

Huanming Xia

List of Publications by Year in descending order

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43
papers

1,043
citations

430874
18
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414414
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44
all docs

44
docs citations

44
times ranked

1161
citing authors

#	ARTICLE	IF	CITATIONS
1	Chaotic micromixers using two-layer crossing channels to exhibit fast mixing at low Reynolds numbers. Lab on A Chip, 2005, 5, 748.	6.0	211
2	Tunable particle separation in a hybrid dielectrophoresis (DEP)- inertial microfluidic device. Sensors and Actuators B: Chemical, 2018, 267, 14-25.	7.8	99
3	Femtosecond laser-induced modification of surface wettability of PMMA for fluid separation in microchannels. Microfluidics and Nanofluidics, 2011, 10, 225-229.	2.2	47
4	High-Throughput Separation of White Blood Cells From Whole Blood Using Inertial Microfluidics. IEEE Transactions on Biomedical Circuits and Systems, 2017, 11, 1422-1430.	4.0	47
5	A microfluidic mixer with self-excited "turbulent" fluid motion for wide viscosity ratio applications. Lab on A Chip, 2010, 10, 1712.	6.0	46
6	Investigation of hot roller embossing for microfluidic devices. Journal of Micromechanics and Microengineering, 2010, 20, 015017.	2.6	46
7	Influence of the Reynolds number on chaotic mixing in a spatially periodic micromixer and its characterization using dynamical system techniques. Journal of Micromechanics and Microengineering, 2006, 16, 53-61.	2.6	43
8	Passive Micromixer Platform for Size- and Shape-Controllable Preparation of Ultrafine HNS. Industrial & Engineering Chemistry Research, 2019, 58, 16709-16718.	3.7	42
9	Live human nasal epithelial cells (hNECs) on chip for in vitro testing of gaseous formaldehyde toxicity via airway delivery. Lab on A Chip, 2014, 14, 677-680.	6.0	37
10	Converting steady laminar flow to oscillatory flow through a hydroelasticity approach at microscales. Lab on A Chip, 2012, 12, 60-64.	6.0	34
11	Nonlinear microfluidics: device physics, functions, and applications. Lab on A Chip, 2021, 21, 1241-1268.	6.0	32
12	Microfluidic Platform for Preparation and Screening of Narrow Size-Distributed Nanoscale Explosives and Supermixed Composite Explosives. Industrial & Engineering Chemistry Research, 2018, 57, 13191-13204.	3.7	30
13	Digital microfluidic platform for automated detection of human chorionic gonadotropin. Microfluidics and Nanofluidics, 2019, 23, 1.	2.2	28
14	Anti-solvent precipitation of solid lipid nanoparticles using a microfluidic oscillator mixer. Microfluidics and Nanofluidics, 2015, 19, 283-290.	2.2	25
15	An efficient micromixer combining oscillatory flow and divergent circular chambers. Microsystem Technologies, 2019, 25, 2741-2750.	2.0	25
16	Continuous spheroidization strategy for explosives with micro/nano hierarchical structure by coupling microfluidics and spray drying. Chemical Engineering Journal, 2021, 412, 128613.	12.7	21
17	Analyzing the transition pressure and viscosity limit of a hydroelastic microfluidic oscillator. Applied Physics Letters, 2014, 104, 024101.	3.3	20
18	Microfluidic strategy for rapid and high-quality control of crystal morphology of explosives. Reaction Chemistry and Engineering, 2020, 5, 1093-1103.	3.7	19

#	ARTICLE	IF	CITATIONS
19	Improvement of silver azide crystal morphology and detonation behavior by fast mixing using a microreaction system with an integrated static micromixer. Reaction Chemistry and Engineering, 2020, 5, 154-162.	3.7	16
20	A vertical-flow bioreactor array compacts hepatocytes for enhanced polarity and functions. Lab on A Chip, 2016, 16, 3898-3908.	6.0	15
21	The negative-differential-resistance (NDR) mechanism of a hydroelastic microfluidic oscillator. Journal of Micromechanics and Microengineering, 2017, 27, 075001.	2.6	15
22	A comparative discussion of different designs of passive micromixers: specific sensitivities of mixing efficiency on Reynolds numbers and fluid properties. Microsystem Technologies, 2018, 24, 1253-1263.	2.0	15
23	Microfluidic strategy for coating and modification of polymer-bonded nano-HNS explosives. Chemical Engineering Journal, 2022, 428, 131096.	12.7	15
24	TECHNIQUES TO ENHANCE FLUID MICRO-MIXING AND CHAOTIC MICROMIXERS. Modern Physics Letters B, 2005, 19, 1567-1570.	1.9	13
25	Microfluidic Synthesis of Size-Controlled and Morphologically Homogeneous Lead Trinitroresorcinate Produced by Segmented Flow. Propellants, Explosives, Pyrotechnics, 2016, 41, 899-905.	1.6	12
26	Reducing the membrane fouling in cross-flow filtration using a facile fluidic oscillator. Separation and Purification Technology, 2021, 272, 118854.	7.9	10
27	Micro-Segmented Flow Technology Applied for Synthesis and Shape Control of Lead Styphnate Micro-Particles. Propellants, Explosives, Pyrotechnics, 2018, 43, 286-293.	1.6	9
28	Synchronized generation and coalescence of largely dissimilar microdroplets governed by pulsating continuous-phase flow. Applied Physics Letters, 2019, 114, .	3.3	9
29	Microreaction system combining chaotic micromixing with fast mixing and particle growth in liquid-segmented flow for the synthesis of hazardous ionic materials. Energetic Materials Frontiers, 2020, 1, 186-194.	3.2	9
30	Characterization of an acoustically coupled multilayered microfluidic platform on SAW substrate using mixing phenomena. Sensors and Actuators A: Physical, 2015, 233, 360-367.	4.1	7
31	A droplet platform capable of handling dissimilar liquids and its application for separation of bacteria from blood. Biomicrofluidics, 2020, 14, 034102.	2.4	7
32	Aeroelasticity-based fluid agitation for lab-on-chips. Lab on A Chip, 2013, 13, 1619.	6.0	6
33	Numerical study on microstructured reactor with chaotic heat and mass transfer and its potential application for exothermic process. Chemical Engineering Research and Design, 2012, 90, 1719-1726.	5.6	5
34	Numerical analysis and characterization of a Wankel pump as a miniaturized mixer. Journal of Micromechanics and Microengineering, 2015, 25, 084001.	2.6	5
35	Microfluidic mixing through oscillatory transverse perturbations. Modern Physics Letters B, 2018, 32, 1840030.	1.9	5
36	Fluid Micromixing Technology and Its Applications for Biological and Chemical Processes. IFMBE Proceedings, 2007, , 16-20.	0.3	5

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37	Integrated aeroelastic vibrator for fluid mixing in open microwells. Journal of Micromechanics and Microengineering, 2018, 28, 017001.	2.6	4
38	Parallel vortex shedding at $Re \approx 10^4$: a transverse control cylinder technique approach. Journal of Fluid Mechanics, 2005, 541, 143.	3.4	3
39	Approximate mapping method for prediction of chaotic mixing in spatial-periodic microchannel. Chemical Engineering Research and Design, 2010, 88, 1419-1426.	5.6	2
40	Design and Fabrication of the Vertical-Flow Bioreactor for Compaction Hepatocyte Culture in Drug Testing Application. Biosensors, 2021, 11, 160.	4.7	2
41	Optimization Synthesis of Morphologically Homogeneous and Rod-Like Structure Barium Trinitroresorcinate Produced by Segmented Flow. Journal of Chemical Engineering of Japan, 2018, 51, 524-529.	0.6	1
42	A facile method for microfluidic metering and transport. Microfluidics and Nanofluidics, 2021, 25, 1.	2.2	1
43	Numerical and experimental observation of chaotic mixing in microfluidic mixer. Journal of Visualization, 2005, 8, 291-291.	1.8	0