Jie Xu

List of Publications by Year in descending order

93 papers	3,796 citations	136950 32 h-index	133252 59 g-index
97 all docs	97 docs citations	97 times ranked	5359 citing authors

#	Article	IF	Citations
1	Water sorption characteristics of freeze-dried bacteria in low-moisture foods. International Journal of Food Microbiology, 2022, 362, 109494.	4.7	2
2	Acoustic bubble for spheroid trapping, rotation, and culture: a tumor-on-a-chip platform (ABSTRACT) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 5	6.0	14
3	The Effect of Acceleration on the Separation Force in Constrained-Surface Stereolithography. Applied Sciences (Switzerland), 2022, 12, 442.	2.5	4
4	A Monolithic 3D Printed Axisymmetric Co-Flow Single and Compound Emulsion Generator. Micromachines, 2022, 13, 188.	2.9	4
5	A meta-analysis of variability in conjunctival microvascular hemorheology metrics. Microvascular Research, 2022, 142, 104340.	2.5	2
6	AC electroosmosis micromixing on a lab-on-a-foil electric microfluidic device. Sensors and Actuators B: Chemical, 2022, 359, 131611.	7.8	13
7	Glucose measurement via Raman spectroscopy of graphene: Principles and operation. Nano Research, 2022, 15, 8697-8704.	10.4	6
8	Moisture Content of Bacterial Cells Determines Thermal Resistance of Salmonella enterica Serotype Enteritidis PT 30. Applied and Environmental Microbiology, 2021, 87, .	3.1	22
9	Phononics of Graphene Interfaced with Flowing Ionic Fluid: An Avenue for High Spatial Resolution Flow Sensor Applications. ACS Nano, 2021, 15, 6998-7005.	14.6	10
10	Study of ultrasound thrombolysis using acoustic bubbles in a microfluidic device. Lab on A Chip, 2021, 21, 3707-3714.	6.0	13
11	Acoustic Microfluidic Separation Techniques and Bioapplications: A Review. Micromachines, 2020, 11, 921.	2.9	69
12	Trapping and control of bubbles in various microfluidic applications. Lab on A Chip, 2020, 20, 4512-4527.	6.0	37
13	Biogenic preparation of doughnut shaped manganese nanograins embellished on graphene for superior interfacial binding of biomarkers. Journal of Materials Research and Technology, 2020, 9, 9896-9906.	5.8	7
14	Desiccation in oil protects bacteria in thermal processing. Food Research International, 2020, 137, 109519.	6.2	13
15	Energy-harvesting bioreactors: toward self-powered microfluidic devices, a mini-review. Microfluidics and Nanofluidics, 2020, 24, 1.	2.2	4
16	Monolayer graphene chemiresistive biosensor for rapid bacteria detection in a microchannel. Sensors and Actuators Reports, 2020, 2, 100004.	4.4	21
17	Acoustic bubble-based bidirectional micropump. Microfluidics and Nanofluidics, 2020, 24, 1.	2.2	44
18	Acoustofluidic stick-and-play micropump built on foil for single-cell trapping. Lab on A Chip, 2019, 19, 3045-3053.	6.0	24

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19	In-situ synthesis of 3D ultra-small gold augmented graphene hybrid for highly sensitive electrochemical binding capability. Journal of Colloid and Interface Science, 2019, 553, 289-297.	9.4	10
20	Electromechanical equivalent circuit of the radially polarized cylindrical piezoelectric transducer in coupled vibration. Journal of the Acoustical Society of America, 2019, 145, 1303-1312.	1.1	7
21	On the design of deterministic dielectrophoresis for continuous separation of circulating tumor cells from peripheral blood cells. Electrophoresis, 2019, 40, 1486-1493.	2.4	67
22	Acoustofluidic micromixer on lab-on-a-foil devices. Sensors and Actuators B: Chemical, 2019, 287, 312-319.	7.8	32
23	An Autonomous Planning Method for UAV Based on Behavior-Conditional Model. , 2019, , .		3
24	Dry inoculation methods for nonfat milk powder. Journal of Dairy Science, 2019, 102, 77-86.	3.4	29
25	Microstructures Fabricated by Twoâ€Photon Polymerization and Their Remote Manipulation Techniques: Toward 3D Printing of Micromachines. Advanced Optical Materials, 2018, 6, 1701359.	7.3	46
26	Nitrogen-doped graphene approach to enhance the performance of a membraneless enzymatic biofuel cell. Frontiers in Energy, 2018, 12, 233-238.	2.3	12
27	Air-Diffusion-Channel Constrained Surface Based Stereolithography for Three-Dimensional Printing of Objects With Wide Solid Cross Sections. Journal of Manufacturing Science and Engineering, Transactions of the ASME, 2018, 140, .	2.2	12
28	Analysis on the three-dimensional coupled vibration of composite cylindrical piezoelectric transducers. Journal of the Acoustical Society of America, 2018, 143, 1206-1213.	1.1	17
29	Effects of electrothermal vortices on insulatorâ€based dielectrophoresis for circulating tumor cell separation. Electrophoresis, 2018, 39, 869-877.	2.4	46
30	Larval Zebrafish Lateral Line as a Model for Acoustic Trauma. ENeuro, 2018, 5, ENEURO.0206-18.2018.	1.9	27
31	Particle squeezing in narrow confinements. Microfluidics and Nanofluidics, 2018, 22, 1.	2.2	40
32	Soft lithography based on photolithography and two-photon polymerization. Microfluidics and Nanofluidics, 2018, 22, 1.	2.2	40
33	Superhydrophobic Surfaces Based on Fractal and Hierarchical Microstructures Using Twoâ€Photon Polymerization: Toward Flexible Superhydrophobic Films. Advanced Materials Interfaces, 2018, 5, 1801126.	3.7	28
34	Effect of Constrained Surface Texturing on Separation Force in Projection Stereolithography. Journal of Manufacturing Science and Engineering, Transactions of the ASME, 2018, 140, .	2.2	22
35	Gate-Tuned Temperature in a Hexagonal Boron Nitride-Encapsulated 2-D Semiconductor Device. IEEE Transactions on Electron Devices, 2018, 65, 4068-4072.	3.0	12
36	Black Phosphorus and its Biomedical Applications. Theranostics, 2018, 8, 1005-1026.	10.0	253

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37	Vibrational modes prediction for water-air bubbles trapped in circular microcavities. Physics of Fluids, 2018, 30, .	4.0	13
38	Zebrafish hair cell mechanics and physiology through the lens of noise-induced hair cell death. AIP Conference Proceedings, 2018, , .	0.4	3
39	Rechargeable membraneless glucose biobattery: Towards solid-state cathodes for implantable enzymatic devices. Journal of Power Sources, 2017, 343, 103-108.	7.8	28
40	Study of separation force in constrained surface projection stereolithography. Rapid Prototyping Journal, 2017, 23, 353-361.	3.2	73
41	Drastic sensing enhancement using acoustic bubbles for surface-based microfluidic sensors. Sensors and Actuators B: Chemical, 2017, 243, 298-302.	7.8	10
42	On characterization of separation force for resin replenishment enhancement in 3D printing. Additive Manufacturing, 2017, 17, 151-156.	3.0	16
43	Droplet squeezing through a narrow constriction: Minimum impulse and critical velocity. Physics of Fluids, 2017, 29, 072102.	4.0	32
44	Analysis on Coupled Vibration of a Radially Polarized Piezoelectric Cylindrical Transducer. Sensors, 2017, 17, 2850.	3.8	13
45	Gallium-Based Room-Temperature Liquid Metals: Actuation and Manipulation of Droplets and Flows. Frontiers in Mechanical Engineering, 2017, 3, .	1.8	16
46	Chapter 4. Paper-fluidic Based Sensing in Food Safety and Quality Analysis. Food Chemistry, Function and Analysis, 2017, , 95-120.	0.2	2
47	Detection of heavy metal by paper-based microfluidics. Biosensors and Bioelectronics, 2016, 83, 256-266.	10.1	188
48	Carbon nanotube modification of microbial fuel cell electrodes. Biosensors and Bioelectronics, 2016, 85, 536-552.	10.1	116
49	Recent Advancements in Functionalized Paper-Based Electronics. ACS Applied Materials & Interfaces, 2016, 8, 20501-20515.	8.0	150
50	Chemical, physical and morphological properties of bacterial biofilms affect survival of encased Campylobacter jejuni F38011 under aerobic stress. International Journal of Food Microbiology, 2016, 238, 172-182.	4.7	17
51	Hydrodynamics and mass transfer of oscillating gasâ€liquid flow in ultrasonic microreactors. AICHE Journal, 2016, 62, 1294-1307.	3.6	68
52	Onset of particle trapping and release via acoustic bubbles. Lab on A Chip, 2016, 16, 3024-3032.	6.0	33
53	3D printing: an emerging tool for novel microfluidics and lab-on-a-chip applications. Microfluidics and Nanofluidics, 2016, 20, 1.	2.2	222
54	Fabrication of SERSâ€Active Substrates using Silver Nanofilmâ€Coated Porous Anodic Aluminum Oxide for Detection of Antibiotics. Journal of Food Science, 2015, 80, N834-40.	3.1	23

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55	Liquid metal robotics: a new category of soft robotics on the horizon. Science Bulletin, 2015, 60, 1047-1048.	9.0	7
56	A high-power ultrasonic microreactor and its application in gasâ€“liquid mass transfer intensification. Lab on A Chip, 2015, 15, 1145-1152.	6.0	76
57	Entry effects of droplet in a micro confinement: Implications for deformation-based circulating tumor cell microfiltration. Biomicrofluidics, 2015, 9, 024108.	2.4	46
58	Towards a Dynamic Clamp for Neurochemical Modalities. Sensors, 2015, 15, 10465-10480.	3.8	6
59	Application of microfluidic â€œlab-on-a-chipâ€•for the detection of mycotoxins in foods. Trends in Food Science and Technology, 2015, 46, 252-263.	15.1	75
60	Deformability-based circulating tumor cell separation with conical-shaped microfilters: Concept, optimization, and design criteria. Biomicrofluidics, 2015, 9, 034106.	2.4	42
61	Design of a microfluidic device with a non-traditional flow profile for on-chip damage to zebrafish sensory cells. Journal of Micromechanics and Microengineering, 2014, 24, 017001.	2.6	6
62	The effects of 3D channel geometry on CTC passing pressure â€“ towards deformability-based cancer cell separation. Lab on A Chip, 2014, 14, 2576-2584.	6.0	94
63	On the Quantification of Mixing in Microfluidics. Journal of the Association for Laboratory Automation, 2014, 19, 488-491.	2.8	69
64	Microbubble array for on-chip worm processing. Applied Physics Letters, 2013, 102, 023702.	3.3	30
65	Oscillating bubbles in teardrop cavities for microflow control. Microfluidics and Nanofluidics, 2013, 14, 591-596.	2.2	33
66	Detecting and Tracking Nosocomial Methicillin-Resistant Staphylococcus aureus Using a Microfluidic SERS Biosensor. Analytical Chemistry, 2013, 85, 2320-2327.	6.5	110
67	Piezoelectric Actuation in Multiphase Microfluidics. , 2013, , 1-10.		0
68	Uniform Flow Control for a Multipassage Microfluidic Sensor. Journal of Fluids Engineering, Transactions of the ASME, 2013, 135, .	1.5	7
69	Liquid Marbles. , 2013, , 1-9.		0
70	Leidenfrost levitation: beyond droplets. Scientific Reports, 2012, 2, 797.	3.3	65
71	How to Cool a Burn. Journal of Burn Care and Research, 2012, 33, 176-187.	0.4	19
72	Microfluidic Flow Control and Particle Transport Using Acoustically Actuated Bubbles in Teardrop Shaped Cavities. , 2012, , .		0

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73	A compact lab-on-a-chip nanosensor for glycerol detection. Applied Physics Letters, 2012, 100, .	3.3	19
74	Freezing of a Liquid Marble. Langmuir, 2012, 28, 10324-10328.	3.5	32
75	High-Yield Fabrication of Graphene Chemiresistors With Dielectrophoresis. IEEE Nanotechnology Magazine, 2012, 11, 751-759.	2.0	20
76	Comprehensive Detection and Discrimination of Campylobacter Species by Use of Confocal Micro-Raman Spectroscopy and Multilocus Sequence Typing. Journal of Clinical Microbiology, 2012, 50, 2932-2946.	3.9	31
77	Liquid marbles with in-flows and out-flows: characteristics and performance limits. Soft Matter, 2012, 8, 11604.	2.7	8
78	Leidenfrost Cart. , 2012, , .		1
79	Oscillating bubbles: a versatile tool for lab on a chip applications. Lab on A Chip, 2012, 12, 4216.	6.0	176
80	Microbubble Array as a Versatile Tool for On-Chip Worm Processing. , 2012, , .		0
81	Integration of nanosensors into a sealed microchannel in a hybrid lab-on-a-chip device. Sensors and Actuators B: Chemical, 2012, 166-167, 870-877.	7.8	29
82	Acoustophoresis in variously shaped liquid droplets. Soft Matter, 2011, 7, 10063.	2.7	18
83	Liquid marbles as thermally robust droplets: coating-assisted Leidenfrost-like effect. Soft Matter, 2011, 7, 11314.	2.7	34
84	Simple graphene chemiresistors as pH sensors: fabrication and characterization. Measurement Science and Technology, 2011, 22, 107002.	2.6	68
85	Design of a novel flow-and-shoot microbeam. Radiation Protection Dosimetry, 2011, 143, 344-348.	0.8	7
86	Acoustic Manipulation of Particles in Variously Shaped Liquid Droplets. , 2011, , .		0
87	Use of a porous membrane for gas bubble removal in microfluidic channels: physical mechanisms and design criteria. Microfluidics and Nanofluidics, 2010, 9, 765-772.	2.2	82
88	Do surfaces with mixed hydrophilic and hydrophobic areas enhance pool boiling?. Applied Physics Letters, 2010, 97, .	3.3	352
89	Drop on demand in a microfluidic chip. Journal of Micromechanics and Microengineering, 2008, 18, 065020.	2.6	89
90	Control and ultrasonic actuation of a gasâ€“liquid interface in a microfluidic chip. Journal of Micromechanics and Microengineering, 2007, 17, 609-616.	2.6	33

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91	A bubble-powered micro-rotor: conception, manufacturing, assembly and characterization. Journal of Micromechanics and Microengineering, 2007, 17, 2454-2460.	2.6	45
92	Acoustic excitation of superharmonic capillary waves on a meniscus in a planar microgeometry. Physics of Fluids, 2007, 19, 108107.	4.0	27
93	Microparticle Manipulation Based on the Bulk Acoustic Wave Combined with the Liquid Crystal Backflow Effect Driving in 2D/3D Platforms. ACS Omega, 0, , .	3.5	1