J Mark Meacham

List of Publications by Year
in descending order

37 papers	857 citations	516710 16 h-index	477307 29 g-index
37 all docs	37 docs citations	37 times ranked	1052 citing authors

#	Article	IF	Citations
1	Phototrophic extracellular electron uptake is linked to carbon dioxide fixation in the bacterium Rhodopseudomonas palustris. Nature Communications, 2019, 10, 1355.	12.8	101
2	Physical Methods for Intracellular Delivery: Practical Aspects from Laboratory Use to Industrial-Scale Processing. Journal of the Association for Laboratory Automation, 2014, 19, 1-18.	2.8	88
3	Medication eluting devices for the field of OBGYN (MEDOBGYN): 3D printed biodegradable hormone eluting constructs, a proof of concept study. PLoS ONE, 2017, 12, e0182929.	2.5	82
4	Droplet formation and ejection from a micromachined ultrasonic droplet generator: Visualization and scaling. Physics of Fluids, 2005, 17, 100605.	4.0	79
5	Micromachined ultrasonic droplet generator based on a liquid horn structure. Review of Scientific Instruments, 2004, 75, 1347-1352.	1.3	47
6	Photoferrotrophs Produce a PioAB Electron Conduit for Extracellular Electron Uptake. MBio, 2019, 10, .	4.1	40
7	Electrosonic ejector microarray for drug and gene delivery. Biomedical Microdevices, 2008, 10, 299-308.	2.8	37
8	Tumor-on-a-chip platform to interrogate the role of macrophages in tumor progression. Integrative Biology (United Kingdom), 2020, 12, 221-232.	1.3	37
9	Enhanced intracellular delivery via coordinated acoustically driven shear mechanoporation and electrophoretic insertion. Scientific Reports, 2018, 8, 3727.	3.3	32
10	Nanoelectrospray ion generation for high-throughput mass spectrometry using a micromachined ultrasonic ejector array. Applied Physics Letters, 2005, 86, 203110.	3.3	31
11	Patient-derived small intestinal myofibroblasts direct perfused, physiologically responsive capillary development in a microfluidic Gut-on-a-Chip Model. Scientific Reports, 2020, 10, 3842.	3.3	29
12	Microchannel component technology for system-wide application in ammonia/water absorption heat pumps. International Journal of Refrigeration, 2011, 34, 1184-1196.	3.4	27
13	Counterflow Rejection of Adsorbing Proteins for Characterization of Biomolecular Interactions by Temperature Gradient Focusing. Analytical Chemistry, 2008, 80, 172-178.	6.5	26
14	Using pattern homogenization of binary grayscale masks to fabricate microfluidic structures with 3D topography. Lab on A Chip, 2007, 7, 1567.	6.0	24
15	Analytical Performance of a Venturi-Assisted Array of Micromachined Ultrasonic Electrosprays Coupled to Ion Trap Mass Spectrometry for the Analysis of Peptides and Proteins. Analytical Chemistry, 2007, 79, 8154-8161.	6.5	23
16	Comparison of the internal energy deposition of venturi-assisted electrospray ionization and a venturi-assisted array of micromachined ultrasonic electrosprays (AMUSE). Journal of the American Society for Mass Spectrometry, 2008, 19, 1320-1329.	2.8	18
17	Development of aptamerâ€based affinity assays using temperature gradient focusing: Minimization of the limit of detection. Electrophoresis, 2008, 29, 3456-3465.	2.4	12
18	Photoferrotrophy and phototrophic extracellular electron uptake is common in the marine anoxygenic phototroph Rhodovulum sulfidophilum. ISME Journal, 2021, 15, 3384-3398.	9.8	12

#	Article	IF	Citations
19	MICROMACHINED ULTRASONIC ATOMIZER FOR LIQUID FUELS. Small Group Research, 2008, 18, 163-190.	2.7	12
20	An integrated MEMS infrastructure for fuel processing: hydrogen generation and separation for portable power generation. Journal of Micromechanics and Microengineering, 2007, 17, S257-S264.	2.6	11
21	Design, modeling, and experimental validation of an acoustofluidic platform for nanoscale molecular synthesis and detection. Physics of Fluids, 2019, 31, 082007.	4.0	11
22	Acoustic trap-and-release for rapid assessment of cell motility. Soft Matter, 2019, 15, 4266-4275.	2.7	11
23	Motile cells as probes for characterizing acoustofluidic devices. Lab on A Chip, 2021, 21, 521-533.	6.0	11
24	Micromachined Ultrasonic Print-Head for Deposition of High-Viscosity Materials. Journal of Manufacturing Science and Engineering, Transactions of the ASME, 2010, 132, .	2.2	9
25	Thermal considerations for microswimmer trap-and-release using standing surface acoustic waves. Lab on A Chip, 2021, 21, 2534-2543.	6.0	9
26	Tuning the Coupled-Domain Response for Efficient Ultrasonic Droplet Generation. IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control, 2018, 65, 1893-1904.	3.0	8
27	Augmented longitudinal acoustic trap for scalable microparticle enrichment. Biomicrofluidics, 2018, 12, 034110.	2.4	8
28	Fuel Atomization From a Micromachined Ultrasonic Droplet Generator: Visualization, Scaling, and Modeling. , 2006, , 117.		7
29	Antibody Conjugate Assembly on Ultrasound-Confined Microcarrier Particles. ACS Biomaterials Science and Engineering, 2020, 6, 6108-6116.	5.2	6
30	Rapid measurement of the local pressure amplitude in microchannel acoustophoresis using motile cells. Journal of the Acoustical Society of America, 2021, 150, 1565-1576.	1.1	4
31	Spray characteristics of an ultrasonic microdroplet generator with a continuously variable operating frequency. Journal of the Acoustical Society of America, 2021, 150, 1300-1310.	1.1	3
32	Evaporation-enhanced, dynamically-adaptive air (gas)-cooled heat sink for thermal management of high heat dissipation devices. Intersociety Conference on Thermal and Thermomechanical Phenomena in Electronic Systems, 2008, , .	0.0	1
33	Protection levels of N95-level respirator substitutes proposed during the COVID-19 pandemic: safety concerns and quantitative evaluation procedures. BMJ Open, 2021, 11, e045557.	1.9	1
34	Reduced Order Modeling and Experimental Investigation of Acoustic Particle Manipulation in Complex 3D Geometries. , 2016, , .		0
35	Micromachined Ultrasonic ElectroSpray Source Array for High Throughput Mass Spectrometry. , 2004, , .		0
36	Acoustofluidic platform for in-channel immunoassays. , 2019, , .		0

#	Article	IF	Citations
37	10.1063/1.5100149.1. , 2019, , .		0