

Michael G Olsen

List of Publications by Year in descending order

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Version: 2024-02-01

60
papers

1,477
citations

257101

24
h-index

329751

37
g-index

60
all docs

60
docs citations

60
times ranked

1065
citing authors

#	ARTICLE	IF	CITATIONS
1	Brownian motion and correlation in particle image velocimetry. Optics and Laser Technology, 2000, 32, 621-627.	2.2	110
2	Validation of an analytical solution for depth of correlation in microscopic particle image velocimetry. Measurement Science and Technology, 2004, 15, 318-327.	1.4	89
3	An intelligent cooling system and control model for improved engine thermal management. Applied Thermal Engineering, 2018, 128, 253-263.	3.0	67
4	Investigation of turbulent mixing in a confined planar-jet reactor. AIChE Journal, 2005, 51, 2649-2664.	1.8	64
5	Investigation of the flow field in a three-dimensional Confined Impinging Jets Reactor by means of microPIV and DNS. Chemical Engineering Journal, 2011, 166, 294-305.	6.6	62
6	A Continuous-Flow Polymerase Chain Reaction Microchip With Regional Velocity Control. Journal of Microelectromechanical Systems, 2006, 15, 223-236.	1.7	61
7	Experimental measurement of oxygen mass transfer and bubble size distribution in an air-water multiphase Taylor-Couette vortex bioreactor. Chemical Engineering Journal, 2015, 279, 286-296.	6.6	54
8	Turbulent and transitional velocity measurements in a rectangular microchannel using microscopic particle image velocimetry. Experimental Thermal and Fluid Science, 2005, 29, 435-446.	1.5	52
9	A microscale multi-inlet vortex nanoprecipitation reactor: Turbulence measurement and simulation. Applied Physics Letters, 2009, 94, 204104.	1.5	51
10	The Depth of Correlation in Micro-PIV for High Numerical Aperture and Immersion Objectives. Journal of Fluids Engineering, Transactions of the ASME, 2006, 128, 883-886.	0.8	50
11	MicroPIV measurements of turbulent flow in square microchannels with hydraulic diameters from 200 μ m to 640 μ m. International Journal of Heat and Fluid Flow, 2006, 27, 123-134.	1.1	49
12	Planar velocity measurements in a weakly compressible mixing layer. Journal of Fluid Mechanics, 2003, 486, 51-77.	1.4	47
13	Out-of-Plane Motion Effects in Microscopic Particle Image Velocimetry. Journal of Fluids Engineering, Transactions of the ASME, 2003, 125, 895-901.	0.8	45
14	Turbulence in a microscale planar confined impinging-jets reactor. Lab on A Chip, 2009, 9, 1110.	3.1	45
15	Aspect Ratio Effects on Turbulent and Transitional Flow in Rectangular Microchannels as Measured With MicroPIV. Journal of Fluids Engineering, Transactions of the ASME, 2006, 128, 305.	0.8	41
16	Turbulent precipitation in micromixers: CFD simulation and flow field validation. Chemical Engineering Research and Design, 2010, 88, 1182-1193.	2.7	39
17	Validation of LES predictions for turbulent flow in a Confined Impinging Jets Reactor. Applied Mathematical Modelling, 2011, 35, 1591-1602.	2.2	37
18	Simultaneous velocity and concentration field measurements of passive-scalar mixing in a confined rectangular jet. Experiments in Fluids, 2007, 42, 847-862.	1.1	35

#	ARTICLE	IF	CITATIONS
19	Experimental investigation of the effect of ethyl alcohol surfactant on oxygen mass transfer and bubble size distribution in an air-water multiphase Taylor-Couette vortex bioreactor. <i>Chemical Engineering Journal</i> , 2017, 319, 288-296.	6.6	34
20	Flow Characteristics in a Scaled-up Multi-inlet Vortex Nanoprecipitation Reactor. <i>Industrial & Engineering Chemistry Research</i> , 2015, 54, 4512-4525.	1.8	32
21	Reappearance of azimuthal waves in turbulent Taylor-Couette flow at large aspect ratio. <i>Chemical Engineering Science</i> , 2005, 60, 5555-5568.	1.9	30
22	Turbulent mixing in a confined rectangular wake. <i>Chemical Engineering Science</i> , 2006, 61, 6946-6962.	1.9	27
23	Thermal comparison between ceiling diffusers and fabric ductwork diffusers for green buildings. <i>Energy and Buildings</i> , 2011, 43, 2973-2987.	3.1	27
24	Dynamic delayed detached eddy simulation of a multi-inlet vortex reactor. <i>AIChE Journal</i> , 2016, 62, 2570-2578.	1.8	27
25	Measurements of turbulence in a microscale multi-inlet vortex nanoprecipitation reactor. <i>Journal of Micromechanics and Microengineering</i> , 2013, 23, 075005.	1.5	23
26	Stochastic Estimation of Large Structures in an Incompressible Mixing Layer. <i>AIAA Journal</i> , 2002, 40, 2431-2438.	1.5	22
27	Examination of large-scale structures in turbulent microchannel flow. <i>Experiments in Fluids</i> , 2006, 40, 733-743.	1.1	21
28	Turbulent mixing in the confined swirling flow of a multi-inlet vortex reactor. <i>AIChE Journal</i> , 2017, 63, 2409-2419.	1.8	19
29	Directional dependence of depth of correlation due to in-plane fluid shear in microscopic particle image velocimetry. <i>Measurement Science and Technology</i> , 2009, 20, 015402.	1.4	18
30	Confocal imaging of laminar and turbulent mixing in a microscale multi-inlet vortex nanoprecipitation reactor. <i>Applied Physics Letters</i> , 2011, 99, 204103.	1.5	17
31	An adaptive model for gas-liquid mass transfer in a Taylor vortex reactor. <i>International Journal of Heat and Mass Transfer</i> , 2015, 91, 433-445.	2.5	17
32	A Batchelor Vortex Model for Mean Velocity of Turbulent Swirling Flow in a Macroscale Multi-Inlet Vortex Reactor. <i>Journal of Fluids Engineering, Transactions of the ASME</i> , 2015, 137, .	0.8	16
33	Measurement volume defined by peak-finding algorithms in cross-correlation particle image velocimetry. <i>Measurement Science and Technology</i> , 2001, 12, N14-N16.	1.4	14
34	Investigation of passive scalar mixing in a confined rectangular wake using simultaneous PIV and PLIF. <i>Chemical Engineering Science</i> , 2010, 65, 3372-3383.	1.9	13
35	Experimental characterization of turbulent mixing performance using simultaneous stereoscopic particle image velocimetry and planar laser-induced fluorescence. <i>Experiments in Fluids</i> , 2019, 60, 1.	1.1	12
36	Depth of correlation reduction due to out-of-plane shear in microscopic particle image velocimetry. <i>Measurement Science and Technology</i> , 2010, 21, 105406.	1.4	11

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37	A delayed detached eddy simulation model with low Reynolds number correction for transitional swirling flow in a multi-inlet vortex nanoprecipitation reactor. <i>Chemical Engineering Science</i> , 2019, 193, 66-75.	1.9	11
38	Droplet coalescence and phase separation in a topical ointment: Effects of fluid shear and temperature. <i>International Journal of Pharmaceutics</i> , 2020, 591, 119872.	2.6	10
39	Effect of inlet conditions on the accuracy of large eddy simulations of a turbulent rectangular wake. <i>Chemical Engineering Journal</i> , 2014, 250, 175-189.	6.6	9
40	Population, characteristics and kinematics of vortices in a confined rectangular jet with a co-flow. <i>Experiments in Fluids</i> , 2011, 50, 1473-1493.	1.1	8
41	Visualization of turbulent reactive mixing in a planar microscale confined impinging-jet reactor. <i>Journal of Micromechanics and Microengineering</i> , 2011, 21, 115006.	1.5	8
42	Planar velocity measurements in a weakly compressible mixing layer. , 1999, , .		7
43	Micromixing visualization and quantification in a microscale multi-inlet vortex nanoprecipitation reactor using confocal-based reactive micro laser-induced fluorescence. <i>Biomicrofluidics</i> , 2014, 8, 044102.	1.2	6
44	Turbulence measurements in a rectangular mesoscale confined impinging jets reactor. <i>Experiments in Fluids</i> , 2012, 53, 1929-1941.	1.1	5
45	Large eddy simulation of passive scalar transport in a high Schmidt number turbulent incompressible wake with experimental validation. <i>Chemical Engineering Science</i> , 2015, 137, 862-874.	1.9	5
46	Detailed experimental and numerical investigation of fluidâ€“particle interactions of a fixed train of spherical particles inside a square duct. <i>International Journal of Multiphase Flow</i> , 2018, 103, 16-29.	1.6	5
47	Flow Regimes in Two-Phase Hexane/Water Semibatch Vertical Taylor Vortex Flow. <i>Journal of Fluids Engineering, Transactions of the ASME</i> , 2019, 141, .	0.8	5
48	Random error due to Brownian motion in microscopic particle image velocimetry. <i>Measurement Science and Technology</i> , 2007, 18, 1963-1972.	1.4	4
49	Droplet size distributions in liquidâ€“liquid semi-batch Taylor vortex flow. <i>AIP Advances</i> , 2020, 10, 085316.	0.6	4
50	Conditional statistics of passive-scalar mixing in a confined wake flow. <i>Physics of Fluids</i> , 2008, 20, 077105.	1.6	3
51	Unsteady velocity field measurements at the outlet of an automotive supercharger using particle image velocimetry (PIV). <i>Experimental Thermal and Fluid Science</i> , 2009, 33, 405-423.	1.5	2
52	Jet breakup regimes in liquidâ€“liquid Taylor vortex flow. <i>International Journal of Multiphase Flow</i> , 2020, 131, 103401.	1.6	2
53	Evolution of bubble size distribution, number density, and shape in semiâ€“batch vertical gasâ€“liquid Taylor vortex flow. <i>AIChE Journal</i> , 2020, 66, e17003.	1.8	2
54	Coherent structure characteristics of the swirling flow during turbulent mixing in a multi-inlet vortex reactor. <i>Physics of Fluids</i> , 2021, 33, .	1.6	2

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55	Coalescence-induced phase separation of an oil in water emulsion under controlled shear and temperature conditions. <i>Chemical Engineering Research and Design</i> , 2022, 182, 517-524.	2.7	1
56	Validation of Analytical Solution for Depth-of-Correlation in Microscopic Particle Image Velocimetry. , 2003, , 559.		0
57	Investigation of Pseudo Turbulent Scalar Transport in Two Phase Fluid Flow and Passive Scalar Mixing Using Simultaneous SPIV/PLIF. , 2014, , .		0
58	Eulerian conditional statistics of turbulent flow in a macroscale multi-inlet vortex chemical reactor. <i>Physics of Fluids</i> , 2019, 31, 115106.	1.6	0
59	Conditional Statistics for Passive-Scalar Mixing in Confined Turbulent Shear Flows. , 2006, , .		0
60	Turbulence in Microchannels. , 2014, , 1-9.		0