

# Huanming Xia

## List of Publications by Year in descending order

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43  
papers

1,043  
citations

430754

18  
h-index

414303

32  
g-index

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. <i>Lab on A Chip</i> , 2005, 5, 748.	3.1	211
2	Tunable particle separation in a hybrid dielectrophoresis (DEP)- inertial microfluidic device. <i>Sensors and Actuators B: Chemical</i> , 2018, 267, 14-25.	4.0	99
3	Femtosecond laser-induced modification of surface wettability of PMMA for fluid separation in microchannels. <i>Microfluidics and Nanofluidics</i> , 2011, 10, 225-229.	1.0	47
4	High-Throughput Separation of White Blood Cells From Whole Blood Using Inertial Microfluidics. <i>IEEE Transactions on Biomedical Circuits and Systems</i> , 2017, 11, 1422-1430.	2.7	47
5	A microfluidic mixer with self-excited $\hat{\epsilon}$ -turbulent <sup>TM</sup> fluid motion for wide viscosity ratio applications. <i>Lab on A Chip</i> , 2010, 10, 1712.	3.1	46
6	Investigation of hot roller embossing for microfluidic devices. <i>Journal of Micromechanics and Microengineering</i> , 2010, 20, 015017.	1.5	46
7	Influence of the Reynolds number on chaotic mixing in a spatially periodic micromixer and its characterization using dynamical system techniques. <i>Journal of Micromechanics and Microengineering</i> , 2006, 16, 53-61.	1.5	43
8	Passive Micromixer Platform for Size- and Shape-Controllable Preparation of Ultrafine HNS. <i>Industrial &amp; Engineering Chemistry Research</i> , 2019, 58, 16709-16718.	1.8	42
9	Live human nasal epithelial cells (hNECs) on chip for in vitro testing of gaseous formaldehyde toxicity via airway delivery. <i>Lab on A Chip</i> , 2014, 14, 677-680.	3.1	37
10	Converting steady laminar flow to oscillatory flow through a hydroelasticity approach at microscales. <i>Lab on A Chip</i> , 2012, 12, 60-64.	3.1	34
11	Nonlinear microfluidics: device physics, functions, and applications. <i>Lab on A Chip</i> , 2021, 21, 1241-1268.	3.1	32
12	Microfluidic Platform for Preparation and Screening of Narrow Size-Distributed Nanoscale Explosives and Supermixed Composite Explosives. <i>Industrial &amp; Engineering Chemistry Research</i> , 2018, 57, 13191-13204.	1.8	30
13	Digital microfluidic platform for automated detection of human chorionic gonadotropin. <i>Microfluidics and Nanofluidics</i> , 2019, 23, 1.	1.0	28
14	Anti-solvent precipitation of solid lipid nanoparticles using a microfluidic oscillator mixer. <i>Microfluidics and Nanofluidics</i> , 2015, 19, 283-290.	1.0	25
15	An efficient micromixer combining oscillatory flow and divergent circular chambers. <i>Microsystem Technologies</i> , 2019, 25, 2741-2750.	1.2	25
16	Continuous spheroidization strategy for explosives with micro/nano hierarchical structure by coupling microfluidics and spray drying. <i>Chemical Engineering Journal</i> , 2021, 412, 128613.	6.6	21
17	Analyzing the transition pressure and viscosity limit of a hydroelastic microfluidic oscillator. <i>Applied Physics Letters</i> , 2014, 104, 024101.	1.5	20
18	Microfluidic strategy for rapid and high-quality control of crystal morphology of explosives. <i>Reaction Chemistry and Engineering</i> , 2020, 5, 1093-1103.	1.9	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.	1.9	16
20	A vertical-flow bioreactor array compacts hepatocytes for enhanced polarity and functions. Lab on A Chip, 2016, 16, 3898-3908.	3.1	15
21	The negative-differential-resistance (NDR) mechanism of a hydroelastic microfluidic oscillator. Journal of Micromechanics and Microengineering, 2017, 27, 075001.	1.5	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.	1.2	15
23	Microfluidic strategy for coating and modification of polymer-bonded nano-HNS explosives. Chemical Engineering Journal, 2022, 428, 131096.	6.6	15
24	TECHNIQUES TO ENHANCE FLUID MICRO-MIXING AND CHAOTIC MICROMIXERS. Modern Physics Letters B, 2005, 19, 1567-1570.	1.0	13
25	Microfluidic Synthesis of Size-Controlled and Morphologically Homogeneous Lead Trinitroresorcinate Produced by Segmented Flow. Propellants, Explosives, Pyrotechnics, 2016, 41, 899-905.	1.0	12
26	Reducing the membrane fouling in cross-flow filtration using a facile fluidic oscillator. Separation and Purification Technology, 2021, 272, 118854.	3.9	10
27	Micro-Segmented Flow Technology Applied for Synthesis and Shape Control of Lead Styphnate Micro-Particles. Propellants, Explosives, Pyrotechnics, 2018, 43, 286-293.	1.0	9
28	Synchronized generation and coalescence of largely dissimilar microdroplets governed by pulsating continuous-phase flow. Applied Physics Letters, 2019, 114, .	1.5	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.	1.3	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.	2.0	7
31	A droplet platform capable of handling dissimilar liquids and its application for separation of bacteria from blood. Biomicrofluidics, 2020, 14, 034102.	1.2	7
32	Aeroelasticity-based fluid agitation for lab-on-chips. Lab on A Chip, 2013, 13, 1619.	3.1	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.	2.7	5
34	Numerical analysis and characterization of a Wankel pump as a miniaturized mixer. Journal of Micromechanics and Microengineering, 2015, 25, 084001.	1.5	5
35	Microfluidic mixing through oscillatory transverse perturbations. Modern Physics Letters B, 2018, 32, 1840030.	1.0	5
36	Fluid Micromixing Technology and Its Applications for Biological and Chemical Processes. IFMBE Proceedings, 2007, , 16-20.	0.2	5

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37	Integrated aeroelastic vibrator for fluid mixing in open microwells. Journal of Micromechanics and Microengineering, 2018, 28, 017001.	1.5	4
38	Parallel vortex shedding at $Re \approx 10^4$ a transverse control cylinder technique approach. Journal of Fluid Mechanics, 2005, 541, 143.	1.4	3
39	Approximate mapping method for prediction of chaotic mixing in spatial-periodic microchannel. Chemical Engineering Research and Design, 2010, 88, 1419-1426.	2.7	2
40	Design and Fabrication of the Vertical-Flow Bioreactor for Compaction Hepatocyte Culture in Drug Testing Application. Biosensors, 2021, 11, 160.	2.3	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.	0.3	1
42	A facile method for microfluidic metering and transport. Microfluidics and Nanofluidics, 2021, 25, 1.	1.0	1
43	Numerical and experimental observation of chaotic mixing in microfluidic mixer. Journal of Visualization, 2005, 8, 291-291.	1.1	0