofluid using Bejan's heatlines and masslines**	**http://www.sciencedirect.com/ science/article/pii/S1110016817301278** revised 28 January 2017; accepted 29 March 2017	Ali Akbar Abbasian Arani, Ahmad Ababaei, , Ghanbar Ali Sheikhzadeh, **Alireza Aghaei**
Current Nanoscience	**1573 - 4137**	**Numerical study of mixed convection inside a Γ-shaped cavity with Mg(OH2)-EG nanofluids**	**VOLUME: 13 Year: 2017 354-363 DOI:** 10.2174/1573413713666170405155255	Mohammad Hemmat Esfe, Ali Akbar Abbasian Arani, Wei-Mon Yan, **Alireza Aghaei**
Journal of Applied Fluid Mechanics	**1735-3572**	**Numerical Investigation of Forced Convection of Nanofluid Flow in Microchannels: Effect of Adding Micromixer**	jafmonline.net/JournalArchive /download?file_ID=43830&issue_ID=245 Vol. 10, No. 6, pp. 1759-1772, 2017. DOI: 10.18869/acadpub.jafm.73.243.27364	A. Ababaei, A.A. Abbasian Arani and A. **Aghaei**
Journal of Transport Phenomena in	**2322-3634**	**Effect of nanoparticle shape on natural**	**Volume 6, Issue 1, Winter and Spring 2018, Page 27-38 DOI: 10.22111/tpnms.2018.3520 http://tpnms.usb.ac.ir/article_3520.html**	Sheikhzadeh, **Alireza Aghaei**, soleimani

Nano and Micro Scales (TPNMS)		**convection heat transfer in a square cavity with partitions using water-SiO2 nanofluid**		
THERMAL SCIENCE, International Scientific Journal	**0354 - 9836**	**Investigating the effect of Brownian motion models on heat transfer and entropy generation in nanofluid forced convection**	**Year 2019, Vol. 23, No. 2A, pp. 485-496**	Pourmohamadian, Sheikhzadeh, **A. Aghaei**, H. Ehteram, M. Adibi**,**
Heat and Mass Transfer	**0947 - 7411**	**Measurement of the dynamic viscosity of hybrid engine oil -Cuo-MWCNT nanofluid, development of a practical viscosity correlation and utilizing the artificial neural network**	**Heat and Mass Transfer** **DOI 10.1007/s00231-017-2112-6** **https://link.springer.com/** **article/10.1007/s00231-017-2112-6** January 2018, Volume 54, Issue 1, pp 151–161	**A. Aghaei,** H. khorasanizadeh, Gh.A.Sheikhzadeh,
The European Physical Journal Plus	**2190 - 5444**	**Effect of horizontal and vertical elliptic baffles inside an enclosure on the mixed convection of a MWCNTs-water nanofluid and its entropy generation**	Eur. Phys. J. Plus (2018) 133: 486 DOI 10.1140/epjp/i2018-12278-4 29 November 2018 https://link.springer.com/article /10.1140%2Fepjp%2Fi2018-12278-4 2018/11/29 Impact Factor2.240	**Alireza Aghaei**, Sheikhzadeh, Hasani, Damirchi, Afrand
Physica A: Statistical Mechanics and its Applications	**0378 - 4371**	**Predicting the effect of functionalized multi-walled carbon nanotubes on thermal performance factor of water under various Reynolds number using artificial neural network**	Physica A 521 (2019) 493–500 https://www.sciencedirect.com/science /article/pii/S0378437119300603	Abdulwahab A. Alnaqi, Sina Sayyad Tavoos Hal, **Alireza Aghaei**, Mehdi Soltanimehr, Masoud Afrand, Truong Khang Nguyen
Journal of Transport Phenomena in Nano and Micro Scales (TPNMS)	**2322 - 3634**	**Numerical analysis of thermal-hydraulic properties of turbulent aerosol-carbon black nanofluid flow in corrugated solar collectors with double application**	Trans. Phenom. Nano Micro Scales, 7(1): 37-52, Winter and Spring 2019 . DOI: 10.22111/tpnms.2018.16247.1098	sheikhzadeh1, Monfaredi1, **Alireza Aghaei*,** Sadripour, Adibi1

The European Physical Journal Plus	**2190 - 5444**	**Thermal radiation effect on the flow field and heat transfer of Co3O4-diamond/EG hybrid nanofluid using experimental data: A numerical study**	Eur. Phys. J. Plus (2019) **134**: 13 DOI 10.1140/epjp/i2019-12431-7 **https://link.springer.com/article/** 10.1140%2Fepjp%2Fi2019-12431-7 **Impact Factor2.240**	Abbasian Arani1, Monfaredi, **Alireza Aghaei**, Afrand, Chamkha, Emami
Journal of Thermal Analysis and Calorimetry	**1388 - 6150**	**Effect of a porous medium on flow and mixed convection heat transfer of nanofluids with variable properties in a trapezoidal enclosure**	Journal of Thermal Analysis and Calorimetry https://doi.org/10.1007/s10973-019-08404-4 _ https://link.springer.com/article/10.1007/s10973-019-08404-4, _	Al-Rashed Sheikhzadeh **Alireza Aghaei** Farhad Monfared Amin Shahsavar Masoud Afrand
The European Physical Journal Plus	**2190 - 5444**	**A Numerical Study of the Effect of the Magnetic Field on Turbulent fluid flow, Heat Transfer and Entropy Generation of Hybrid Nanofluid in a Trapezoidal Enclosure**	DOI: 10.1140/epjp/i2019-12681-3 Eur. Phys. J. Plus (2019) 134: 310 pp.2-16 https://link.springer.com/article/10.1140/epjp/i2019-12681-3	**A. Aghaei*,** H. khorasanizadeh, Gh.A.Sheikhzadeh
International Journal of Mechanical Sciences	**0020-7403**	**Effect of differentially heated tubes on natural convection heat transfer in a space between two adiabatic horizontal concentric cylinders using nano-fluid**	Volume 163, November 2019, 105148 https://www.sciencedirect.com/ science/article/pii/S0020740319328954 https://doi.org/10.1016/j.ijmecsci.2019.105148	YulinMa, MojtabaJamiatia, **AlirezaAghaei,** MohammadSepehrirad, AminDezfulizadeh, MasoudAfrand

Journal of Thermal Analysis and Calorimetry	**1388 - 6150**	**An investigation on the influence of the shape of the vortex generator on fluid flow and turbulent heat transfer of hybrid nanofluid in a channel**	Journal of Thermal Analysis and Calorimetry *Therm Anal Calorim* (2020). https://doi.org/10.1007/s10973-020-09415-2	Zheng, Yang, Mazaheri, **Alireza Aghaei,** Mokhtari Afrand
Journal of Thermal Analysis and Calorimetry	**1388 - 6150**	**hermal–hydraulic efficiency management of spiral heat exchanger filled with Cu–ZnO/water hybrid nanofluid**	Journal of Thermal Analysis and Calorimetry *Therm Anal Calorim* (2020). https://doi.org/10.1007/s10973-020-09721-9	S. Rostami, **Alireza Aghaei,** A. Hassani Joshaghani, H. Mahdavi Hezaveh
Mathematical Methods In The Applied Sciences	**1099 - 1476**	**Nusselt number and friction factor variations in a capsule heat exchanger filled with eco-friendly jatropha seed oil–based multi walled carbon nanotubes nanofluid**	https://onlinelibrary.wiley.com/doi/abs/10.1002/mma.6831 DOI: 10.1002/mma.6831	S. Rostami, **Alireza Aghaei**, H. Mahdavi Hezaveh, H. Muhammad Ali,A. Shasavar Goldanlou
Journal of Thermal Analysis and Calorimetry	**1388-6150**	**Exergy efficiency of a novel heat exchanger under MHD effects filled with water-based Cu-SiO2-MWCNT ternary hybrid nanofluid based on empirical data**	https://link.springer.com/article/10.1007%2Fs10973-021-10867-3 10.1007/s10973-021-10867-3 https://doi.org/10.1007/s10973-021-10867-3	Dezfulizadeh, **Alireza Aghaei**, Hasani, Najafizadeh
	2345-2951	**Numerical Simulation of a Parabolic Dish Solar Collector filled with a Two-Phase Nano-fluid**	https://energy.kashanu.ac.ir/article-1-1510-en.html	**Alirea Aghaei**, Fadaei

Powder Technology	**0032-5910**	**An experimental study on dynamic viscosity and thermal conductivity of water-Cu-SiO2-MWCNT ternary hybrid nanofluid and the development of practical correlations**	Powder Technology Volume 389, September 2021, Pages 215-234 https://www.sciencedirect.com/science/article/abs/pii/S0032591021004265 https://doi.org/10.1016/j.powtec.2021.05.029	Dezfulizadeh, **Alireza Aghaei**, Hasani, Najafizadeh
Engineering Applications of Computational Fluid Mechanics	**1994-2060**	**Heat transfer and fluid flow analysis using nanofluids in diamond-shaped cavities with novel obstacles**	Engineering Applications of Computational Fluid Mechanics, vol. 15:1, pp. 1034-1056, DOI: 10.1080/19942060.2021.1930170	**Alireza Aghaei**, Bhattacharyya, Dezfulizadeh, Goldanlou, Rostami, M. Sharifpur