Zhangming Mao

List of Publications by Year
in descending order

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	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
2	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
3	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
4	Opto-thermoelectric nanotweezers. Nature Photonics, 2018, 12, 195-201.	15.6	216
5	Bubble-Pen Lithography. Nano Letters, 2016, 16, 701-708.	4.5	170
6	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
7	A reliable and programmable acoustofluidic pump powered by oscillating sharp-edge structures. Lab on A Chip, 2014, 14, 4319-4323.	3.1	152
8	Rapid formation of size-controllable multicellular spheroids via 3D acoustic tweezers. Lab on A Chip, 2016, 16, 2636-2643.	3.1	147
9	Enriching Nanoparticles via Acoustofluidics. ACS Nano, 2017, 11, 603-612.	7.3	142
10	Light-Directed Reversible Assembly of Plasmonic Nanoparticles Using Plasmon-Enhanced Thermophoresis. ACS Nano, 2016, 10, 9659-9668.	7.3	138
11	Theory and experiment on particle trapping and manipulation via optothermally generated bubbles. Lab on A Chip, 2014, 14, 384-391.	3.1	136
12	Rheotaxis of Bimetallic Micromotors Driven by Chemicalâ€“Acoustic Hybrid Power. ACS Nano, 2017, 11, 10591-10598.	7.3	135
13	Digital acoustofluidics enables contactless and programmable liquid handling. Nature Communications, 2018, 9, 2928.	5.8	134
14	A high-throughput acoustic cell sorter. Lab on A Chip, 2015, 15, 3870-3879.	3.1	126
15	Opto-thermophoretic assembly of colloidal matter. Science Advances, 2017, 3, e1700458.	4.7	115
16	Circulating Tumor Cell Phenotyping via Highâ€Throughput Acoustic Separation. Small, 2018, 14, e1801131.	5.2	115
17	Thermophoretic Tweezers for Low-Power and Versatile Manipulation of Biological Cells. ACS Nano, 2017, 11, 3147-3154.	7.3	114
18	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
19	Acoustic Separation of Nanoparticles in Continuous Flow. Advanced Functional Materials, 2017, 27, 1606039.	7.8	106
20	Acoustofluidic centrifuge for nanoparticle enrichment and separation. Science Advances, 2021, 7, .	4.7	100
21	Standing surface acoustic wave (SSAW)-based cell washing. Lab on A Chip, 2015, 15, 331-338.	3.1	85
22	Standing Surface Acoustic Wave (SSAW)â€Based Fluorescenceâ€Activated Cell Sorter. Small, 2018, 14, e1801996.	5.2	83
23	Experimental and numerical studies on standing surface acoustic wave microfluidics. Lab on A Chip, 2016, 16, 515-524.	3.1	73
24	Single-Cell Virology: On-Chip Investigation of Viral Infection Dynamics. Cell Reports, 2017, 21, 1692-1704.	2.9	71
25	Reusable acoustic tweezers for disposable devices. Lab on A Chip, 2015, 15, 4517-4523.	3.1	60
26	Probing Cell Deformability via Acoustically Actuated Bubbles. Small, 2016, 12, 902-910.	5.2	60
27	Precise Manipulation and Patterning of Protein Crystals for Macromolecular Crystallography Using Surface Acoustic Waves. Small, 2015, 11, 2733-2737.	5.2	49
28	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
29	Acoustic Cell Separation Based on Density and Mechanical Properties. Journal of Biomechanical Engineering, 2020, 142, .	0.6	31
30	Hybrid Dielectric-loaded Nanoridge Plasmonic Waveguide for Low-Loss Light Transmission at the Subwavelength Scale. Scientific Reports, 2017, 7, 40479.	1.6	26
31	Acoustofluidic waveguides for localized control of acoustic wavefront in microfluidics. Microfluidics and Nanofluidics, 2017, 21, 1.	1.0	25
32	An analytical thermal resistance model for calculating mean die temperature of a typical BGA packaging. Thermochimica Acta, 2011, 512, 208-216.	1.2	24
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	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
35	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
36	More than efficacy revealed by single-cell analysis of antiviral therapeutics. Science Advances, 2019, 5, eaax4761.	4.7	16

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37	Low thermal resistance LED light source with vapor chamber coupled fin heat sink. , 2010, , .		12
38	Separation: Acoustic Separation of Nanoparticles in Continuous Flow (Adv. Funct. Mater. 14/2017). Advanced Functional Materials, 2017, 27, .	7.8	10
39	Thermal design of a 16W LED bulb based on thermal analysis of a 4W LED bulb. , 2010, , .		8
40	Compact thermal model for microchannel substrate with high temperature uniformity subjected to multiple heat sources. , 2011, , .		7
41	Application specific LED packaging for automotive forward-lighting application and design of whole lamp module. , 2012, , .		3
42	Moisture diffusivity analysis of polycarbonate for LED lens. , 2010, , .		2
43	A compact thermal model to predict the junction temperature of high power light emitting diode package. , 2012, , .		2
44	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
45	System packaging of thousands watt high power LEDs with heat pipe-fin air cooling system: Design and manufacturing. , 2013, , .		0
46	Laser-directed â€œbubble-penâ€•for nanoparticle patterning. , 2016, , .		0