Xunli Zhang

List of Publications by Year
in descending order

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101 papers	4,114 citations	109321 35 h-index	123424 61 g-index
104 all docs	104 docs citations	104 times ranked	4640 citing authors

#	Article	IF	Citations
1	Continuous flow nitration of 3-[2-chloro-4-(trifluoromethyl) phenoxy] benzoic acid and its chemical kinetics within droplet-based microreactors. Chemical Engineering Science, 2022, 255, 117657.	3.8	9
2	A SARS-Cov-2 sensor based on upconversion nanoparticles and graphene oxide. RSC Advances, 2022, 12, 18445-18449.	3.6	11
3	COVID-19 Crisis Creates Opportunity towards Global Monitoring & Surveillance. Pathogens, 2021, 10, 256.	2.8	13
4	Biogenic Nanoparticles: Synthesis, Characterisation and Applications. Applied Sciences (Switzerland), 2021, 11, 2598.	2.5	79
5	The temperature stability and development of a broadband silver nanofluid for solar thermal applications. Energy Reports, 2021, 7, 87-96.	5.1	2
6	Hydrodynamic characterization of continuous flow of Pickering droplets with solid nanoparticles in microchannel reactors. Chemical Engineering Science, 2021, 245, 116838.	3.8	11
7	3D printed reactor-in-a-centrifuge (RIAC): Making flow-synthesis of nanoparticles pump-free and cost-effective. Chemical Engineering Journal, 2021, 425, 130656.	12.7	7
8	A Review of Biodegradable Natural Polymer-Based Nanoparticles for Drug Delivery Applications. Nanomaterials, 2020, 10, 1970.	4.1	156
9	Silver nanofluids based broadband solar absorber through tuning nanosilver geometries. Solar Energy, 2020, 208, 515-526.	6.1	12
10	Capillary-Driven Flow Microfluidics Combined with Smartphone Detection: An Emerging Tool for Point-of-Care Diagnostics. Diagnostics, 2020, 10, 509.	2.6	29
11	Continuous-Flow Production of Liposomes with a Millireactor under Varying Fluidic Conditions. Pharmaceutics, 2020, 12, 1001.	4.5	32
12	Glycoprotein- and Lectin-Based Approaches for Detection of Pathogens. Pathogens, 2020, 9, 694.	2.8	15
13	Decarbonising heating and hot water using solar thermal collectors coupled with thermal storage: The scale of the challenge. Energy Reports, 2020, 6, 25-34.	5.1	7
14	Fine tuning of surface properties of SiO2 nanoparticles for the regulation of Pickering emulsions. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2020, 592, 124603.	4.7	11
15	Microfluidics as an Emerging Platform for Tackling Antimicrobial Resistance (AMR): A Review. Current Analytical Chemistry, 2020, 16, 41-51.	1.2	21
16	Dynamic Coupling of Mass Transfer and Chemical Reaction for Taylor Flow along a Serpentine Microchannel. Industrial & Engineering Chemistry Research, 2020, 59, 9279-9292.	3.7	17
17	Design and Fabrication of Capillary-Driven Flow Device for Point-Of-Care Diagnostics. Biosensors, 2020, 10, 39.	4.7	16
18	Dynamics and controllability of droplet fusion under gasâ€“liquidâ€“liquid three-phase flow in a microfluidic reactor. RSC Advances, 2020, 10, 14322-14330.	3.6	6

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19	Design and Fabrication of Optical Flow Cell for Multiplex Detection of Î²-lactamase in Microchannels. Micromachines, 2020, 11, 385.	2.9	5
20	Thermal performance and physicochemical stability of silver nanoprism-based nanofluids for direct solar absorption. Solar Energy, 2020, 199, 366-376.	6.1	15
21	In vitro and ex vivo evaluation of the biological performance of sclerosing foams. Scientific Reports, 2019, 9, 9880.	3.3	5
22	Continuous flow production of size-controllable niosomes using a thermostatic microreactor. Colloids and Surfaces B: Biointerfaces, 2019, 182, 110378.	5.0	8
23	Reducing deposition of encrustation in ureteric stents by changing the stent architecture: A microfluidic-based investigation. Biomicrofluidics, 2019, 13, 014101.	2.4	30
24	Physical Vein Models to Quantify the Flow Performance of Sclerosing Foams. Frontiers in Bioengineering and Biotechnology, 2019, 7, 109.	4.1	6
25	Dynamic characterization of nanoparticles production in a droplet-based continuous flow microreactor. Chemical Engineering Research and Design, 2019, 144, 247-257.	5.6	14
26	Bacteria and nanosilver: the quest for optimal production. Critical Reviews in Biotechnology, 2019, 39, 272-287.	9.0	15
27	Dynamic changes in gas-liquid mass transfer during Taylor flow in long serpentine square microchannels. Chemical Engineering Science, 2018, 182, 17-27.	3.8	51
28	Easy-to-perform and cost-effective fabrication of continuous-flow reactors and their application for nanomaterials synthesis. New Biotechnology, 2018, 47, 1-7.	4.4	17
29	Particle Accumulation in Ureteral Stents Is Governed by Fluid Dynamics: In Vitro Study Using a â€œStent-on-Chipâ€•Model. Journal of Endourology, 2018, 32, 639-646.	2.1	30
30	Comparison of microsphere penetration with LC Bead LUMIâ„¢ versus other commercial microspheres. Journal of the Mechanical Behavior of Biomedical Materials, 2018, 78, 46-55.	3.1	23
31	Review of the Development of Methods for Characterization of Microspheres for Use in Embolotherapy: Translating Bench to Cathlab. Advanced Healthcare Materials, 2017, 6, 1601291.	7.6	54
32	A Bioengineered Three-Dimensional Cell Culture Platform Integrated with Microfluidics To Address Antimicrobial Resistance in Tuberculosis. MBio, 2017, 8, .	4.1	47
33	Impact of Yttrium-90 Microsphere Density, Flow Dynamics, and Administration Technique on Spatial Distribution: Analysis Using an In Vitro Model. Journal of Vascular and Interventional Radiology, 2017, 28, 260-268.e2.	0.5	19
34	Benefits of polidocanol endovenous microfoam (VarithenaÂ®) compared with physician-compounded foams. Phlebology, 2016, 31, 283-295.	1.2	38
35	Efficient NIR light blockage with matrix embedded silver nanoprism thin films for energy saving window coating. Journal of Materials Chemistry C, 2016, 4, 1584-1588.	5.5	28
36	Generation and Trapping of Ketenes in Flow. European Journal of Organic Chemistry, 2015, 2015, 1491-1499.	2.4	23

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37	Droplet Interfaced Parallel and Quantitative Microfluidic-Based Separations. Analytical Chemistry, 2015, 87, 3895-3901.	6.5	15
38	Spatiotemporal dynamics of doxorubicin elution from embolic beads within a microfluidic network. Journal of Controlled Release, 2015, 214, 62-75.	9.9	9
39	The role of clinically-relevant parameters on the cohesiveness of sclerosing foams in a biomimetic vein model. Journal of Materials Science: Materials in Medicine, 2015, 26, 258.	3.6	18
40	The role of acoustofluidics in targeted drug delivery. Biomicrofluidics, 2015, 9, 052609.	2.4	12
41	Investigating the Flow Dynamics in the Obstructed and Stented Ureter by Means of a Biomimetic Artificial Model. PLoS ONE, 2014, 9, e87433.	2.5	40
42	Improved Process for Pilot-Scale Synthesis of Danshensu ((Â±)-DSS) and Its Enantiomer Derivatives. Organic Process Research and Development, 2014, 18, 1667-1673.	2.7	19
43	In situ microspectroscopic monitoring within a microfluidic reactor. RSC Advances, 2014, 4, 14569-14572.	3.6	9
44	The effect of ultrasound-related stimuli on cell viability in microfluidic channels. Journal of Nanobiotechnology, 2013, 11, 20.	9.1	18
45	A novel biomimetic analysis system for quantitative characterisation of sclerosing foams used for the treatment of varicose veins. Journal of Materials Science: Materials in Medicine, 2013, 24, 1417-1423.	3.6	7
46	Microfluidic and lab-on-a-chip preparation routes for organic nanoparticles and vesicular systems for nanomedicine applications. Advanced Drug Delivery Reviews, 2013, 65, 1496-1532.	13.7	196
47	Production of polymeric micelles by microfluidic technology for combined drug delivery: Application to osteogenic differentiation of human periodontal ligament mesenchymal stem cells (hPDLSCs). International Journal of Pharmaceutics, 2013, 440, 195-206.	5.2	35
48	Microbial tribology and disruption of dental plaque bacterial biofilms. Wear, 2013, 306, 276-284.	3.1	27
49	Microfluidics-based continuous flow formation of triangular silver nanoprisms with tuneable surface plasmon resonance. Journal of Materials Chemistry C, 2013, 1, 7540.	5.5	23
50	An artificial model for studying fluid dynamics in the obstructed and stented ureter. , 2013, 2013, 5335-8.		4
51	A Microfluidic-Based Arteriolar Network Model for Biophysical and Bioanalytical Investigations. Current Analytical Chemistry, 2013, 9, 47-59.	1.2	8
52	Editorial (Mini Hot-Topic: Bioanalysis in Microscale Bioengineering). Current Analytical Chemistry, 2013, 9, 1-1.	1.2	0
53	Oscillation dynamics of embolic microspheres in flows with red blood cell suspensions. Journal of Applied Physics, 2012, 112, 124701.	2.5	3
54	Mechanism of co-nanoprecipitation of organic actives and block copolymers in a microfluidic environment. Nanotechnology, 2012, 23, 375602.	2.6	50

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55	Oscillations of methane oxidation over metallic nickel surfaces. Reaction Kinetics, Mechanisms and Catalysis, 2012, 107, 245-252.	1.7	6
56	Mithramycin encapsulated in polymeric micelles by microfluidic technology as novel therapeutic protocol for beta-thalassemia. International Journal of Nanomedicine, 2012, 7, 307.	6.7	20
57	A microfluidic device for the characterisation of embolisation with polyvinyl alcohol beads through biomimetic bifurcations. Biomedical Microdevices, 2012, 14, 153-163.	2.8	23
58	Editorial (Mini Hot-Topic: Bioanalysis in Microscale Bioengineering). Current Analytical Chemistry, 2012, 9, 1-1.	1.2	3
59	A Microfluidic-Based Arteriolar Network Model for Biophysical and Bioanalytical Investigations. Current Analytical Chemistry, 2012, 9, 47-59.	1.2	0
60	Micromixing Within Microfluidic Devices. Topics in Current Chemistry, 2011, 304, 27-68.	4.0	292
61	Optimised production of multifunctional microfibres by microfluidic chip technology for tissue engineering applications. Lab on A Chip, 2011, 11, 1776.	6.0	42
62	UV and visible light screening by individual sporopollenin exines derived from Lycopodium clavatum (club moss) and Ambrosia trifida (giant ragweed). Journal of Photochemistry and Photobiology B: Biology, 2011, 102, 209-217.	3.8	58
63	Continuous-flow production of polymeric micelles in microreactors: Experimental and computational analysis. Journal of Colloid and Interface Science, 2011, 357, 243-251.	9.4	39
64	Contrast agent-free sonoporation: The use of an ultrasonic standing wave microfluidic system for the delivery of pharmaceutical agents. Biomicrofluidics, 2011, 5, 44108-4410815.	2.4	53
65	Process optimization for the production of alginate microparticles containing wjmscs by a design of experiments (doe) approach. Journal of Controlled Release, 2010, 148, e76-e77.	9.9	3
66	Microfluidic reactors for controlled synthesis of polymeric micelles. Journal of Controlled Release, 2010, 148, e25-e26.	9.9	6
67	Production of low cost microfluidic chips by a â€œshrinkingâ€•approach: Applications to emulsion and microparticle production. Journal of Controlled Release, 2010, 148, e26-e28.	9.9	3
68	Cold sodium hydroxide/urea based pretreatment of bamboo for bioethanol production: Characterization of the cellulose rich fraction. Industrial Crops and Products, 2010, 32, 551-559.	5.2	132
69	Microfluidic-based measurements of cytochrome P450 enzyme activity of primary mammalian hepatocytes. Analyst, The, 2010, 135, 1282.	3.5	8
70	Monitoring of liquid flow through microtubes using a micropressure sensor. Chemical Engineering Research and Design, 2009, 87, 19-24.	5.6	5
71	Microwave assisted heterogeneous catalysis: effects of varying oxygen concentrations on the oxidative coupling of methane. Reaction Kinetics and Catalysis Letters, 2009, 98, 287-302.	0.6	8
72	Characterization of cellular chemical dynamics using combined microfluidic and Raman techniques. Analytical and Bioanalytical Chemistry, 2008, 390, 833-840.	3.7	73

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73	Attachment and detachment of living cells on modified microchannel surfaces in a microfluidic-based lab-on-a-chip system. Chemical Engineering Journal, 2008, 135, S82-S88.	12.7	54
74	Novel inorganic polymer derived microreactors for organic microchemistry applications. Lab on A Chip, 2008, 8, 1454.	6.0	49
75	Quantitative Comparison between Microfluidic and Microtiter Plate Formats for Cell-Based Assays. Analytical Chemistry, 2008, 80, 179-185.	6.5	24
76	Lab-on-a-Chip Microreactors. , 2008, , 1721-1737.		0
77	Influence of Hydrodynamic Conditions on Quantitative Cellular Assays in Microfluidic Systems. Analytical Chemistry, 2007, 79, 7139-7144.	6.5	35
78	Continuous flow separation of particles within an asymmetric microfluidic device. Lab on A Chip, 2006, 6, 561.	6.0	38
79	Applications of microwave dielectric heating in environment-related heterogeneous gas-phase catalytic systems. Inorganica Chimica Acta, 2006, 359, 3421-3433.	2.4	160
80	A microfluidic-based system for analysis of single cells based on Ca2+ flux. Electrophoresis, 2006, 27, 5093-5100.	2.4	33
81	Materials Matter in Microfluidic Devices. MRS Bulletin, 2006, 31, 95-99.	3.5	65
82	Oscillatory behaviour observed in the rate of oxidation of methane over metal catalysts. Catalysis Today, 2005, 105, 283-294.	4.4	51
83	Effects of Microwave Dielectric Heating on Heterogeneous Catalysis. Catalysis Letters, 2003, 88, 33-38.	2.6	171
84	Carbon Dioxide Reforming of Methane with Pt Catalysts Using Microwave Dielectric Heating. Catalysis Letters, 2003, 88, 129-139.	2.6	83
85	Further Studies on Oscillations over Nickel Wires During the Partial Oxidation of Methane. Catalysis Letters, 2003, 86, 235-243.	2.6	48
86	Monitoring of chemical reactions within microreactors using an inverted Raman microscopic spectrometer. Electrophoresis, 2003, 24, 3239-3245.	2.4	88
87	Oscillatory behaviour during the oxidation of methane over palladium metal catalysts. Applied Catalysis A: General, 2003, 240, 183-197.	4.3	62
88	Oscillatory behaviour during the partial oxidation of methane over cobalt wires and foils. Applied Catalysis A: General, 2003, 248, 129-142.	4.3	35
89	Oxidative coupling of methane using microwave dielectric heating. Applied Catalysis A: General, 2003, 249, 151-164.	4.3	49
90	Electrokinetic control of a chemical reaction in a lab-on-a-chip micro-reactor: measurement and quantitative modellingElectronic supplementary information (ESI) available. The first video file (run2) Tj ETQq0 0 0 rgBT /Overlock 10 Tf absorbance. The sequence shows the PADA injection followed by reaction when the 'flow' mode is restarted. The second file (run2 Complex 550nm.avi) shows the corresponding image sequence recorded at 550 nm where the co. Lab on A Chip, 2002, 2, 102.	6.0	36

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91	Micro reactors: principles and applications in organic synthesis. Tetrahedron, 2002, 58, 4735-4757.	1.9	456
92	Oscillatory Behavior During the Partial Oxidation of Methane Over Nickel Foils. Catalysis Letters, 2002, 83, 149-155.	2.6	40
93	Dielectric Properties of MoS2 and Pt Catalysts: Effects of Temperature and Microwave Frequency. Catalysis Letters, 2002, 84, 225-233.	2.6	32
94	Microwave Dielectric Heating Behavior of Supported MoS2and Pt Catalysts. Industrial & Engineering Chemistry Research, 2001, 40, 2810-2817.	3.7	41
95	Quantitative 3-dimensional profiling of channel networks within transparent â€˜lab-on-a-chipâ€™ microreactors using a digital imaging method. Lab on A Chip, 2001, 1, 66-71.	6.0	29
96	Electrical currents and liquid flow rates in micro-reactors. Lab on A Chip, 2001, 1, 115.	6.0	20
97	Rate oscillations during partial oxidation of methane over chromelâ€“alumel thermocouples. Catalysis Letters, 2001, 72, 147-152.	2.6	42
98	Microwave assisted catalytic reduction of sulfur dioxide with methane over MoS2 catalysts. Applied Catalysis B: Environmental, 2001, 33, 137-148.	20.2	91
99	Apparent equilibrium shifts and hot-spot formation for catalytic reactions induced by microwave dielectric heating. Chemical Communications, 1999, , 975-976.	4.1	132
100	Capillary-driven flow microfluidics devices for point-of-care diagnostics. , 0, , .		0
101	ENHANCED PATHOGEN DETECTION AND CELL CONCENTRATION USING ACOUSTOPHORETIC DEPOSITION ON SURFACES. , 0, , .		0