David A Issadore

List of Publications by Year
in descending order

72 papers	4,181 citations	94433 37 h-index	114465 63 g-index
76 all docs	76 docs citations	76 times ranked	5948 citing authors

#	Article	IF	Citations
1	Injectable Granular Hydrogels with Multifunctional Properties for Biomedical Applications. Advanced Materials, 2018, 30, e1705912.	21.0	224
2	Ultrasensitive Clinical Enumeration of Rare Cells ex Vivo Using a Micro-Hall Detector. Science Translational Medicine, 2012, 4, 141ra92.	12.4	211
3	Combining Machine Learning and Nanofluidic Technology To Diagnose Pancreatic Cancer Using Exosomes. ACS Nano, 2017, 11, 11182-11193.	14.6	196
4	Detection and isolation of circulating exosomes and microvesicles for cancer monitoring and diagnostics using micro-/nano-based devices. Analyst, The, 2016, 141, 450-460.	3.5	175
5	Magnetic Nanoparticles and microNMR for Diagnostic Applications. Theranostics, 2012, 2, 55-65.	10.0	152
6	Silicon and glass very large scale microfluidic droplet integration for terascale generation of polymer microparticles. Nature Communications, 2018, 9, 1222.	12.8	148
7	Integrated circuit/microfluidic chip to programmably trap and move cells and droplets with dielectrophoresis. Lab on A Chip, 2008, 8, 81-87.	6.0	144
8	Microfluidic formulation of nanoparticles for biomedical applications. Biomaterials, 2021, 274, 120826.	11.4	143
9	Mobile platform for rapid subâ€“picogram-per-milliliter, multiplexed, digital droplet detection of proteins. Proceedings of the National Academy of Sciences of the United States of America, 2019, 116, 4489-4495.	7.1	133
10	Ubiquitous Detection of Gram-Positive Bacteria with Bioorthogonal Magnetofluorescent Nanoparticles. ACS Nano, 2011, 5, 8834-8841.	14.6	127
11	Miniature magnetic resonance system for point-of-care diagnostics. Lab on A Chip, 2011, 11, 2282.	6.0	124
12	Scalable mRNA and siRNA Lipid Nanoparticle Production Using a Parallelized Microfluidic Device. Nano Letters, 2021, 21, 5671-5680.	9.1	120
13	Kilo-scale droplet generation in three-dimensional monolithic elastomer device (3D MED). Lab on A Chip, 2015, 15, 4387-4392.	6.0	119
14	Machine learning to detect signatures of disease in liquid biopsies â€“ a user's guide. Lab on A Chip, 2018, 18, 395-405.	6.0	106
15	Proteomic and biological profiling of extracellular vesicles from Alzheimer's disease human brain tissues. Alzheimer's and Dementia, 2020, 16, 896-907.	0.8	105
16	Use of magnetic fields and nanoparticles to trigger drug release and improve tumor targeting. Wiley Interdisciplinary Reviews: Nanomedicine and Nanobiotechnology, 2019, 11, e1571.	6.1	97
17	Microwave dielectric heating of drops in microfluidic devices. Lab on A Chip, 2009, 9, 1701.	6.0	86
18	Recent developments in scale-up of microfluidic emulsion generation via parallelization. Korean Journal of Chemical Engineering, 2016, 33, 1757-1766.	2.7	83

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19	Magnetic sensing technology for molecular analyses. Lab on A Chip, 2014, 14, 2385.	6.0	79
20	Miniaturized nuclear magnetic resonance platform for detection and profiling of circulating tumor cells. Lab on A Chip, 2014, 14, 14-23.	6.0	70
21	A Multianalyte Panel Consisting of Extracellular Vesicle miRNAs and mRNAs, cfDNA, and CA19-9 Shows Utility for Diagnosis and Staging of Pancreatic Ductal Adenocarcinoma. Clinical Cancer Research, 2020, 26, 3248-3258.	7.0	64
22	Smartphone-enabled optofluidic exosome diagnostic for concussion recovery. Scientific Reports, 2016, 6, 31215.	3.3	64
23	Diagnostic technologies for circulating tumour cells and exosomes. Bioscience Reports, 2016, 36, e00292.	2.4	63
24	miRNA Profiling of Magnetic Nanoporeâ€“Isolated Extracellular Vesicles for the Diagnosis of Pancreatic Cancer. Cancer Research, 2018, 78, 3688-3697.	0.9	63
25	Specific Pathogen Detection Using Bioorthogonal Chemistry and Diagnostic Magnetic Resonance. Bioconjugate Chemistry, 2011, 22, 2390-2394.	3.6	59
26	Use of Oppositely Polarized External Magnets To Improve the Accumulation and Penetration of Magnetic Nanocarriers into Solid Tumors. ACS Nano, 2020, 14, 142-152.	14.6	59
27	Hybrid soft-lithography/laser machined microchips for the parallel generation of droplets. Lab on A Chip, 2013, 13, 4750.	6.0	58
28	Î¼Hall Chip for Sensitive Detection of Bacteria. Advanced Healthcare Materials, 2013, 2, 1224-1228.	7.6	55
29	Diagnosis of traumatic brain injury using miRNA signatures in nanomagnetically isolated brain-derived extracellular vesicles. Lab on A Chip, 2018, 18, 3617-3630.	6.0	53
30	Multi-Dimensional Mapping of Brain-Derived Extracellular Vesicle MicroRNA Biomarker for Traumatic Brain Injury Diagnostics. Journal of Neurotrauma, 2020, 37, 2424-2434.	3.4	50
31	Self-assembled magnetic filter for highly efficient immunomagnetic separation. Lab on A Chip, 2011, 11, 147-151.	6.0	49
32	Ultra-high throughput detection (1 million droplets per second) of fluorescent droplets using a cell phone camera and time domain encoded optofluidics. Lab on A Chip, 2017, 17, 1083-1094.	6.0	49
33	Anisotropic Rodâ€Shaped Particles Influence Injectable Granular Hydrogel Properties and Cell Invasion. Advanced Materials, 2022, 34, e2109194.	21.0	48
34	Rare cell isolation and profiling on a hybrid magnetic/size-sorting chip. Biomicrofluidics, 2013, 7, 54107.	2.4	46
35	Microfluidic Cell Sorter (Î¼FCS) for Onâ€chip Capture and Analysis of Single Cells. Advanced Healthcare Materials, 2012, 1, 432-436.	7.6	43
36	Microchip-based detection of magnetically labeled cancer biomarkers. Advanced Drug Delivery Reviews, 2014, 66, 101-109.	13.7	43

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37	Liter-scale production of uniform gas bubbles via parallelization of flow-focusing generators. Lab on A Chip, 2017, 17, 2667-2673.	6.0	40
38	A magnetic micropore chip for rapid (<1 hour) unbiased circulating tumor cell isolation and in situ RNA analysis. Lab on A Chip, 2017, 17, 3086-3096.	6.0	38
39	Microwave dielectric heating of non-aqueous droplets in a microfluidic device for nanoparticle synthesis. Nanoscale, 2013, 5, 5468.	5.6	36
40	Scaling of transverse nuclear magnetic relaxation due to magnetic nanoparticle aggregation. Journal of Magnetism and Magnetic Materials, 2010, 322, 3122-3126.	2.3	32
41	Radiofrequencyâ€Triggered Drug Release from Nanoliposomes with Millimeterâ€Scale Resolution Using a Superimposed Static Gating Field. Small, 2018, 14, e1802563.	10.0	30
42	Robust Microfabrication of Highly Parallelized Three-Dimensional Microfluidics on Silicon. Scientific Reports, 2019, 9, 12213.	3.3	30
43	A multi-scale PDMS fabrication strategy to bridge the size mismatch between integrated circuits and microfluidics. Lab on A Chip, 2014, 14, 4552-4558.	6.0	29
44	Scaling up the throughput of microfluidic droplet-based materials synthesis: A review of recent progress and outlook. Applied Physics Reviews, 2021, 8, 031304.	11.3	27
45	High-Voltage Dielectrophoretic and Magnetophoretic Hybrid Integrated Circuit/Microfluidic Chip. Journal of Microelectromechanical Systems, 2009, 18, 1220-1225.	2.5	26
46	A microfluidic microprocessor: controlling biomimetic containers and cells using hybrid integrated circuit/microfluidic chips. Lab on A Chip, 2010, 10, 2937.	6.0	26
47	Ultrasensitive Single Extracellular Vesicle Detection Using High Throughput Droplet Digital Enzyme-Linked Immunosorbent Assay. Nano Letters, 2022, 22, 4315-4324.	9.1	26
48	Trackâ€Etched Magnetic Micropores for Immunomagnetic Isolation of Pathogens. Advanced Healthcare Materials, 2014, 3, 1078-1085.	7.6	25
49	Clinical Applications of Extracellular Vesicles in the Diagnosis and Treatment of Traumatic Brain Injury. Journal of Neurotrauma, 2020, 37, 2045-2056.	3.4	25
50	Multiplexed detection of viral infections using rapid in situ RNA analysis on a chip. Lab on A Chip, 2015, 15, 3170-3182.	6.0	22
51	Nanoparticle-Mediated Measurement of Targetâ€“Drug Binding in Cancer Cells. ACS Nano, 2011, 5, 9216-9224.	14.6	21
52	Surface Topography-Adaptive Robotic Superstructures for Biofilm Removal and Pathogen Detection on Human Teeth. ACS Nano, 2022, 16, 11998-12012.	14.6	20
53	Microfluidic diafiltration-on-chip using an integrated magnetic peristaltic micropump. Lab on A Chip, 2017, 17, 3796-3803.	6.0	19
54	Extracellular vesicles as distinct biomarker reservoirs for mild traumatic brain injury diagnosis. Brain Communications, 2021, 3, fcab151.	3.3	19

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55	Miniaturized, multiplexed readout of droplet-based microfluidic assays using time-domain modulation. Lab on A Chip, 2014, 14, 4638-4646.	6.0	17
56	Scalable Synthesis of Janus Particles with High Naturality. ACS Sustainable Chemistry and Engineering, 2020, 8, 17680-17686.	6.7	16
57	A web-based automated machine learning platform to analyze liquid biopsy data. Lab on A Chip, 2020, 20, 2166-2174.	6.0	15
58	Microâ€•and Nanoâ€Đevices for Studying Subcellular Biology. Small, 2021, 17, e2005793.	10.0	15
59	Laser micromachined hybrid open/paper microfluidic chips. Biomicrofluidics, 2013, 7, 064109.	2.4	14
60	Advancing microfluidic diagnostic chips into clinical use: a review of current challenges and opportunities. Lab on A Chip, 2022, 22, 3110-3121.	6.0	14
61	Toolbox for Exploring Modular Gene Regulation in Synthetic Biology Training. ACS Synthetic Biology, 2016, 5, 781-785.	3.8	13
62	Moldable Perfluoropolyetherâ€“Polyethylene Glycol Networks with Tunable Wettability and Solvent Resistance for Rapid Prototyping of Droplet Microfluidics. Chemistry of Materials, 2018, 30, 2583-2588.	6.7	13
63	Large-Scale Production of Compound Bubbles Using Parallelized Microfluidics for Efficient Extraction of Metal Ions. Lab on A Chip, 2019, 19, 665-673.	6.0	12
64	Proteomic Profiling of Extracellular Vesicles Separated from Plasma of Former National Football League Players at Risk for Chronic Traumatic Encephalopathy. , 2021, 12, 1363.		12
65	Point-of-Care Rare Cell Cancer Diagnostics. Methods in Molecular Biology, 2015, 1256, 123-137.	0.9	9
66	Ultrahigh Throughput Onâ€Chip Synthesis of Microgels with Tunable Mechanical Properties. Advanced Materials Technologies, 2022, 7, 2101160.	5.8	8
67	Extracellular Vesicleâ€“Based Multianalyte Liquid Biopsy as a Diagnostic for Cancer. Annual Review of Biomedical Data Science, 2022, 5, 269-292.	6.5	6
68	Magnetic Nickel iron Electroformed Trap (MagNET): a master/replica fabrication strategy for ultra-high throughput (>100 mL h^{â^1}) immunomagnetic sorting. Lab on A Chip, 2016, 16, 3049-3057.	6.0	5
69	Anisotropic Rodâ€Shaped Particles Influence Injectable Granular Hydrogel Properties and Cell Invasion (Adv. Mater. 12/2022). Advanced Materials, 2022, 34, .	21.0	5
70	Pico-washing: simultaneous liquid addition and removal for continuous-flow washing of microdroplets. Microsystems and Nanoengineering, 2022, 8, 46.	7.0	5
71	Multicolor detection of fluorescent droplets on a cell phone using time domain encoded optofluidics. , 2017, , .		1
72	Magnetic Separation: Track-Etched Magnetic Micropores for Immunomagnetic Isolation of Pathogens (Adv. Healthcare Mater. 7/2014). Advanced Healthcare Materials, 2014, 3, 950-950.	7.6	0