Yi Zhang

List of Publications by Year
in descending order

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92	4,609	126708	98622
papers	citations	33 h-index	67 g-index

95	95	95	5514
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Multiâ€Color Au/Ag Nanoparticles for Multiplexed Lateral Flow Assay Based on Spatial Separation and Color Coâ€Localization. Advanced Functional Materials, 2022, 32, .	7.8	15
2	A perspective on magnetic microfluidics: Towards an intelligent future. Biomicrofluidics, 2022, 16, 011301.	1.2	11
3	Magnetic Soft Millirobots 3D Printed by Circulating Vat Photopolymerization to Manipulate Droplets Containing Hazardous Agents for In Vitro Diagnostics. Advanced Materials, 2022, 34, e2200061.	11.1	21
4	Multifunctional Virus Manipulation with Largeâ€Scale Arrays of Allâ€Dielectric Resonant Nanocavities. Laser and Photonics Reviews, 2022, 16, .	4.4	23
5	Directly interface microreaction tube and test strip for the detection of Salmonella in food with combined isothermal amplification and lateral flow assay. Food Microbiology, 2022, 107, 104062.	2.1	6
6	Systematic Engineering approach for optimization of multi-component alternative protein-fortified 3D printing food Ink. Food Hydrocolloids, 2022, 131, 107803.	5.6	17
7	Reversible 4D printing. , 2022, , 395-417.		0
8	A review on spacers and membranes: Conventional or hybrid additive manufacturing?. Water Research, 2021, 188, 116497.	5.3	46
9	3D food printing of fresh vegetables using food hydrocolloids for dysphagic patients. Food Hydrocolloids, 2021, 114, 106546.	5.6	167
10	Smart ring resonatorâ€“based sensor for multicomponent chemical analysis via machine learning. Photonics Research, 2021, 9, B38.	3.4	23
11	Deep <scp>learningâ€enabled</scp> imaging flow cytometry for <scp>highâ€speed</scp>Cryptosporidium and Giardia detection. Cytometry Part A: the Journal of the International Society for Analytical Cytology, 2021, 99, 1123-1133.	1.1	13
12	Continuous optical sorting of nanoscale biomolecules in integrated microfluidic-nanophotonic chips. Sensors and Actuators B: Chemical, 2021, 331, 129428.	4.0	22
13	Efficient On-Chip Training of Optical Neural Networks Using Genetic Algorithm. ACS Photonics, 2021, 8, 1662-1672.	3.2	61
14	A 3D-printed magnetic digital microfluidic diagnostic platform for rapid colorimetric sensing of carbapenemase-producing Enterobacteriaceae. Microsystems and Nanoengineering, 2021, 7, 47.	3.4	14
15	A Perspective on the Role of Point-of-Care â€œImmuno-Triagingâ€•to Optimize COVID-19 Vaccination Distribution in a Time of Scarcity. Frontiers in Public Health, 2021, 9, 638316.	1.3	3
16	Trapping and Detection of Single Viruses in an Optofluidic Chip. ACS Sensors, 2021, 6, 3445-3450.	4.0	18
17	An optical neural chip for implementing complex-valued neural network. Nature Communications, 2021, 12, 457.	5.8	251
18	Magnetic Digital Microfluidics for Point-of-Care Testing: Where Are We Now?. Current Medicinal Chemistry, 2021, 28, 6323-6336.	1.2	7

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19	Fouling mitigation in reverse osmosis processes with 3D printed sinusoidal spacers. Water Research, 2021, 207, 117818.	5.3	25
20	Massive nanophotonic trapping and alignment of rod-shaped bacteria for parallel single-cell studies. Sensors and Actuators B: Chemical, 2020, 306, 127562.	4.0	17
21	Contactless reversible 4D-printing for 3D-to-3D shape morphing. Virtual and Physical Prototyping, 2020, 15, 481-495.	5.3	36
22	Machine Learning-Based Pipeline for High Accuracy Bioparticle Sizing. Micromachines, 2020, 11, 1084.	1.4	5
23	Optofluidic Microengine in A Dynamic Flow Environment via Self-Induced Back-Action. ACS Photonics, 2020, 7, 1500-1507.	3.2	12
24	Optical Potential-Well Array for High-Selectivity, Massive Trapping and Sorting at Nanoscale. Nano Letters, 2020, 20, 5193-5200.	4.5	47
25	Powder-Based 3D Printing for the Fabrication of Device with Micro and Mesoscale Features. Micromachines, 2020, 11, 658.	1.4	55
26	A 3D-printed modular magnetic digital microfluidic architecture for on-demand bioanalysis. Microsystems and Nanoengineering, 2020, 6, 48.	3.4	24
27	3D-printed Bioreactors for In Vitro Modeling and Analysis. International Journal of Bioprinting, 2020, 6, 267.	1.7	21
28	An Automatic Cell Cyclic Motor in Microfluidics via SelfInduced Back-Action. , 2020, , .		0
29	Coupling assisted high efficiency sorting of spherical and rod-shaped bacteria in an optofluidic chip. , 2020, , .		0
30	An integrated silicon photonic chip platform for continuous-variable quantum key distribution. Nature Photonics, 2019, 13, 839-842.	15.6	196
31	Rapid generation of chemical combinations on a magnetic digital microfluidic array. RSC Advances, 2019, 9, 21741-21747.	1.7	13
32	Unconventional Split Aptamers Cleaved at Functionally Essential Sites Preserve Biorecognition Capability. Analytical Chemistry, 2019, 91, 15811-15817.	3.2	29
33	Nanophotonic Array-Induced Dynamic Behavior for Label-Free Shape-Selective Bacteria Sieving. ACS Nano, 2019, 13, 12070-12080.	7.3	48
34	Preliminary Investigation of the Reversible 4D Printing of a Dual-Layer Component. Engineering, 2019, 5, 1159-1170.	3.2	42
35	Charge-Dependent Regulation in DNA Adsorption on 2D Clay Minerals. Scientific Reports, 2019, 9, 6808.	1.6	7
36	3D food printing: a categorised review of inks and their development. Virtual and Physical Prototyping, 2019, 14, 203-218.	5.3	100

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37	A â€˜cultureâ€™ shift: Application of molecular techniques for diagnosing polymicrobial infections. Biotechnology Advances, 2019, 37, 476-490.	6.0	24
38	Magnetic digital microfluidics on a bioinspired surface for pointâ€ofâ€care diagnostics of infectious disease. Electrophoresis, 2019, 40, 1178-1185.	1.3	19
39	Sieve-through vertical flow platform for efficient liquid exchange in particle-based assays. Analytica Chimica Acta, 2019, 1051, 94-102.	2.6	3
40	Chemical reaction monitoring via the light focusing in optofluidic waveguides. Sensors and Actuators B: Chemical, 2019, 280, 16-23.	4.0	14
41	Optofluidics in bio-imaging applications. Photonics Research, 2019, 7, 532.	3.4	20
42	Three-dimensional-printing for microfluidics or the other way around?. International Journal of Bioprinting, 2019, 5, 192.	1.7	14
43	Application of polydopamine in biomedical microfluidic devices. Microfluidics and Nanofluidics, 2018, 22, 1.	1.0	18
44	Sculpting nanoparticle dynamics for single-bacteria-level screening and direct binding-efficiency measurement. Nature Communications, 2018, 9, 815.	5.8	129
45	Magnetic digital microfluidics â€“ a review. Lab on A Chip, 2017, 17, 994-1008.	3.1	256
46	High-resolution and multi-range particle separation by microscopic vibration in an optofluidic chip. Lab on A Chip, 2017, 17, 2443-2450.	3.1	53
47	Post-printing surface modification and functionalization of 3D-printed biomedical device. International Journal of Bioprinting, 2017, 3, 93.	1.7	21
48	Sorting and measurement of single gold nanoparticles in an optofluidic chip. , 2017, , .		0
49	Parallel alignment of bacteria using near-field optical force array for cell sorting. , 2017, , .		0
50	Particle trapping and hopping in an optofluidic fishnet. , 2017, , .		0
51	A Simple Thermoplastic Substrate Containing Hierarchical Silica Lamellae for Highâ€Molecularâ€Weight DNA Extraction. Advanced Materials, 2016, 28, 10630-10636.	11.1	17
52	Highâ€resolution quantification by chargeâ€dominant electrophoretic mobility shift of quantum dots. Electrophoresis, 2015, 36, 1011-1015.	1.3	2
53	A stacking flow immunoassay for the detection of dengue-specific immunoglobulins in salivary fluid. Lab on A Chip, 2015, 15, 1465-1471.	3.1	66
54	Trapping cells in paper for white blood cell count. Biosensors and Bioelectronics, 2015, 69, 121-127.	5.3	24

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55	Homogeneous Immunochemical Assay on the Lateral Flow Strip for Measurement of DNase I Activity. Analytical Chemistry, 2015, 87, 10193-10198.	3.2	20
56	Quantum dots in diagnostics and detection: principles and paradigms. Analyst, The, 2014, 139, 2968-2981.	1.7	116
57	Integrated Microcapillary for Sample-to-Answer Nucleic Acid Pretreatment, Amplification, and Detection. Analytical Chemistry, 2014, 86, 10461-10466.	3.2	91
58	A droplet microfluidic approach to single-stream nucleic acid isolation and mutation detection. Microfluidics and Nanofluidics, 2014, 17, 425-430.	1.0	22
59	Extraction and processing of circulating DNA from large sample volumes using methylation on beads for the detection of rare epigenetic events. Clinica Chimica Acta, 2013, 425, 169-175.	0.5	45
60	Serial dilution via surface energy trap-assisted magnetic droplet manipulation. Lab on A Chip, 2013, 13, 4827.	3.1	31
61	Fullâ€Range Magnetic Manipulation of Droplets via Surface Energy Traps Enables Complex Bioassays. Advanced Materials, 2013, 25, 2903-2908.	11.1	118
62	Electromagnet-actuated droplet platform for sample-to-answer genetic detection. , 2013, , .		0
63	Topography-assisted electromagnetic platform for blood-to-PCR in a droplet. Biosensors and Bioelectronics, 2013, 50, 91-99.	5.3	89
64	Flip-drop: Droplet array created by surface energy trap for combinatorial screening. , 2013, , .		0
65	Single Quantum Dot Analysis Enables Multiplexed Point Mutation Detection by Gap Ligase Chain Reaction. Small, 2013, 9, 1096-1105.	5.2	33
66	A compact and low loss Y-junction for submicron silicon waveguide. Optics Express, 2013, 21, 1310.	1.7	302
67	All-in-one droplet platform for multiplexed genetic detection in blood. , 2013, , .		0
68	Quantum dot electrophoretic mobility shift assay and its application to the measurement of exonuclease activity. , 2012, , .		0
69	Quantum dot FRET linker probes for highly sensitive DNA methylation detection. , 2012, , .		2
70	Mapping DNA Quantity into Electrophoretic Mobility through Quantum Dot Nanotethers for High-Resolution Genetic and Epigenetic Analysis. ACS Nano, 2012, 6, 858-864.	7.3	17
71	Quantum Dot Enabled Molecular Sensing and Diagnostics. Theranostics, 2012, 2, 631-654.	4.6	134
72	Micro magnetic gyromixer for speeding up reactions in droplets. Microfluidics and Nanofluidics, 2012, 12, 787-794.	1.0	30

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73	An Integrated Platform for Single Molecule Free Solution Hydrodynamic Separation Using Yoctomoles of DNA and Picoliter Samples. , 2012, , .		0
74	A surface topography assisted droplet manipulation platform for biomarker detection and pathogen identification. Lab on A Chip, 2011, 11, 398-406.	3.1	155
75	Increasing throughput and sensitivity of DNA Methylation analysis through functional nanoparticles. , 2011, , .		0
76	Single-Molecule Analysis Enables Free Solution Hydrodynamic Separation Using Yoctomole Levels of DNA. Journal of the American Chemical Society, 2011, 133, 6898-6901.	6.6	33
77	Continuous dielectrophoretic bacterial separation and concentration from physiological media of high conductivity. Lab on A Chip, 2011, 11, 2893.	3.1	192
78	Advances in microfluidic PCR for point-of-care infectious disease diagnostics. Biotechnology Advances, 2011, 29, 830-839.	6.0	256
79	An active gyroscopic magnetic micromixer for rapid fluid mixing in droplet based microfluidic systems. , 2011, , .		0
80	Fully integraed droplet based point-of-care platform for molecular detection from crude biosamples. , 2011, , .		0
81	Enzymatic Incorporation of Multiple Dyes for Increased Sensitivity in QDâ€FRET Sensing for DNA Methylation Detection. ChemBioChem, 2010, 11, 71-74.	1.3	33
82	Counting single molecules in sub-nanolitre droplets. Lab on A Chip, 2010, 10, 161-164.	3.1	52
83	An all-in-one microfluidic device for parallel DNA extraction and gene analysis. Biomedical Microdevices, 2010, 12, 1043-1049.	1.4	58
84	Single-Tube Analysis of DNA Methylation with Silica Superparamagnetic Beads. Clinical Chemistry, 2010, 56, 1022-1025.	1.5	45
85	Geomorphology-assisted manipulation of magnet-actuated droplet for solid phase DNA extraction and droplet-in-oil PCR. , 2010, , .		2
86	An automated all-in-one microfludic device for parallel solid phase DNA extraction and droplet-inoil PCR analysis. , 2010, , .		1
87	MS-qFRET: A quantum dot-based method for analysis of DNA methylation. Genome Research, 2009, 19, 1455-1461.	2.4	126
88	DNA methylation analysis on a droplet-in-oil PCR array. Lab on A Chip, 2009, 9, 1059.	3.1	41
89	Clockwork PCR Including Sample Preparation. Angewandte Chemie - International Edition, 2008, 47, 3900-3904.	7.2	106
90	An integrated fluorescence detection system for lab-on-a-chip applications. Lab on A Chip, 2007, 7, 27-29.	3.1	156

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91	Catching bird flu in a droplet. Nature Medicine, 2007, 13, 1259-1263.	15.2	195
92	Colloidal Rings in a Liquid Mixture. Langmuir, 2005, 21, 7271-7275.	1.6	23