Khalil Khanafer

List of Publications by Year
in descending order

73 papers	6,543 citations	136740 32 h-index	91712 69 g-index
73 all docs	73 docs citations	73 times ranked	4810 citing authors

#	Article	IF	Citations
1	Buoyancy-driven heat transfer enhancement in a two-dimensional enclosure utilizing nanofluids. International Journal of Heat and Mass Transfer, 2003, 46, 3639-3653.	2.5	2,440
2	A critical synthesis of thermophysical characteristics of nanofluids. International Journal of Heat and Mass Transfer, 2011, 54, 4410-4428.	2.5	917
3	A review on the applications of nanofluids in solar energy field. Renewable Energy, 2018, 123, 398-406.	4.3	283
4	Effects of strain rate, mixing ratio, and stressâ€"strain definition on the mechanical behavior of the polydimethylsiloxane (PDMS) material as related to its biological applications. Biomedical Microdevices, 2009, 11, 503-508.	1.4	228
5	Tear size and location impacts false lumen pressure in an ex vivo model of chronic type B aortic dissection. Journal of Vascular Surgery, 2008, 47, 844-851.	0.6	174
6	Laminar mixed convection flow and heat transfer characteristics in a lid driven cavity with a circular cylinder. International Journal of Heat and Mass Transfer, 2013, 66, 200-209.	2.5	133
7	In Vitro Characterisation of Physiological and Maximum Elastic Modulus of Ascending Thoracic Aortic Aneurysms Using Uniaxial Tensile Testing. European Journal of Vascular and Endovascular Surgery, 2010, 39, 700-707.	0.8	128
8	Effect of sinusoidal wavy bottom surface on mixed convection heat transfer in a lid-driven cavity. International Journal of Heat and Mass Transfer, 2007, 50, 1771-1780.	2.5	127
9	The role of porous media in biomedical engineering as related to magnetic resonance imaging and drug delivery. Heat and Mass Transfer, 2006, 42, 939-953.	1.2	126
10	Organization of Endothelial Cells, Pericytes, and Astrocytes into a 3D Microfluidic <i>in Vitro</i> Model of the Bloodâ€"Brain Barrier. Molecular Pharmaceutics, 2016, 13, 895-906.	2.3	123
11	Fluidâ€"structure interaction analysis of mixed convection heat transfer in a lid-driven cavity with a flexible bottom wall. International Journal of Heat and Mass Transfer, 2011, 54, 3826-3836.	2.5	89
12	Fluidâ€"structure interaction analysis of turbulent pulsatile flow within a layered aortic wall as related to aortic dissection. Journal of Biomechanics, 2009, 42, 2642-2648.	0.9	88
13	Determination of the elastic modulus of ascending thoracic aortic aneurysm at different ranges of pressure using uniaxial tensile testing. Journal of Thoracic and Cardiovascular Surgery, 2011, 142, 682-686.	0.4	79
14	Non-Darcian effects on natural convection heat transfer in a wavy porous enclosure. International Journal of Heat and Mass Transfer, 2009, 52, 1887-1896.	2.5	76
15	Mixed convection heat transfer in a lid-driven cavity with a rotating circular cylinder. International Communications in Heat and Mass Transfer, 2017, 86, 131-142.	2.9	71
16	Mixed convection analysis of laminar pulsating flow and heat transfer over a backward-facing step. International Journal of Heat and Mass Transfer, 2008, 51, 5785-5793.	2.5	68
17	Mixed convection heat transfer in two-dimensional open-ended enclosures. International Journal of Heat and Mass Transfer, 2002, 45, 5171-5190.	2.5	63
18	Mixed convection heat transfer in a differentially heated cavity with two rotating cylinders. International Journal of Thermal Sciences, 2019, 135, 117-132.	2.6	60

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19	Comparison of flow and heat transfer characteristics in a lid-driven cavity between flexible and modified geometry of a heated bottom wall. International Journal of Heat and Mass Transfer, 2014, 78, 1032-1041.	2.5	58
20	Influence of pulsatile blood flow and heating scheme on the temperature distribution during hyperthermia treatment. International Journal of Heat and Mass Transfer, 2007, 50, 4883-4890.	2.5	57
21	Laminar natural convection heat transfer in a differentially heated cavity with a thin porous fin attached to the hot wall. International Journal of Heat and Mass Transfer, 2015, 87, 59-70.	2.5	55
22	Buoyancy-induced flow and heat transfer in a partially divided square enclosure. International Journal of Heat and Mass Transfer, 2009, 52, 3818-3828.	2.5	52
23	Effective boundary conditions for buoyancy-driven flows and heat transfer in fully open-ended two-dimensional enclosures. International Journal of Heat and Mass Transfer, 2002, 45, 2527-2538.	2.5	50
24	Numerical analysis of natural convection heat transfer in a horizontal annulus partially filled with a fluid-saturated porous substrate. International Journal of Heat and Mass Transfer, 2008, 51, 1613-1627.	2.5	49
25	Buoyancy-driven flow and heat transfer in open-ended enclosures: elimination of the extended boundaries. International Journal of Heat and Mass Transfer, 2000, 43, 4087-4100.	2.5	45
26	Steady-state conjugate natural convection in a fluid-saturated porous cavity. International Journal of Heat and Mass Transfer, 2008, 51, 4260-4275.	2.5	44
27	Mixed convection within a porous heat generating horizontal annulus. International Journal of Heat and Mass Transfer, 2003, 46, 1725-1735.	2.5	43
28	Fluid-dynamic and NOx computation in swirl burners. International Journal of Heat and Mass Transfer, 2011, 54, 5030-5038.	2.5	43
29	How Should We Measure and Report Elasticity in Aortic Tissue?. European Journal of Vascular and Endovascular Surgery, 2013, 45, 332-339.	0.8	38
30	Natural convection heat transfer utilizing nanofluid in a cavity with a periodic side-wall temperature in the presence of a magnetic field. International Communications in Heat and Mass Transfer, 2019, 104, 127-135.	2.9	36
31	Thermal analysis of buried land mines over a diurnal cycle. IEEE Transactions on Geoscience and Remote Sensing, 2002, 40, 461-473.	2.7	35
32	The effect of the position of the heated thin porous fin on the laminar natural convection heat transfer in a differentially heated cavity. International Communications in Heat and Mass Transfer, 2016, 78, 190-199.	2.9	35
33	Fluidâ€"structure interaction analysis of flow and heat transfer characteristics around a flexible microcantilever in a fluidic cell. International Journal of Heat and Mass Transfer, 2010, 53, 1646-1653.	2.5	32
34	Fluidâ€"structure interaction analysis of non-Darcian effects on natural convection in a porous enclosure. International Journal of Heat and Mass Transfer, 2013, 58, 382-394.	2.5	31
35	Non-Darcian Effects on the Mixed Convection Heat Transfer in a Metallic Porous Block with a Confined Slot Jet. Numerical Heat Transfer; Part A: Applications, 2008, 54, 665-685.	1.2	30
36	Refinements in Mathematical Models to Predict Aneurysm Growth and Rupture. Annals of the New York Academy of Sciences, 2006, 1085, 110-116.	1.8	29

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37	Sources of error in the measurement of aortic diameter in computed tomography scans. Journal of Vascular Surgery, 2014, 59, 74-79.	0.6	29
38	A critical investigation of the anomalous behavior of molten salt-based nanofluids. International Communications in Heat and Mass Transfer, 2015, 69, 51-58.	2.9	28
39	Isothermal surface production and regulation for high heat flux applications utilizing porous inserts. International Journal of Heat and Mass Transfer, 2001, 44, 2933-2947.	2.5	27
40	Fluid-Structure Interactions in a Tissue during Hyperthermia. Numerical Heat Transfer; Part A: Applications, 2014, 66, 1-16.	1.2	27
41	Computational modeling of cerebral diffusion-application to stroke imaging. Magnetic Resonance Imaging, 2003, 21, 651-661.	1.0	24
42	Techno-economical simulation and study of a novel MSF desalination process. Desalination, 2016, 386, 1-12.	4.0	24
43	THE ROLE OF POROUS MEDIA IN MODELING FLUID FLOW WITHIN HOLLOW FIBER MEMBRANES OF THE TOTAL ARTIFICIAL LUNG. Journal of Porous Media, 2012, 15, 113-122.	1.0	23
44	Experimental and Clinical Evidence Supporting Septectomy in the Primary Treatment of Acute Type B Thoracic Aortic Dissection. Annals of Vascular Surgery, 2015, 29, 167-173.	0.4	23
45	Unsteady conjugate natural convection in a porous cavity boarded by two vertical finite thickness walls. International Communications in Heat and Mass Transfer, 2017, 81, 218-228.	2.9	22
46	Effects of thin metal outer case and top air gap on thermal IR images of buried antitank and antipersonnel land mines. IEEE Transactions on Geoscience and Remote Sensing, 2003, 41, 123-135.	2.7	21
47	Water diffusion in biomedical systems as related to magnetic resonance imaging. Magnetic Resonance Imaging, 2003, 21, 17-31.	1.0	19
48	Analysis of the anomalies in graphene thermal properties. International Journal of Heat and Mass Transfer, 2017, 104, 328-336.	2.5	19
49	Fluidâ€"structure interaction analysis of flow and heat transfer characteristics around a flexible microcantilever in a fluidic cell. International Communications in Heat and Mass Transfer, 2016, 75, 315-322.	2.9	18
50	Numerical and experimental analysis of turbulent flow and heat transfer of minimum quantity lubrication in a turning process using discrete phase model. International Communications in Heat and Mass Transfer, 2019, 104, 23-32.	2.9	18
51	Quantitative evaluation of the effect of poly(amidoamine) dendrimers on the porosity of epithelial monolayers. Nanoscale, 2010, 2, 755.	2.8	17
52	Effect of a circular cylinder and flexible wall on natural convective heat transfer characteristics in a cavity filled with a porous medium. Applied Thermal Engineering, 2020, 181, 115989.	3.0	16
53	Spatial optimization of an array of aligned microcantilever based sensors. Journal of Micromechanics and Microengineering, 2004, 14, 1328-1336.	1.5	15
54	Geometrical and flow configurations for enhanced microcantilever detection within a fluidic cell. International Journal of Heat and Mass Transfer, 2005, 48, 2886-2895.	2.5	13

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55	Experimental Foundation for InÂVivo Measurement of the Elasticity of the Aorta in Computed Tomography Angiography. European Journal of Vascular and Endovascular Surgery, 2013, 46, 447-452.	0.8	13
56	Numerical analysis of the incineration of polychlorinated biphenyl wastes in rotary kilns. Journal of Environmental Chemical Engineering, 2016, 4, 624-632.	3.3	13
57	Numerical study of flow and heat transfer of minimum quantity lubrication based nanofluid in a turning process using Inconel alloy. International Journal of Advanced Manufacturing Technology, 2020, 108, 475-483.	1.5	13
58	Analysis of turbulent two-phase flow and heat transfer using nanofluid. International Communications in Heat and Mass Transfer, 2021, 124, 105219.	2.9	13
59	Combined Forced- and Natural-Convection Heat Transfer in Horizontally CounterRotating Eccentric and Concentric Cylinders. Numerical Heat Transfer; Part A: Applications, 2007, 51, 1167-1186.	1.2	12
60	Correlation between MMP and TIMP levels and elastic moduli of ascending thoracic aortic aneurysms. Cardiovascular Revascularization Medicine, 2019, 20, 324-327.	0.3	11
61	Experimental Analysis of an Improved Solar Still System with Cooling Fan and Preheating Oil. Energy Engineering: Journal of the Association of Energy Engineers, 2017, 114, 55-71.	0.3	10
62	Applications of Nanomaterials in Solar Energy and Desalination Sectors. Advances in Heat Transfer, 2013, 45, 303-329.	0.4	8
63	Unsteady numerical simulation of double diffusive convection heat transfer in a pulsating horizontal heating annulus. Heat and Mass Transfer, 2006, 42, 1007-1015.	1.2	7
64	3D multiphysics modeling aided APU development for vehicle applications: A thermo-structural investigation. International Journal of Hydrogen Energy, 2019, 44, 12094-12107.	3.8	6
65	A Critical Synthesis of Graphene Thermal Properties and Its Applications. Advances in Heat Transfer, 2016, 48, 95-124.	0.4	5
66	Advancing Front Oxygen Transfer Model for the Design of Microchannel Artificial Lungs. ASAIO Journal, 2020, 66, 1054-1062.	0.9	5
67	Flow and Heat Transfer in a Driven Cavity with Two Cylinders. Journal of Thermophysics and Heat Transfer, 2017, 31, 99-108.	0.9	4
68	Analysis of heat transfer and flow characteristics of a microcantilever beam for piezoelectric energy harvesting. International Communications in Heat and Mass Transfer, 2018, 98, 265-272.	2.9	3
69	Non-Darcian Effects on Buoyancy-Induced Heat Transfer in a Partially Divided Square Enclosure with Internal Heat Generation. Transport in Porous Media, 2010, 84, 663-683.	1.2	1
70	Heat up impact on thermal stresses in SOFC for mobile APU applications: Thermo-structural analysis. Sustainable Energy Technologies and Assessments, 2022, 52, 102159.	1.7	1
71	Erratum to â€œExperimental Foundation for InÂVivo Measurement of the Elasticity of the Aorta in Computed Tomography Angiographyâ€•[Eur J Vasc Endovasc Surg 46 (2013) 447â€"452]. European Journal of Vascular and Endovascular Surgery, 2013, 46, 733.	0.8	0
72	Response to â€˜Re. How Should We Measure and Report Elasticity of Aortic Tissue?â€™. European Journal of Vascular and Endovascular Surgery, 2014, 47, 111.	0.8	0

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73	Numerical Modeling of Coil Compaction in the Treatment of Cerebral Aneurysms using Porous Media Theory. FASEB Journal, 2008, 22, 1207.7.	0.2	0