

Anthony J Robinson

List of Publications by Year in descending order

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117
papers

3,773
citations

126858

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docs citations

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times ranked

3011
citing authors

#	ARTICLE	IF	CITATIONS
1	Influence of surface tension implementation in Volume of Fluid and coupled Volume of Fluid with Level Set methods for bubble growth and detachment. <i>International Journal of Multiphase Flow</i> , 2013, 53, 11-28.	1.6	249
2	Present and future thermal interface materials for electronic devices. <i>International Materials Reviews</i> , 2018, 63, 1-21.	9.4	223
3	Experimental investigation of small diameter two-phase closed thermosyphons charged with water, FC-84, FC-77 and FC-3283. <i>Applied Thermal Engineering</i> , 2010, 30, 201-211.	3.0	174
4	Reliability of thermal interface materials: A review. <i>Applied Thermal Engineering</i> , 2013, 50, 455-463.	3.0	166
5	The effect of concentration, thermal history and cell seeding density on the initial mechanical properties of agarose hydrogels. <i>Journal of the Mechanical Behavior of Biomedical Materials</i> , 2009, 2, 512-521.	1.5	127
6	Experimental study of gas injected bubble growth from submerged orifices. <i>Experimental Thermal and Fluid Science</i> , 2013, 44, 124-137.	1.5	118
7	An experimental investigation of free and submerged miniature liquid jet array impingement heat transfer. <i>Experimental Thermal and Fluid Science</i> , 2007, 32, 1-13.	1.5	116
8	The dynamics of spherical bubble growth. <i>International Journal of Heat and Mass Transfer</i> , 2004, 47, 5101-5113.	2.5	108
9	A review on conductive polymers and their hybrids for flexible and wearable thermoelectric applications. <i>Materials Today Physics</i> , 2021, 18, 100402.	2.9	108
10	Small scale electricity generation from a portable biomass cookstove: Prototype design and preliminary results. <i>Applied Energy</i> , 2013, 102, 374-385.	5.1	92
11	Nozzle geometry effects in liquid jet array impingement. <i>Applied Thermal Engineering</i> , 2009, 29, 2211-2221.	3.0	87
12	A high-precision apparatus for the characterization of thermal interface materials. <i>Review of Scientific Instruments</i> , 2009, 80, 095111.	0.6	85
13	On the analysis of bubble growth and detachment at low Capillary and Bond numbers using Volume of Fluid and Level Set methods. <i>Chemical Engineering Science</i> , 2013, 90, 77-91.	1.9	75
14	A single phase hybrid micro heat sink using impinging micro-jet arrays and microchannels. <i>Applied Thermal Engineering</i> , 2018, 136, 408-418.	3.0	70
15	Battery charging considerations in small scale electricity generation from a thermoelectric module. <i>Applied Energy</i> , 2014, 114, 80-90.	5.1	66
16	Marangoni heat transfer in subcooled nucleate pool boiling. <i>International Journal of Heat and Mass Transfer</i> , 2004, 47, 5115-5128.	2.5	65
17	A two-phase flow pattern map for annular channels under a DC applied voltage and the application to electrohydrodynamic convective boiling analysis. <i>International Journal of Heat and Mass Transfer</i> , 2005, 48, 5563-5579.	2.5	64
18	A Thermal-Hydraulic Comparison of Liquid Microchannel and Impinging Liquid Jet Array Heat Sinks for High-Power Electronics Cooling. <i>IEEE Transactions on Components and Packaging Technologies</i> , 2009, 32, 347-357.	1.4	61

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19	Electric field effects during nucleate boiling from an artificial nucleation site. <i>Experimental Thermal and Fluid Science</i> , 2011, 35, 762-771.	1.5	57
20	Transient and quasi-steady thermal behaviour of a building envelope due to retrofitted cavity wall and ceiling insulation. <i>Energy and Buildings</i> , 2013, 61, 356-365.	3.1	52
21	Characterization of evaporator and condenser thermal resistances of a screen mesh wicked heat pipe. <i>International Journal of Heat and Mass Transfer</i> , 2008, 51, 6039-6046.	2.5	51
22	A liquid-based system for CPU cooling implementing a jet array impingement waterblock and a tube array remote heat exchanger. <i>Applied Thermal Engineering</i> , 2012, 39, 86-94.	3.0	49
23	Confinement and vapour production rate influences in closed two-phase reflux thermosyphons Part A: Flow regimes. <i>International Journal of Heat and Mass Transfer</i> , 2018, 119, 907-921.	2.5	48
24	Field trial testing of an electricity-producing portable biomass cooking stove in rural Malawi. <i>Energy for Sustainable Development</i> , 2014, 20, 1-10.	2.0	45
25	Bubble growth in a uniform and spatially distributed temperature field. <i>International Journal of Heat and Mass Transfer</i> , 2001, 44, 2699-2710.	2.5	44
26	Electrohydrodynamic enhancement of in-tube convective condensation heat transfer. <i>International Journal of Heat and Mass Transfer</i> , 2006, 49, 1647-1657.	2.5	42
27	Heat pipe-based radiator for low grade geothermal energy conversion in domestic space heating. <i>Simulation Modelling Practice and Theory</i> , 2011, 19, 1154-1163.	2.2	40
28	Energy efficiency of electrical infrared heating elements. <i>Applied Energy</i> , 2016, 162, 581-588.	5.1	40
29	The mechanisms of heat transfer during convective boiling under the influence of AC electric fields. <i>International Journal of Heat and Mass Transfer</i> , 2014, 73, 376-388.	2.5	39
30	Local heat transfer to an evaporating superhydrophobic droplet. <i>International Journal of Heat and Mass Transfer</i> , 2018, 121, 641-652.	2.5	39
31	On the assessment of a VOF based compressive interface capturing scheme for the analysis of bubble impact on and bounce from a flat horizontal surface. <i>International Journal of Multiphase Flow</i> , 2014, 65, 82-97.	1.6	36
32	Heat transfer characteristics of single cone-jet electrosprays. <i>International Journal of Heat and Mass Transfer</i> , 2017, 113, 70-83.	2.5	36
33	Enhanced nucleate pool boiling on copper-diamond textured surfaces. <i>Applied Thermal Engineering</i> , 2019, 162, 114145.	3.0	34
34	AC voltage induced electrohydrodynamic two-phase convective boiling heat transfer in horizontal annular channels. <i>Experimental Thermal and Fluid Science</i> , 2012, 41, 31-42.	1.5	33
35	Adiabatic bubble growth in uniform DC electric fields. <i>Experimental Thermal and Fluid Science</i> , 2013, 44, 114-123.	1.5	33
36	Heat flux distribution beneath evaporating hydrophilic and superhydrophobic droplets. <i>International Journal of Heat and Mass Transfer</i> , 2020, 148, 119093.	2.5	33

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37	The effects of bend angle and fill ratio on the performance of a naturally aspirated thermosyphon. <i>Applied Thermal Engineering</i> , 2016, 101, 455-467.	3.0	32
38	Case studies of cavity and external wall insulation retrofitted under the Irish Home Energy Saving Scheme: Technical analysis and occupant perspectives. <i>Energy and Buildings</i> , 2016, 130, 420-433.	3.1	31
39	Simulation-driven design of a passive liquid cooling system for a thermoelectric generator. <i>Applied Energy</i> , 2017, 205, 499-510.	5.1	31
40	Bubble impingement and the mechanisms of heat transfer. <i>International Journal of Heat and Mass Transfer</i> , 2014, 71, 439-450.	2.5	30
41	Heat transfer performance of boiling jet array impingement on micro-grooved surfaces. <i>Experimental Thermal and Fluid Science</i> , 2017, 80, 293-304.	1.5	30
42	Evaporating hydrophilic and superhydrophobic droplets in electric fields. <i>International Journal of Heat and Mass Transfer</i> , 2021, 164, 120539.	2.5	30
43	Performance analysis of a prototype small scale electricity-producing biomass cooking stove. <i>Applied Energy</i> , 2015, 156, 566-576.	5.1	29
44	Confinement and vapour production rate influences in closed two-phase reflux thermosyphons Part B: Heat transfer. <i>International Journal of Heat and Mass Transfer</i> , 2018, 120, 1241-1254.	2.5	29
45	An Experimental Study of Small-Diameter Wickless Heat Pipes Operating in the Temperature Range 200°C to 450°C. <i>Heat Transfer Engineering</i> , 2009, 30, 1041-1048.	1.2	28
46	A numerical study of quasi-static gas injected bubble growth: Some aspects of gravity. <i>International Journal of Heat and Mass Transfer</i> , 2013, 64, 468-482.	2.5	25
47	Electrospray array heat transfer. <i>International Journal of Thermal Sciences</i> , 2018, 129, 451-461.	2.6	25
48	Confined jet array impingement boiling. <i>Experimental Thermal and Fluid Science</i> , 2017, 86, 224-234.	1.5	23
49	A wicked heat pipe fabricated using metal additive manufacturing. <i>International Journal of Thermofluids</i> , 2021, 12, 100117.	4.0	23
50	A new transient method for determining thermal properties of wall sections. <i>Energy and Buildings</i> , 2017, 142, 139-146.	3.1	22
51	Numerical Investigation of Bubble Induced Marangoni Convection: Some Aspects of Bubble Geometry. <i>Microgravity Science and Technology</i> , 2008, 20, 319-325.	0.7	21
52	A mathematical model for predicting bubble growth for low Bond and Jakob number nucleate boiling. <i>Chemical Engineering Science</i> , 2014, 112, 35-46.	1.9	20
53	Adaptive design of a prototype electricity-producing biomass cooking stove. <i>Energy for Sustainable Development</i> , 2015, 28, 41-51.	2.0	20
54	Two-step PCR in the Retrospective Diagnosis of Enteroviral Viraemia. <i>Scandinavian Journal of Infectious Diseases</i> , 1992, 24, 137-141.	1.5	19

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55	A thermal model for energy loss through walls behind radiators. <i>Energy and Buildings</i> , 2016, 127, 370-381.	3.1	19
56	EHD Augmented Convective Boiling: Flow Regimes and Enhanced Heat Transfer. <i>Heat Transfer Engineering</i> , 2014, 35, 517-527.	1.2	18
57	Analysis of quasi-static vapour bubble shape during growth and departure. <i>Physics of Fluids</i> , 2013, 25, .	1.6	17
58	The splitting of bamboo in response to changes in humidity and temperature. <i>Journal of the Mechanical Behavior of Biomedical Materials</i> , 2020, 111, 103990.	1.5	17
59	Integral momentum balance on a growing bubble. <i>Physics of Fluids</i> , 2013, 25, .	1.6	16
60	A new hybrid heat sink with impinging micro-jet arrays and microchannels fabricated using high volume additive manufacturing. , 2017, , .		16
61	Electricity generation from a biomass cookstove with MPPT power management and passive liquid cooling. <i>Energy for Sustainable Development</i> , 2018, 43, 162-172.	2.0	16
62	Optimisation of retrofit wall insulation: An Irish case study. <i>Energy and Buildings</i> , 2021, 235, 110720.	3.1	16
63	Numerical Investigation of Bubble-induced Marangoni Convection. <i>Annals of the New York Academy of Sciences</i> , 2009, 1161, 304-320.	1.8	14
64	Heat transfer near an isolated hemispherical gas bubble: The combined influence of thermocapillarity and buoyancy. <i>International Journal of Heat and Mass Transfer</i> , 2013, 62, 422-434.	2.5	14
65	Local Heat Transfer to an Evaporating Sessile Droplet in an Electric Field. <i>Journal of Physics: Conference Series</i> , 2016, 745, 032066.	0.3	14
66	Lateral coalescence of bubbles in the presence of a DC electric field. <i>International Communications in Heat and Mass Transfer</i> , 2016, 76, 127-132.	2.9	14
67	Low mass flux upward vertical forced flow boiling of HFE7000. <i>Experimental Thermal and Fluid Science</i> , 2019, 102, 291-301.	1.5	14
68	Influence of natural and forced gravity conditions during directional columnar solidification. <i>International Journal of Heat and Mass Transfer</i> , 2018, 126, 66-80.	2.5	13
69	Experimental characterization of a hybrid impinging microjet-microchannel heat sink fabricated using high-volume metal additive manufacturing. <i>International Journal of Thermofluids</i> , 2020, 5-6, 100029.	4.0	12
70	The Influence of Gravity and Confinement on Marangoni Flow and Heat Transfer Around a Bubble in a Cavity: A Numerical Study. <i>Microgravity Science and Technology</i> , 2008, 20, 253-259.	0.7	11
71	A naturally aspirated convector for domestic heating application with low water temperature sources. <i>Energy and Buildings</i> , 2013, 67, 187-194.	3.1	11
72	Solid and Vapor Chamber Integrated Heat Spreaders: Which to Choose and Why. <i>IEEE Transactions on Components, Packaging and Manufacturing Technology</i> , 2018, 8, 1581-1592.	1.4	11

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73	Energy efficiency of a quartz tungsten halogen lamp: Experimental and numerical approach. Thermal Science and Engineering Progress, 2019, 13, 100385.	1.3	11
74	Heat and mass transfer for a small diameter thermosyphon with low fill ratio. International Journal of Thermofluids, 2020, 1-2, 100010.	4.0	11
75	Modeling and Experimental Characterization of Metal Microtextured Thermal Interface Materials. Journal of Heat Transfer, 2014, 136, .	1.2	10
76	Multi-physics simulation of transport phenomena in planar proton-conducting solid oxide fuel cell. Journal of Power Sources, 2021, 481, 228997.	4.0	10
77	Upward flow boiling of HFE-7000 in high frequency AC electric fields. International Journal of Thermofluids, 2021, 10, 100076.	4.0	10
78	Passive two-phase cooling of air circuit breakers in data center power distribution systems. International Journal of Electrical Power and Energy Systems, 2020, 121, 106138.	3.3	10
79	Development of EHD ion-drag micropump for microscale electronics cooling. , 2007, , .		9
80	The Influence of the Magnitude of Gravitational Acceleration on Marangoni Convection About an Isolated Bubble under a Heated Wall. Heat Transfer Engineering, 2009, 30, 1096-1107.	1.2	9
81	Convective heat transfer due to thermal Marangoni flow about two bubbles on a heated wall. International Journal of Thermal Sciences, 2014, 78, 101-110.	2.6	9
82	Electrohydrodynamic augmentation of a reflux thermosyphon. Experimental Thermal and Fluid Science, 2016, 79, 175-186.	1.5	9
83	Direct manufacturing of diamond composite coatings onto silicon wafers and heat transfer performance. CIRP Annals - Manufacturing Technology, 2018, 67, 185-188.	1.7	9
84	Development of a high-accuracy thermal interface material tester. Intersociety Conference on Thermal and Thermomechanical Phenomena in Electronic Systems, 2008, , .	0.0	8
85	Modelling of quasi-static adiabatic bubble formation, growth and detachment for low Bond numbers. Chemical Engineering Science, 2013, 104, 742-754.	1.9	8
86	Development of a naturally aspired thermosyphon for power amplifier cooling. Journal of Physics: Conference Series, 2014, 525, 012007.	0.3	8
87	Axisymmetric front tracking model for the investigation of grain structure evolution during directional solidification. International Journal of Heat and Mass Transfer, 2017, 115, 592-605.	2.5	8
88	NUMERICAL METHOD FOR SPHERICAL BUBBLE GROWTH IN SUPERHEATED LIQUIDS. Computational Thermal Sciences, 2010, 2, 19-31.	0.5	8
89	Numerical simulation of Bridgman solidification of binary alloys. International Journal of Heat and Mass Transfer, 2017, 104, 199-211.	2.5	7
90	The thermal diffusivity of hemplime, and a method of direct measurement. Construction and Building Materials, 2019, 212, 707-715.	3.2	7

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91	Modeling the compressive deformation of metal micro-textured thermal interface materials using SEM geometry reconstruction. Computers and Structures, 2012, 92-93, 216-228.	2.4	6
92	Compact facility for testing steady and transient thermal performance of building walls. Energy and Buildings, 2017, 152, 602-614.	3.1	6
93	Electrohydrodynamic Enhancement of Flow Boiling in an Eccentric Horizontal Cylindrical Channel. Journal of Enhanced Heat Transfer, 2008, 15, 183-198.	0.5	6
94	Bouncing bubble dynamics and associated enhancement of heat transfer. Journal of Physics: Conference Series, 2012, 395, 012167.	0.3	5
95	Numerical investigation of volume of fluid and level set interface capturing methods for bubble growth and detachment. Journal of Physics: Conference Series, 2012, 395, 012166.	0.3	5
96	CONVECTIVE BOILING WITH ELECTROHYDRODYNAMIC ENHANCEMENT: THE INFLUENCE OF INLET QUALITY. Interfacial Phenomena and Heat Transfer, 2016, 4, 55-69.	0.3	5
97	Development of a Metal Micro-Textured Thermal Interface Material. , 2009, , .		4
98	Modelling the effective thermal conductivity of compressing structures including contact resistance. Simulation Modelling Practice and Theory, 2016, 67, 74-88.	2.2	4
99	The economic and environmental combination between building materials and fuel source to improve building energy performance. International Journal of Ambient Energy, 2019, , 1-16.	1.4	4
100	Confinement Effects in Heat Transfer to a Miniature Compressible Impinging Air Jet. , 2007, , .		3
101	Analysis of the Interface Curvature Evolution During Bubble Growth. Heat Transfer Engineering, 2014, 35, 528-536.	1.2	3
102	Numerical analysis of transport phenomena in solid oxide fuel cell gas channels. Fuel, 2022, 311, 122557.	3.4	3
103	The Effect of Nozzle Geometry on Pressure Drop and Heat Transfer to Free Surface Liquid Jet Arrays. , 2007, , 747.		2
104	Characterization of Thermal Contact Resistance in Metal Micro-Textured Thermal Interface Materials Using Electrical Contact Resistance Measurements. Defect and Diffusion Forum, 2010, 297-301, 1190-1198.	0.4	2
105	Mixed Convective Heat Transfer Due to Forced and Thermocapillary Flow Around Bubbles in a Miniature Channel: A 2D Numerical Study. Heat Transfer Engineering, 2010, 31, 335-343.	1.2	2
106	Sliding bubble dynamics and the effects on surface heat transfer. Journal of Physics: Conference Series, 2012, 395, 012180.	0.3	2
107	Thermal-hydraulic performance of convective boiling jet array impingement. Journal of Physics: Conference Series, 2016, 745, 032120.	0.3	2
108	Cold sprayed boiling enhancement coating. , 2017, , .		2

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109	Mechanisms of heat transfer for axisymmetric bubble impingement and rebound. Heat and Mass Transfer, 2018, 54, 2559-2570.	1.2	2
110	Multiple dendrite tip tracking for in-situ directional solidification: Experiments and comparisons to theory. Materials Today Communications, 2021, 29, 102807.	0.9	2
111	Numerical Study of Marangoni: Thermocapillary Convection Influence During Boiling Heat Transfer in Minichannels. , 2008, , .		2
112	DEPRESSURIZATION EFFECTS ON THE THERMAL FIELDS AND HEAT TRANSFER DURING HEMI-SPHERICAL BUBBLE GROWTH ON A HEATED SURFACE. Computational Thermal Sciences, 2010, 2, 341-358.	0.5	2
113	Heat transfer near the contact line during boiling in microgravity. Microgravity Science and Technology, 2007, 19, 139-140.	0.7	1
114	A front-tracking measurement technique for in-situ columnar and equiaxed structure growth with controlled solidification. Measurement Science and Technology, 2021, 32, 045903.	1.4	1
115	Numerical Simulation of Exhaust Gas Cooling in Channels with Periodic Elbows for Application in Compact Heat Recovery Systems. Journal of Physics: Conference Series, 2012, 395, 012041.	0.3	0
116	Investigation of Vapour Chamber Performance with a Concentrated Heat Source. Journal of Physics: Conference Series, 2014, 525, 012005.	0.3	0
117	Simplified methods for characterizing thermal parameters of high-power automotive LEDs. Case Studies in Thermal Engineering, 2022, , 102157.	2.8	0