Zhangming Mao

List of Publications by Year
in descending order

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46 papers	4,468 citations	172386 29 h-index	302012 39 g-index
48 all docs	48 docs citations	48 times ranked	4701 citing authors

#	Article	IF	Citations
1	Acoustofluidic centrifuge for nanoparticle enrichment and separation. Science Advances, 2021, 7, .	4.7	100
2	Acoustic Cell Separation Based on Density and Mechanical Properties. Journal of Biomechanical Engineering, 2020, 142, .	0.6	31
3	More than efficacy revealed by single-cell analysis of antiviral therapeutics. Science Advances, 2019, 5, eaax4761.	4.7	16
4	Opto-thermoelectric nanotweezers. Nature Photonics, 2018, 12, 195-201.	15.6	216
5	Three-dimensional numerical simulation and experimental investigation of boundary-driven streaming in surface acoustic wave microfluidics. Lab on A Chip, 2018, 18, 3645-3654.	3.1	36
6	Standing Surface Acoustic Wave (SSAW)â€Based Fluorescenceâ€Activated Cell Sorter. Small, 2018, 14, e1801996.	5.2	83
7	Circulating Tumor Cell Phenotyping via Highâ€Throughput Acoustic Separation. Small, 2018, 14, e1801131.	5.2	115
8	Digital acoustofluidics enables contactless and programmable liquid handling. Nature Communications, 2018, 9, 2928.	5.8	134
9	Enriching Nanoparticles via Acoustofluidics. ACS Nano, 2017, 11, 603-612.	7.3	142
10	Thermophoretic Tweezers for Low-Power and Versatile Manipulation of Biological Cells. ACS Nano, 2017, 11, 3147-3154.	7.3	114
11	Acoustic Separation of Nanoparticles in Continuous Flow. Advanced Functional Materials, 2017, 27, 1606039.	7.8	106
12	Hybrid Dielectric-loaded Nanoridge Plasmonic Waveguide for Low-Loss Light Transmission at the Subwavelength Scale. Scientific Reports, 2017, 7, 40479.	1.6	26
13	Separation: Acoustic Separation of Nanoparticles in Continuous Flow (Adv. Funct. Mater. 14/2017). Advanced Functional Materials, 2017, 27, .	7.8	10
14	Rheotaxis of Bimetallic Micromotors Driven by Chemicalâ€“Acoustic Hybrid Power. ACS Nano, 2017, 11, 10591-10598.	7.3	135
15	Opto-thermophoretic assembly of colloidal matter. Science Advances, 2017, 3, e1700458.	4.7	115
16	Acoustofluidic waveguides for localized control of acoustic wavefront in microfluidics. Microfluidics and Nanofluidics, 2017, 21, 1.	1.0	25
17	Single-Cell Virology: On-Chip Investigation of Viral Infection Dynamics. Cell Reports, 2017, 21, 1692-1704.	2.9	71
18	Probing Cell Deformability via Acoustically Actuated Bubbles. Small, 2016, 12, 902-910.	5.2	60

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19	Light-Directed Reversible Assembly of Plasmonic Nanoparticles Using Plasmon-Enhanced Thermophoresis. ACS Nano, 2016, 10, 9659-9668.	7.3	138
20	Rapid formation of size-controllable multicellular spheroids via 3D acoustic tweezers. Lab on A Chip, 2016, 16, 2636-2643.	3.1	147
21	Three-dimensional manipulation of single cells using surface acoustic waves. Proceedings of the National Academy of Sciences of the United States of America, 2016, 113, 1522-1527.	3.3	448
22	Bubble-Pen Lithography. Nano Letters, 2016, 16, 701-708.	4.5	170
23	Experimental and numerical studies on standing surface acoustic wave microfluidics. Lab on A Chip, 2016, 16, 515-524.	3.1	73
24	Laser-directed â€œbubble-penâ€•for nanoparticle patterning. , 2016, , .		0
25	Crystallography: Precise Manipulation and Patterning of Protein Crystals for Macromolecular Crystallography Using Surface Acoustic Waves (Small 23/2015). Small, 2015, 11, 2710-2710.	5.2	1
26	Standing surface acoustic wave (SSAW)-based cell washing. Lab on A Chip, 2015, 15, 331-338.	3.1	85
27	Numerical study of acoustophoretic motion of particles in a PDMS microchannel driven by surface acoustic waves. Lab on A Chip, 2015, 15, 2700-2709.	3.1	154
28	A high-throughput acoustic cell sorter. Lab on A Chip, 2015, 15, 3870-3879.	3.1	126
29	Precise Manipulation and Patterning of Protein Crystals for Macromolecular Crystallography Using Surface Acoustic Waves. Small, 2015, 11, 2733-2737.	5.2	49
30	Acoustic separation of circulating tumor cells. Proceedings of the National Academy of Sciences of the United States of America, 2015, 112, 4970-4975.	3.3	632
31	Reusable acoustic tweezers for disposable devices. Lab on A Chip, 2015, 15, 4517-4523.	3.1	60
32	Controlling cellâ€“cell interactions using surface acoustic waves. Proceedings of the National Academy of Sciences of the United States of America, 2015, 112, 43-48.	3.3	330
33	Label-Free Measurements of Reaction Kinetics Using a Droplet-Based Optofluidic Device. Journal of the Association for Laboratory Automation, 2015, 20, 17-24.	2.8	24
34	Theory and experiment on particle trapping and manipulation via optothermally generated bubbles. Lab on A Chip, 2014, 14, 384-391.	3.1	136
35	A reliable and programmable acoustofluidic pump powered by oscillating sharp-edge structures. Lab on A Chip, 2014, 14, 4319-4323.	3.1	152
36	In Situ Fabrication of 3D Ag@ZnO Nanostructures for Microfluidic Surface-Enhanced Raman Scattering Systems. ACS Nano, 2014, 8, 12175-12184.	7.3	106

#	Article	IF	Citations
37	System packaging of thousands watt high power LEDs with heat pipe-fin air cooling system: Design and manufacturing. , 2013, , .		0
38	Application specific LED packaging for automotive forward-lighting application and design of whole lamp module. , 2012, , .		3
39	Thermal modeling and design for microchannel cold plate with high temperature uniformity subjected to multiple heat sources. International Communications in Heat and Mass Transfer, 2012, 39, 781-785.	2.9	21
40	A compact thermal model to predict the junction temperature of high power light emitting diode package. , 2012, , .		2
41	Compact thermal model for microchannel substrate with high temperature uniformity subjected to multiple heat sources. , 2011, , .		7
42	Analytical thermal resistances model for eccentric heat source on rectangular plate with convective cooling at upper and lower surfaces. International Journal of Thermal Sciences, 2011, 50, 2198-2204.	2.6	22
43	An analytical thermal resistance model for calculating mean die temperature of a typical BGA packaging. Thermochimica Acta, 2011, 512, 208-216.	1.2	24
44	Moisture diffusivity analysis of polycarbonate for LED lens. , 2010, , .		2
45	Thermal design of a 16W LED bulb based on thermal analysis of a 4W LED bulb. , 2010, , .		8
46	Low thermal resistance LED light source with vapor chamber coupled fin heat sink. , 2010, , .		12