Edmond J Walsh

List of Publications by Year
in descending order

57 papers	1,011 citations	471061 17 h-index	454577 30 g-index
61 all docs	61 docs citations	61 times ranked	941 citing authors

#	Article	IF	Citations
1	Reconfigurable Microfluidic Circuits for Isolating and Retrieving Cells of Interest. ACS Applied Materials & Interfaces, 2022, 14, 25209-25219.	4.0	1
2	Creating wounds in cell monolayers using micro-jets. Biomicrofluidics, 2021, 15, 014108.	1.2	4
3	Microfluidics on Standard Petri Dishes for Bioscientists. Small Methods, 2021, 5, 2100724.	4.6	4
4	Predicting flows through microfluidic circuits with fluid walls. Microsystems and Nanoengineering, 2021, 7, 93.	3.4	9
5	Using Fluid Walls for Single-Cell Cloning Provides Assurance in Monoclonality. SLAS Technology, 2020, 25, 267-275.	1.0	9
6	Jetâ€Printing Microfluidic Devices on Demand. Advanced Science, 2020, 7, 2001854.	5.6	17
7	Bubble nucleators to enhance external pool boiling from the bottom row of a tube bundle. Applied Thermal Engineering, 2020, 178, 115544.	3.0	5
8	Pool boiling of horizontal mini-tubes in unconfined and confined columns. International Journal of Heat and Mass Transfer, 2019, 145, 118733.	2.5	3
9	Raising fluid walls around living cells. Science Advances, 2019, 5, eaav8002.	4.7	32
10	Biocompatibility of Sessile Drops as Chambers for Cell Culture. , 2019, , .		0
11	An optimised logarithmic discretisation approach for accurate and efficient compact thermal models. Energy, 2018, 147, 995-1006.	4.5	1
12	Pool boiling of resin-impregnated motor windings geometry. Applied Thermal Engineering, 2018, 130, 854-864.	3.0	13
13	Microfluidic chambers using fluid walls for cell biology. Proceedings of the National Academy of Sciences of the United States of America, 2018, 115, E5926-E5933.	3.3	47
14	Guidelines for developing efficient thermal conduction and storage models within building energy simulations. Energy, 2017, 125, 211-222.	4.5	9
15	Microfluidics with fluid walls. Nature Communications, 2017, 8, 816.	5.8	96
16	Formation of droplet interface bilayers in a Teflon tube. Scientific Reports, 2016, 6, 34355.	1.6	6
17	Biocompatibility of fluids for multiphase drops-in-drops microfluidics. Biomedical Microdevices, 2016, 18, 114.	1.4	19
18	Growth of boundary-layer streaks due to free-stream turbulence. International Journal of Heat and Fluid Flow, 2016, 61, 272-283.	1.1	9

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19	Visualization of the vortex and reverse-flow structure of a separation bubble. Journal of Visualization, 2016, 19, 175-177.	1.1	2
20	Review and extension of pressure drop models applied to Taylor flow regimes. International Journal of Multiphase Flow, 2015, 68, 1-9.	1.6	23
21	Entropy Generation in Steady Laminar Boundary Layers with Pressure Gradients. Entropy, 2014, 16, 3808-3812.	1.1	2
22	An Investigation of the Pressure Drop Associated With Liquid-Liquid Slug Flows. , 2013, , .		2
23	An Automated Approach to Developing Compact and Accurate Building Models Utilising an Inverse Heat Transfer Approach. , 2013, , .		0
24	Entropy Generation in a Boundary Layer Transitioning Under the Influence of Freestream Turbulence. Journal of Fluids Engineering, Transactions of the ASME, 2011, 133, .	0.8	18
25	A study on the flow field and local heat transfer performance due to geometric scaling of centrifugal fans. International Journal of Heat and Fluid Flow, 2011, 32, 1160-1172.	1.1	7
26	Prandtl and capillary effects on heat transfer performance within laminar liquidâ€“gas slug flows. International Journal of Heat and Mass Transfer, 2011, 54, 4752-4761.	2.5	43
27	Criteria for Boundary Layer Transition. , 2011, , .		0
28	Quadrant analysis of a transitional boundary layer subject to free-stream turbulence. Journal of Fluid Mechanics, 2010, 658, 310-335.	1.4	52
29	Local heat transfer performance and exit flow characteristics of a miniature axial fan. International Journal of Heat and Fluid Flow, 2010, 31, 952-960.	1.1	15
30	Heat transfer model for gasâ€“liquid slug flows under constant flux. International Journal of Heat and Mass Transfer, 2010, 53, 3193-3201.	2.5	82
31	Novel micro-PIV study enables a greater understanding of nanoparticle suspension flows: nanofluids. Microfluidics and Nanofluidics, 2010, 8, 837-842.	1.0	22
32	Temperature distribution on an isoflux surface cooled by an impinging liquid jet with a 40Â° Wall Jet Swirl Generator. Journal of Visualization, 2010, 13, 177-178.	1.1	0
33	Active cooling of a mobile phone handset. Applied Thermal Engineering, 2010, 30, 2363-2369.	3.0	56
34	Heat transfer enhancement with laminar liquid-gas slug flows. , 2010, , .		1
35	Heat Transfer From Novel Target Surface Structures to a 3Ã—3 Array of Normally Impinging Water Jets. Journal of Thermal Science and Engineering Applications, 2010, 2, .	0.8	4
36	Simple Models for Laminar Thermally Developing Slug Flow in Non-Circular Ducts and Channels. , 2009, , .		1

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37	Thermal Performance of Two and Three Dimensional Radial Flow Heat Sinks. , 2009, , .		0
38	Pressure drop in two phase slug/bubble flows in mini scale capillaries. International Journal of Multiphase Flow, 2009, 35, 879-884.	1.6	94
39	Profile Scaling of Miniature Centrifugal Fans. Heat Transfer Engineering, 2009, 30, 130-137.	1.2	22
40	Flow Characteristics of Aluminium Oxide Nanofluids. , 2009, , .		0
41	Heat Transfer From Novel Target Surface Structures to a Normally Impinging, Submerged and Confined Water Jet. Journal of Thermal Science and Engineering Applications, 2009, 1, .	0.8	13
42	A New Correlation for Entropy Generation in Low Reynolds Number Turbulent Shear Layers. International Journal of Fluid Mechanics Research, 2009, 36, 566-572.	0.4	6
43	Effects of pressure gradients on entropy generation in the viscous layers of turbulent wall flows. International Journal of Heat and Mass Transfer, 2008, 51, 1104-1114.	2.5	29
44	Entropy Generation in the Viscous Parts of Turbulent Boundary Layers. Journal of Fluids Engineering, Transactions of the ASME, 2008, 130, .	0.8	23
45	On the Performance of Miniature Centrifugal Fans With Varying Blade Cord Length. , 2008, , .		1
46	Conditionally-Sampled Turbulent and Nonturbulent Measurements of Entropy Generation Rate in the Transition Region of Boundary Layers. Journal of Fluids Engineering, Transactions of the ASME, 2007, 129, 659-664.	0.8	5
47	Predicting Entropy Generation Rates in Transitional Boundary Layers Based on Intermittency. Journal of Turbomachinery, 2007, 129, 512-517.	0.9	8
48	Experimental investigation into the routes to bypass transition and the shear-sheltering phenomenon. Journal of Fluid Mechanics, 2007, 591, 461-479.	1.4	42
49	PIV Measurements of the Effects of Geometric Scale on Electronics Cooling Axial Fan Flow. , 2007, , .		2
50	Enhanced energy dissipation rates in laminar boundary layers subjected to elevated levels of freestream turbulence. Fluid Dynamics Research, 2007, 39, 305-319.	0.6	7
51	Interaction of quantitative PCR components with polymeric surfaces. Biomedical Microdevices, 2007, 9, 261-266.	1.4	26
52	PIV measurements of flow within plugs in a microchannel. Microfluidics and Nanofluidics, 2007, 3, 463-472.	1.0	78
53	An Investigation Using Wavelet Analysis Into Velocity Perturbations Under the Influence of Elevated Freestream Turbulence at Transition Onset. , 2006, , 1475.		2
54	Influence of segmenting fluids on efficiency, crossing point and fluorescence level in real time quantitative PCR. Biomedical Microdevices, 2006, 8, 59-64.	1.4	13

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55	Film Thickness for Two Phase Flow in a Microchannel. , 2006, , 207.		4
56	Segmenting Fluid Effect on PCR Reactions in Microfluidic Platforms. Biomedical Microdevices, 2005, 7, 269-272.	1.4	12
57	On The Use of Entropy to Predict Boundary Layer Stability. Entropy, 2004, 6, 375-387.	1.1	3