

# Anthony J Robinson

## List of Publications by Year in descending order

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117  
papers

3,773  
citations

126708

33  
h-index

143772

57  
g-index

117  
all docs

117  
docs citations

117  
times ranked

3011  
citing authors

#	ARTICLE	IF	CITATIONS
1	Numerical analysis of transport phenomena in solid oxide fuel cell gas channels. <i>Fuel</i> , 2022, 311, 122557.	3.4	3
2	Simplified methods for characterizing thermal parameters of high-power automotive LEDs. <i>Case Studies in Thermal Engineering</i> , 2022, , 102157.	2.8	0
3	Evaporating hydrophilic and superhydrophobic droplets in electric fields. <i>International Journal of Heat and Mass Transfer</i> , 2021, 164, 120539.	2.5	30
4	Multi-physics simulation of transport phenomena in planar proton-conducting solid oxide fuel cell. <i>Journal of Power Sources</i> , 2021, 481, 228997.	4.0	10
5	A front-tracking measurement technique for in-situ columnar and equiaxed structure growth with controlled solidification. <i>Measurement Science and Technology</i> , 2021, 32, 045903.	1.4	1
6	Optimisation of retrofit wall insulation: An Irish case study. <i>Energy and Buildings</i> , 2021, 235, 110720.	3.1	16
7	Upward flow boiling of HFE-7000 in high frequency AC electric fields. <i>International Journal of Thermofluids</i> , 2021, 10, 100076.	4.0	10
8	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
9	Multiple dendrite tip tracking for in-situ directional solidification: Experiments and comparisons to theory. <i>Materials Today Communications</i> , 2021, 29, 102807.	0.9	2
10	A wicked heat pipe fabricated using metal additive manufacturing. <i>International Journal of Thermofluids</i> , 2021, 12, 100117.	4.0	23
11	Heat and mass transfer for a small diameter thermosyphon with low fill ratio. <i>International Journal of Thermofluids</i> , 2020, 1-2, 100010.	4.0	11
12	Heat flux distribution beneath evaporating hydrophilic and superhydrophobic droplets. <i>International Journal of Heat and Mass Transfer</i> , 2020, 148, 119093.	2.5	33
13	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
14	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
15	Passive two-phase cooling of air circuit breakers in data center power distribution systems. <i>International Journal of Electrical Power and Energy Systems</i> , 2020, 121, 106138.	3.3	10
16	Energy efficiency of a quartz tungsten halogen lamp: Experimental and numerical approach. <i>Thermal Science and Engineering Progress</i> , 2019, 13, 100385.	1.3	11
17	Enhanced nucleate pool boiling on copper-diamond textured surfaces. <i>Applied Thermal Engineering</i> , 2019, 162, 114145.	3.0	34
18	The economic and environmental combination between building materials and fuel source to improve building energy performance. <i>International Journal of Ambient Energy</i> , 2019, , 1-16.	1.4	4

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19	The thermal diffusivity of hemplime, and a method of direct measurement. <i>Construction and Building Materials</i> , 2019, 212, 707-715.	3.2	7
20	Low mass flux upward vertical forced flow boiling of HFE7000. <i>Experimental Thermal and Fluid Science</i> , 2019, 102, 291-301.	1.5	14
21	Local heat transfer to an evaporating superhydrophobic droplet. <i>International Journal of Heat and Mass Transfer</i> , 2018, 121, 641-652.	2.5	39
22	Electrospray array heat transfer. <i>International Journal of Thermal Sciences</i> , 2018, 129, 451-461.	2.6	25
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	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
25	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
26	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
27	Present and future thermal interface materials for electronic devices. <i>International Materials Reviews</i> , 2018, 63, 1-21.	9.4	223
28	Mechanisms of heat transfer for axisymmetric bubble impingement and rebound. <i>Heat and Mass Transfer</i> , 2018, 54, 2559-2570.	1.2	2
29	Direct manufacturing of diamond composite coatings onto silicon wafers and heat transfer performance. <i>CIRP Annals - Manufacturing Technology</i> , 2018, 67, 185-188.	1.7	9
30	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
31	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
32	A new transient method for determining thermal properties of wall sections. <i>Energy and Buildings</i> , 2017, 142, 139-146.	3.1	22
33	A new hybrid heat sink with impinging micro-jet arrays and microchannels fabricated using high volume additive manufacturing. , 2017, , .		16
34	Confined jet array impingement boiling. <i>Experimental Thermal and Fluid Science</i> , 2017, 86, 224-234.	1.5	23
35	Heat transfer characteristics of single cone-jet electrosprays. <i>International Journal of Heat and Mass Transfer</i> , 2017, 113, 70-83.	2.5	36
36	Axisymmetric front tracking model for the investigation of grain structure evolution during directional solidification. <i>International Journal of Heat and Mass Transfer</i> , 2017, 115, 592-605.	2.5	8

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37	Compact facility for testing steady and transient thermal performance of building walls. Energy and Buildings, 2017, 152, 602-614.	3.1	6
38	Simulation-driven design of a passive liquid cooling system for a thermoelectric generator. Applied Energy, 2017, 205, 499-510.	5.1	31
39	Heat transfer performance of boiling jet array impingement on micro-grooved surfaces. Experimental Thermal and Fluid Science, 2017, 80, 293-304.	1.5	30
40	Numerical simulation of Bridgman solidification of binary alloys. International Journal of Heat and Mass Transfer, 2017, 104, 199-211.	2.5	7
41	Cold sprayed boiling enhancement coating. , 2017, , .		2
42	CONVECTIVE BOILING WITH ELECTROHYDRODYNAMIC ENHANCEMENT: THE INFLUENCE OF INLET QUALITY. Interfacial Phenomena and Heat Transfer, 2016, 4, 55-69.	0.3	5
43	Local Heat Transfer to an Evaporating Sessile Droplet in an Electric Field. Journal of Physics: Conference Series, 2016, 745, 032066.	0.3	14
44	Electrohydrodynamic augmentation of a reflux thermosyphon. Experimental Thermal and Fluid Science, 2016, 79, 175-186.	1.5	9
45	Case studies of cavity and external wall insulation retrofitted under the Irish Home Energy Saving Scheme: Technical analysis and occupant perspectives. Energy and Buildings, 2016, 130, 420-433.	3.1	31
46	Modelling the effective thermal conductivity of compressing structures including contact resistance. Simulation Modelling Practice and Theory, 2016, 67, 74-88.	2.2	4
47	Thermal-hydraulic performance of convective boiling jet array impingement. Journal of Physics: Conference Series, 2016, 745, 032120.	0.3	2
48	A thermal model for energy loss through walls behind radiators. Energy and Buildings, 2016, 127, 370-381.	3.1	19
49	Lateral coalescence of bubbles in the presence of a DC electric field. International Communications in Heat and Mass Transfer, 2016, 76, 127-132.	2.9	14
50	Energy efficiency of electrical infrared heating elements. Applied Energy, 2016, 162, 581-588.	5.1	40
51	The effects of bend angle and fill ratio on the performance of a naturally aspirated thermosyphon. Applied Thermal Engineering, 2016, 101, 455-467.	3.0	32
52	Performance analysis of a prototype small scale electricity-producing biomass cooking stove. Applied Energy, 2015, 156, 566-576.	5.1	29
53	Adaptive design of a prototype electricity-producing biomass cooking stove. Energy for Sustainable Development, 2015, 28, 41-51.	2.0	20
54	Modeling and Experimental Characterization of Metal Microtextured Thermal Interface Materials. Journal of Heat Transfer, 2014, 136, .	1.2	10

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55	The mechanisms of heat transfer during convective boiling under the influence of AC electric fields. International Journal of Heat and Mass Transfer, 2014, 73, 376-388.	2.5	39
56	Field trial testing of an electricity-producing portable biomass cooking stove in rural Malawi. Energy for Sustainable Development, 2014, 20, 1-10.	2.0	45
57	Battery charging considerations in small scale electricity generation from a thermoelectric module. Applied Energy, 2014, 114, 80-90.	5.1	66
58	Bubble impingement and the mechanisms of heat transfer. International Journal of Heat and Mass Transfer, 2014, 71, 439-450.	2.5	30
59	EHD Augmented Convective Boiling: Flow Regimes and Enhanced Heat Transfer. Heat Transfer Engineering, 2014, 35, 517-527.	1.2	18
60	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. International Journal of Multiphase Flow, 2014, 65, 82-97.	1.6	36
61	Analysis of the Interface Curvature Evolution During Bubble Growth. Heat Transfer Engineering, 2014, 35, 528-536.	1.2	3
62	A mathematical model for predicting bubble growth for low Bond and Jakob number nucleate boiling. Chemical Engineering Science, 2014, 112, 35-46.	1.9	20
63	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
64	Investigation of Vapour Chamber Performance with a Concentrated Heat Source. Journal of Physics: Conference Series, 2014, 525, 012005.	0.3	0
65	Development of a naturally aspirated thermosyphon for power amplifier cooling. Journal of Physics: Conference Series, 2014, 525, 012007.	0.3	8
66	Experimental study of gas injected bubble growth from submerged orifices. Experimental Thermal and Fluid Science, 2013, 44, 124-137.	1.5	118
67	Modelling of quasi-static adiabatic bubble formation, growth and detachment for low Bond numbers. Chemical Engineering Science, 2013, 104, 742-754.	1.9	8
68	A naturally aspirated convector for domestic heating application with low water temperature sources. Energy and Buildings, 2013, 67, 187-194.	3.1	11
69	On the analysis of bubble growth and detachment at low Capillary and Bond numbers using Volume of Fluid and Level Set methods. Chemical Engineering Science, 2013, 90, 77-91.	1.9	75
70	Adiabatic bubble growth in uniform DC electric fields. Experimental Thermal and Fluid Science, 2013, 44, 114-123.	1.5	33
71	Transient and quasi-steady thermal behaviour of a building envelope due to retrofitted cavity wall and ceiling insulation. Energy and Buildings, 2013, 61, 356-365.	3.1	52
72	Heat transfer near an isolated hemispherical gas bubble: The combined influence of thermocapillarity and buoyancy. International Journal of Heat and Mass Transfer, 2013, 62, 422-434.	2.5	14

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73	A numerical study of quasi-static gas injected bubble growth: Some aspects of gravity. International Journal of Heat and Mass Transfer, 2013, 64, 468-482.	2.5	25
74	Analysis of quasi-static vapour bubble shape during growth and departure. Physics of Fluids, 2013, 25, .	1.6	17
75	Influence of surface tension implementation in Volume of Fluid and coupled Volume of Fluid with Level Set methods for bubble growth and detachment. International Journal of Multiphase Flow, 2013, 53, 11-28.	1.6	249
76	Small scale electricity generation from a portable biomass cookstove: Prototype design and preliminary results. Applied Energy, 2013, 102, 374-385.	5.1	92
77	Reliability of thermal interface materials: A review. Applied Thermal Engineering, 2013, 50, 455-463.	3.0	166
78	Integral momentum balance on a growing bubble. Physics of Fluids, 2013, 25, .	1.6	16
79	Sliding bubble dynamics and the effects on surface heat transfer. Journal of Physics: Conference Series, 2012, 395, 012180.	0.3	2
80	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
81	Bouncing bubble dynamics and associated enhancement of heat transfer. Journal of Physics: Conference Series, 2012, 395, 012167.	0.3	5
82	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
83	AC voltage induced electrohydrodynamic two-phase convective boiling heat transfer in horizontal annular channels. Experimental Thermal and Fluid Science, 2012, 41, 31-42.	1.5	33
84	A liquid-based system for CPU cooling implementing a jet array impingement waterblock and a tube array remote heat exchanger. Applied Thermal Engineering, 2012, 39, 86-94.	3.0	49
85	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
86	Electric field effects during nucleate boiling from an artificial nucleation site. Experimental Thermal and Fluid Science, 2011, 35, 762-771.	1.5	57
87	Heat pipe-based radiator for low grade geothermal energy conversion in domestic space heating. Simulation Modelling Practice and Theory, 2011, 19, 1154-1163.	2.2	40
88	Experimental investigation of small diameter two-phase closed thermosyphons charged with water, FC-84, FC-77 and FC-3283. Applied Thermal Engineering, 2010, 30, 201-211.	3.0	174
89	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
90	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

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91	NUMERICAL METHOD FOR SPHERICAL BUBBLE GROWTH IN SUPERHEATED LIQUIDS. Computational Thermal Sciences, 2010, 2, 19-31.	0.5	8
92	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
93	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
94	Development of a Metal Micro-Textured Thermal Interface Material. , 2009, , .		4
95	Numerical Investigation of Bubble-Induced Marangoni Convection. Annals of the New York Academy of Sciences, 2009, 1161, 304-320.	1.8	14
96	The effect of concentration, thermal history and cell seeding density on the initial mechanical properties of agarose hydrogels. Journal of the Mechanical Behavior of Biomedical Materials, 2009, 2, 512-521.	1.5	127
97	Nozzle geometry effects in liquid jet array impingement. Applied Thermal Engineering, 2009, 29, 2211-2221.	3.0	87
98	A Thermal-Hydraulic Comparison of Liquid Microchannel and Impinging Liquid Jet Array Heat Sinks for High-Power Electronics Cooling. IEEE Transactions on Components and Packaging Technologies, 2009, 32, 347-357.	1.4	61
99	A high-precision apparatus for the characterization of thermal interface materials. Review of Scientific Instruments, 2009, 80, 095111.	0.6	85
100	An Experimental Study of Small-Diameter Wickless Heat Pipes Operating in the Temperature Range 200Å°C to 450Å°C. Heat Transfer Engineering, 2009, 30, 1041-1048.	1.2	28
101	Characterization of evaporator and condenser thermal resistances of a screen mesh wicked heat pipe. International Journal of Heat and Mass Transfer, 2008, 51, 6039-6046.	2.5	51
102	The Influence of Gravity and Confinement on Marangoni Flow and Heat Transfer Around a Bubble in a Cavity: A Numerical Study. Microgravity Science and Technology, 2008, 20, 253-259.	0.7	11
103	Numerical Investigation of Bubble Induced Marangoni Convection: Some Aspects of Bubble Geometry. Microgravity Science and Technology, 2008, 20, 319-325.	0.7	21
104	Development of a high-accuracy thermal interface material tester. Intersociety Conference on Thermal and Thermomechanical Phenomena in Electronic Systems, 2008, , .	0.0	8
105	Numerical Study of Marangoni: Thermocapillary Convection Influence During Boiling Heat Transfer in Minichannels. , 2008, , .		2
106	Electrohydrodynamic Enhancement of Flow Boiling in an Eccentric Horizontal Cylindrical Channel. Journal of Enhanced Heat Transfer, 2008, 15, 183-198.	0.5	6
107	The Effect of Nozzle Geometry on Pressure Drop and Heat Transfer to Free Surface Liquid Jet Arrays. , 2007, , 747.		2
108	Development of EHD ion-drag micropump for microscale electronics cooling. , 2007, , .		9

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109	Confinement Effects in Heat Transfer to a Miniature Compressible Impinging Air Jet. , 2007, , .		3
110	Heat transfer near the contact line during boiling in microgravity. Microgravity Science and Technology, 2007, 19, 139-140.	0.7	1
111	An experimental investigation of free and submerged miniature liquid jet array impingement heat transfer. Experimental Thermal and Fluid Science, 2007, 32, 1-13.	1.5	116
112	Electrohydrodynamic enhancement of in-tube convective condensation heat transfer. International Journal of Heat and Mass Transfer, 2006, 49, 1647-1657.	2.5	42
113	A two-phase flow pattern map for annular channels under a DC applied voltage and the application to electrohydrodynamic convective boiling analysis. International Journal of Heat and Mass Transfer, 2005, 48, 5563-5579.	2.5	64
114	The dynamics of spherical bubble growth. International Journal of Heat and Mass Transfer, 2004, 47, 5101-5113.	2.5	108
115	Marangoni heat transfer in subcooled nucleate pool boiling. International Journal of Heat and Mass Transfer, 2004, 47, 5115-5128.	2.5	65
116	Bubble growth in a uniform and spatially distributed temperature field. International Journal of Heat and Mass Transfer, 2001, 44, 2699-2710.	2.5	44
117	Two-step PCR in the Retrospective Diagnosis of Enteroviral Viraemia. Scandinavian Journal of Infectious Diseases, 1992, 24, 137-141.	1.5	19