

David Newport

List of Publications by Year in descending order

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59
papers

580
citations

687220

13
h-index

713332

21
g-index

61
all docs

61
docs citations

61
times ranked

528
citing authors

#	ARTICLE	IF	CITATIONS
1	A review of optical interferometry techniques for VOC detection. <i>Sensors and Actuators A: Physical</i> , 2020, 302, 111782.	2.0	53
2	Gas Detection Using Portable Deep-UV Absorption Spectrophotometry: A Review. <i>Sensors</i> , 2019, 19, 5210.	2.1	43
3	Natural convection experiments on a heated horizontal cylinder in a differentially heated square cavity. <i>Experimental Thermal and Fluid Science</i> , 2013, 44, 199-208.	1.5	37
4	Micro photoionization detectors. <i>Sensors and Actuators B: Chemical</i> , 2019, 287, 86-94.	4.0	36
5	Regional mechanical and biochemical properties of the porcine cortical meninges. <i>Acta Biomaterialia</i> , 2018, 80, 237-246.	4.1	31
6	Utilising $\frac{1}{4}$ -PIV and pressure measurements to determine the viscosity of a DNA solution in a microchannel. <i>Experimental Thermal and Fluid Science</i> , 2006, 30, 843-852.	1.5	28
7	Digital interferometry: techniques and trends for fluid measurement. <i>Heat and Mass Transfer</i> , 2008, 44, 535-546.	1.2	25
8	The in vitro inertial positions and viability of cells in suspension under different in vivo flow conditions. <i>Scientific Reports</i> , 2020, 10, 1711.	1.6	24
9	DEVELOPMENT OF INTERFEROMETRIC TEMPERATURE MEASUREMENT PROCEDURES FOR MICROFLUID FLOW. <i>Microscale Thermophysical Engineering</i> , 2004, 8, 141-154.	1.2	18
10	Sperm selection by rheotaxis improves sperm quality and early embryo development. <i>Reproduction</i> , 2021, 161, 343-352.	1.1	17
11	Mixed convection cooling of horizontally mounted printed circuit board. <i>IEEE Transactions on Components and Packaging Technologies</i> , 2003, 26, 126-133.	1.4	16
12	Development of a Toluene Detector Based on Deep UV Absorption Spectrophotometry Using Glass and Aluminum Capillary Tube Gas Cells with a LED Source. <i>Micromachines</i> , 2019, 10, 193.	1.4	16
13	On the Thermal Interaction Between an Isothermal Cylinder and Its Isothermal Enclosure for Cylinder Rayleigh Numbers of Order 104. <i>Journal of Heat Transfer</i> , 2001, 123, 1052-1061.	1.2	15
14	Development and validation of a compact thermal model for an aircraft compartment. <i>Applied Thermal Engineering</i> , 2013, 61, 65-74.	3.0	15
15	Micro Milled Microfluidic Photoionization Detector for Volatile Organic Compounds. <i>Micromachines</i> , 2019, 10, 228.	1.4	15
16	Optimising the locations of thermally sensitive equipment in an aircraft crown compartment. <i>Aerospace Science and Technology</i> , 2013, 28, 391-400.	2.5	13
17	Hyperactivated stallion spermatozoa fail to exhibit a rheotaxis-like behaviour, unlike other species. <i>Scientific Reports</i> , 2018, 8, 16897.	1.6	13
18	An optical counting technique with vertical hydrodynamic focusing for biological cells. <i>Biomicrofluidics</i> , 2010, 4, 024110.	1.2	12

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19	Characterization of a modular microfluidic photoionization detector. <i>Sensors and Actuators B: Chemical</i> , 2020, 324, 128667.	4.0	11
20	Full field measurement at the micro-scale using micro-interferometry. <i>Microfluidics and Nanofluidics</i> , 2008, 5, 77-87.	1.0	10
21	Experimental and numerical analysis of thermally dissipating equipment in an aircraft confined compartment. <i>Applied Thermal Engineering</i> , 2014, 73, 869-878.	3.0	10
22	Low-volume PEEK gas cell for BTEX detection using portable deep-UV absorption spectrophotometry. <i>Spectrochimica Acta - Part A: Molecular and Biomolecular Spectroscopy</i> , 2020, 243, 118727.	2.0	10
23	Development of Compact Thermal Fluid Models at the Electronic Equipment Level. <i>Journal of Thermal Science and Engineering Applications</i> , 2012, 4, .	0.8	9
24	Ventilation and internal structure effects on naturally induced flows in a static aircraft wing. <i>Applied Thermal Engineering</i> , 2012, 32, 49-58.	3.0	9
25	Gradients in the in vivo intestinal stem cell compartment and their in vitro recapitulation in mimetic platforms. <i>Cytokine and Growth Factor Reviews</i> , 2021, 60, 76-88.	3.2	9
26	The mechanical responses of advecting cells in confined flow. <i>Biomicrofluidics</i> , 2020, 14, 031501.	1.2	8
27	Liquid Diffusion Measurement in Micro/Mini Channels From Full-Field Digital Phase Measurement Interferometry (PMI). , 2004, , 429.		7
28	The influence of cell elastic modulus on inertial positions in Poiseuille microflows. <i>Biophysical Journal</i> , 2021, 120, 855-865.	0.2	7
29	Review of Experimental Modelling in Vascular Access for Hemodialysis. <i>Cardiovascular Engineering and Technology</i> , 2017, 8, 330-341.	0.7	7
30	Towards the prediction of flow-induced shear stress distributions experienced by breast cancer cells in the lymphatics. <i>Biomechanics and Modeling in Mechanobiology</i> , 2017, 16, 2051-2062.	1.4	6
31	Arduino control of a pulsatile flow rig. <i>Medical Engineering and Physics</i> , 2018, 51, 67-71.	0.8	6
32	On Gaseous Free-Convection Heat Transfer With Well-Defined Boundary Conditions. <i>Journal of Heat Transfer</i> , 2000, 122, 661-668.	1.2	4
33	Opportunities for Studying the Hydrodynamic Context for Breast Cancer Cell Spread Through Lymph Flow. <i>Lymphatic Research and Biology</i> , 2017, 15, 204-219.	0.5	4
34	A Sensitive and Portable Deep-UV Absorbance Detector with a Microliter Gas Cell Compatible with Micro GC. <i>Chemosensors</i> , 2021, 9, 63.	1.8	4
35	A Comparison of Micro-PIV Experiments in a Mini-Channel to Numerical and Analytical Solutions. , 2003, , 903.		3
36	Full-field low-frequency heterodyne interferometry using CMOS and CCD cameras with online phase processing. , 2005, 5856, 23.		3

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37	A Compact Modeling Approach to Enhance Collaborative Design of Thermal-Fluid Systems. Journal of Electronic Packaging, Transactions of the ASME, 2014, 136, .	1.2	3
38	A heterodyne Mach-Zehnder Interferometer employing static and dynamic phase demodulation techniques for live-cell imaging. , 2010, , .		2
39	Digital Moiré Subtraction Interferometry (DMS) for Electronics Cooling Applications in Enclosures. Journal of Electronic Packaging, Transactions of the ASME, 2010, 132, .	1.2	2
40	Thermal Performance Characteristics of Integrated Cooling Solutions Consisting of Multiple Miniature Fans. Journal of Physics: Conference Series, 2012, 395, 012029.	0.3	2
41	Transient natural convection in a conducting enclosure heated from above. Journal of Visualization, 2013, 16, 1-4.	1.1	2
42	Cell specific variation in viability in suspension in in vitro Poiseuille flow conditions. Scientific Reports, 2021, 11, 13997.	1.6	2
43	Free Convection Thermal Interaction Between 2D Components Mounted on a Vertically Oriented PCB. , 2002, , .		2
44	Development of Interferometric Temperature Measurement Procedures for Microfluid Flow. , 2003, , 809.		1
45	Measurement of Transient Natural Convection in Non-Ventilated Aircraft Compartments. , 2008, , .		1
46	Quantitative measurement of gas pressure drop along T-shaped micro channels by interferometry. Journal of Physics: Conference Series, 2012, 362, 012032.	0.3	1
47	Microfluidique pour la détection géométrique de cancers. Houille Blanche, 2006, 92, 26-33.	0.3	1
48	Influence of Concentration and Number of Image Pairs in $\frac{1}{4}$ -PIV Experiments. , 2007, , .		1
49	Influence of Wall Compliance on the Flow Patterns in a Patient-Specific Brachio-Cephalic Arterio-Venous Fistula. Biomechanics, 2022, 2, 158-173.	0.5	1
50	Natural convection cooling of aircraft wingbox structures during turnaround period. Applied Thermal Engineering, 2022, 215, 118844.	3.0	1
51	Experimental evaluation of a patient specific Brachio-Cephalic Arterio Venous Fistula (AVF): Velocity flow conditions under steady and pulsatile waveforms. Medical Engineering and Physics, 2022, 106, 103834.	0.8	1
52	Thermally Induced Flow Structures in Aircraft Wing Compartments. , 2008, , .		0
53	Development of Compact Thermal-Fluid Models at the Electronic Equipment Level. , 2011, , .		0
54	Fabrication of Microchannels by Stereolithography for Optical Use. , 2011, , .		0

#	ARTICLE	IF	CITATIONS
55	Gas Mass Flow Rate Measurement in T-Shaped Microchannels in Slip Flow Regime. , 2011, , .		0
56	Thermal Analysis of a Micro-Polymerase Chain Reaction Device. , 2004, , .		0
57	An Analysis of Natural Convection in Leading Edge Wing Compartments. , 2008, , .		0
58	Development on Manufacturing Process for Integrating Glass Plates With Microchannel Walls Made by Micro Stereolithography. , 2013, , .		0
59	O-295â€fPassive sperm sorting does not select for sperm with lower DNA fragmentation levels compared to density gradient centrifugation in split samples. Human Reproduction, 2022, 37, .	0.4	0