Chang Lu

List of Publications by Year
in descending order

94 papers	3,582 citations	117453 34 h-index	149479 56 g-index
102 all docs	102 docs citations	102 times ranked	4071 citing authors

#	Article	IF	Citations
1	UHV, Electrochemical NMR, and Electrochemical Studies of Platinum/Ruthenium Fuel Cell Catalysts. Journal of Physical Chemistry B, 2002, 106, 9581-9589.	1.2	181
2	UHV and electrochemical studies of CO and methanol adsorbed at platinum/ruthenium surfaces, and reference to fuel cell catalysis. Electrochimica Acta, 2002, 47, 3637-3652.	2.6	179
3	Microfluidic electroporation for cellular analysis and delivery. Lab on A Chip, 2013, 13, 3803-3821.	3.1	174
4	Electroporation of Mammalian Cells in a Microfluidic Channel with Geometric Variation. Analytical Chemistry, 2006, 78, 5158-5164.	3.2	145
5	A microfluidic flow-through device for high throughput electrical lysis of bacterial cells based on continuous dc voltage. Biosensors and Bioelectronics, 2006, 22, 582-588.	5.3	135
6	Electroporation of Cells in Microfluidic Droplets. Analytical Chemistry, 2009, 81, 2027-2031.	3.2	126
7	Recent advances in the use of microfluidic technologies for single cell analysis. Analyst, The, 2018, 143, 60-80.	1.7	121
8	A microfluidic device for epigenomic profiling using 100 cells. Nature Methods, 2015, 12, 959-962.	9.0	111
9	Acid loaded porous silicon as a proton exchange membrane for micro-fuel cells. Journal of Power Sources, 2004, 135, 198-203.	4.0	88
10	Flow-through electroporation based on constant voltage for large-volume transfection of cells. Journal of Controlled Release, 2010, 144, 91-100.	4.8	86
11	Quantum Dot (QD)-Modified Carbon Tape Electrodes for Reproducible Electrochemiluminescence (ECL) Emission on a Paper-Based Platform. Analytical Chemistry, 2012, 84, 3033-3038.	3.2	86
12	Prolonged epigenomic and synaptic plasticity alterations following single exposure to a psychedelic in mice. Cell Reports, 2021, 37, 109836.	2.9	82
13	Droplet sorting based on the number of encapsulated particles using a solenoid valve. Lab on A Chip, 2013, 13, 171-178.	3.1	81
14	Transfection of cells using flow-through electroporation based on constant voltage. Nature Protocols, 2011, 6, 1192-1208.	5.5	71
15	Recent advances in electric analysis of cells in microfluidic systems. Analytical and Bioanalytical Chemistry, 2008, 391, 933-942.	1.9	70
16	The Effect of Ruthenium on the Binding of CO, H2, and H2O on Pt(110). Journal of Physical Chemistry B, 2001, 105, 9793-9797.	1.2	69
17	Microfluidic electroporation for delivery of small molecules and genes into cells using a common DC power supply. Biotechnology and Bioengineering, 2008, 100, 579-586.	1.7	63
18	Microfluidic CARS cytometry. Optics Express, 2008, 16, 5782.	1.7	63

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19	Microfluidic Electroporative Flow Cytometry for Studying Single-Cell Biomechanics. Analytical Chemistry, 2008, 80, 7714-7719.	3.2	60
20	Microfluidic delivery of small molecules into mammalian cells based on hydrodynamic focusing. Biotechnology and Bioengineering, 2008, 100, 150-158.	1.7	57
21	Intracellular Tracking of Single Native Molecules with Electroporation-Delivered Quantum Dots. Analytical Chemistry, 2014, 86, 11403-11409.	3.2	57
22	Vortex-assisted DNA delivery. Lab on A Chip, 2010, 10, 2057.	3.1	54
23	Microfluidic electroporation of tumor and blood cells: observation of nucleus expansion and implications on selective analysis and purging of circulating tumor cells. Integrative Biology (United) Tj ETQq1 1 0.784314 rgBT /Overlock		
24	High-throughput and real-time study of single cell electroporation using microfluidics: Effects of medium osmolarity. Biotechnology and Bioengineering, 2006, 95, 1116-1125.	1.7	53
25	Low-frequency ac electroporation shows strong frequency dependence and yields comparable transfection results to dc electroporation. Journal of Controlled Release, 2012, 160, 570-576.	4.8	51
26	Chemical Transfection of Cells in Picoliter Aqueous Droplets in Fluorocarbon Oil. Analytical Chemistry, 2011, 83, 8816-8820.	3.2	49
27	Microfluidic cell fusion under continuous direct current voltage. Applied Physics Letters, 2006, 89, 234102.	1.5	46
28	Correlations between the Heat of Adsorption and the Position of the Center of the D-Band:â€‰ Differences between Computation and Experiment. Journal of Physical Chemistry A, 2002, 106, 3084-3091.	1.1	45
29	Genomic DNA Extraction from Cells by Electroporation on an Integrated Microfluidic Platform. Analytical Chemistry, 2012, 84, 9632-9639.	3.2	45
30	Quantification of bacterial cells based on autofluorescence on a microfluidic platform. Journal of Chromatography A, 2008, 1181, 153-158.	1.8	42
31	A microfluidic device for physical trapping and electrical lysis of bacterial cells. Applied Physics Letters, 2008, 92, .	1.5	40
32	Microfluidic chemical cytometry based on modulation of local field strength. Chemical Communications, 2006, , 3528.	2.2	37
33	Release of Intracellular Proteins by Electroporation with Preserved Cell Viability. Analytical Chemistry, 2012, 84, 8102-8105.	3.2	37
34	Histone modification analysis by chromatin immunoprecipitation from a low number of cells on a microfluidic platform. Lab on A Chip, 2011, 11, 2842.	3.1	35
35	Low-input and multiplexed microfluidic assay reveals epigenomic variation across cerebellum and prefrontal cortex. Science Advances, 2018, 4, eaar8187.	4.7	35
36	Microfluidic Cell Electroporation Using a Mechanical Valve. Analytical Chemistry, 2007, 79, 9584-9587.	3.2	34

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37	A microfluidic cell array with individually addressable culture chambers. Biosensors and Bioelectronics, 2008, 24, 613-617.	5.3	34
38	Detection of Kinase Translocation Using Microfluidic Electroporative Flow Cytometry. Analytical Chemistry, 2008, 80, 1087-1093.	3.2	34
39	A Nanoporous Silicon Membrane Electrode Assembly for On-Chip Micro Fuel Cell Applications. Journal of Microelectromechanical Systems, 2006, 15, 671-677.	1.7	33
40	Microfluidics for genome-wide studies involving next generation sequencing. Biomicrofluidics, 2017, 11, 021501.	1.2	29
41	Cell-type-specific brain methylomes profiled via ultralow-input microfluidics. Nature Biomedical Engineering, 2018, 2, 183-194.	11.6	29
42	MOWChIP-seq for low-input and multiplexed profiling of genome-wide histone modifications. Nature Protocols, 2019, 14, 3366-3394.	5.5	29
43	One-step extraction of subcellular proteins from eukaryotic cells. Lab on A Chip, 2010, 10, 2046.	3.1	27
44	Microfluidic electroporation for selective release of intracellular molecules at the singleâ€cell level. Electrophoresis, 2008, 29, 2939-2944.	1.3	26
45	Total Internal Reflection Fluorescence Flow Cytometry. Analytical Chemistry, 2008, 80, 9840-9844.	3.2	25
46	A Microfluidic Device with Integrated Sonication and Immunoprecipitation for Sensitive Epigenetic Assays. Analytical Chemistry, 2016, 88, 1965-1972.	3.2	24
47	Paramagnetic Structures within a Microfluidic Channel for Enhanced Immunomagnetic Isolation and Surface Patterning of Cells. Scientific Reports, 2016, 6, 29407.	1.6	23
48	Immunomagnetic separation of tumor initiating cells by screening two surface markers. Scientific Reports, 2017, 7, 40632.	1.6	23
49	Single-cell electrical lysis of erythrocytes detects deficiencies in the cytoskeletal protein network. Lab on A Chip, 2011, 11, 3053.	3.1	21
50	Electroporation-based delivery of cell-penetrating peptide conjugates of peptide nucleic acids for antisense inhibition of intracellular bacteria. Integrative Biology (United Kingdom), 2014, 6, 973-978.	0.6	20
51	Epigenomic and transcriptomic analyses reveal differences between low-grade inflammation and severe exhaustion in LPS-challenged murine monocytes. Communications Biology, 2022, 5, 102.	2.0	20
52	Quantitative analysis of protein translocations by microfluidic total internal reflection fluorescence flow cytometry. Lab on A Chip, 2010, 10, 2673.	3.1	19
53	Diffusion-based microfluidic PCR for â€œone-potâ€•analysis of cells. Lab on A Chip, 2014, 14, 2905-2909.	3.1	19
54	On-chip manufacturing of synthetic proteins for point-of-care therapeutics. Microsystems and Nanoengineering, 2019, 5, 13.	3.4	19

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55	Microfluidic Low-Input Fluidized-Bed Enabled ChIP-seq Device for Automated and Parallel Analysis of Histone Modifications. Analytical Chemistry, 2018, 90, 7666-7674.	3.2	18
56	Kinetics of NF-ÎºB nucleocytoplasmic transport probed by single-cell screening without imaging. Lab on A Chip, 2010, 10, 2911.	3.1	17
57	Electroporation-delivered fluorescent protein biosensors for probing molecular activities in cells without genetic encoding. Chemical Communications, 2014, 50, 11536-11539.	2.2	17
58	Thermal loading in flow-through electroporation microfluidic devices. Lab on A Chip, 2013, 13, 3119-3127.	3.1	16
59	BRCA1 mutations attenuate super-enhancer function and chromatin looping in haploinsufficient human breast epithelial cells. Breast Cancer Research, 2019, 21, 51.	2.2	16
60	A diffusion-based microfluidic device for single-cell RNA-seq. Lab on A Chip, 2019, 19, 1247-1256.	3.1	16
61	Cell-type-specific brain methylomes profiled via ultralow-input microfluidics. Nature Biomedical Engineering, 2018, 2, 183-194.	11.6	15
62	Single molecule Î»-DNA stretching studied by microfluidics and single particle tracking. Journal of Applied Physics, 2007, 102, 074703.	1.1	14
63	Characterizing osmotic lysis kinetics under microfluidic hydrodynamic focusing for erythrocyte fragility studies. Lab on A Chip, 2012, 12, 5063.	3.1	14
64	Effects of Culture Condition on Epigenomic Profiles of Brain Tumor Cells. ACS Biomaterials Science and Engineering, 2019, 5, 1544-1552.	2.6	14
65	Microfluidic Platform for Next-Generation Sequencing Library Preparation with Low-Input Samples. Analytical Chemistry, 2020, 92, 2519-2526.	3.2	14
66	Observing Single Cell NF-ÎºB Dynamics under Stimulant Concentration Gradient. Analytical Chemistry, 2012, 84, 1224-1228.	3.2	13
67	Chemistry of Methoxonium on (2 Ã— 1)Pt(110). Journal of Physical Chemistry B, 2001, 105, 8583-8590.	1.2	12
68	Modulating DNA adsorption on silica beads using an electrical switch. Chemical Communications, 2009, , 800-802.	2.2	12
69	Flow effects in the laser-induced thermal loading of optical traps and optofluidic devices. Optics Express, 2014, 22, 23938.	1.7	12
70	RNA Extraction from a Mycobacterium under Ultrahigh Electric Field Intensity in a Microfluidic Device. Analytical Chemistry, 2016, 88, 5053-5057.	3.2	12
71	Interleukin-1Î²-induced IRAK1 ubiquitination is required for TH-GM-CSF cell differentiation in T cell-mediated inflammation. Journal of Autoimmunity, 2019, 102, 50-64.	3.0	12
72	Evidence for a cation intermediate during methanol dehydration on Pt(110). Catalysis Letters, 2001, 72, 167-175.	1.4	11

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73	Microfluidic epigenomic mapping technologies for precision medicine. Lab on A Chip, 2019, 19, 2630-2650.	3.1	11
74	Phenylbutyrate facilitates homeostasis of non-resolving inflammatory macrophages. Innate Immunity, 2020, 26, 62-72.	1.1	11
75	Catalytic oxidation of odorous organic acids. Catalysis Today, 2000, 62, 347-353.	2.2	10
76	Quantitative measurement of quantum dot uptake at the cell population level using microfluidic evanescent-wave-based flow cytometry. Lab on A Chip, 2012, 12, 1441.	3.1	9
77	Detecting intracellular translocation of native proteins quantitatively at the single cell level. Chemical Science, 2014, 5, 2530-2535.	3.7	9
78	Microfluidic MeDIP-seq for low-input methylomic analysis of mammary tumorigenesis in mice. Analyst, The, 2019, 144, 1904-1915.	1.7	8
79	Rapid Electrical Lysis of Bacterial Cells in a Microfluidic Device. Methods in Molecular Biology, 2007, 385, 23-35.	0.4	7
80	Focusing of mammalian cells under an ultrahigh pH gradient created by unidirectional electropulsation in a confined microchamber. Chemical Science, 2014, 5, 3331-3337.	3.7	6
81	Microfluidics-Based Chromosome Conformation Capture (3C) Technology for Examining Chromatin Organization with a Low Quantity of Cells. Analytical Chemistry, 2018, 90, 3714-3719.	3.2	6
82	Separation of denatured proteins in free solution on a microchip based on differential binding of alkyl sulfates with different carbon chain lengths. Chemical Communications, 2005, , 183.	2.2	5
83	Gene delivery by microfluidic flow-through electroporation based on constant DC and AC field. , 2012, 2012, 2579-82.		4
84	Microfluidics-Based Lysis of Bacteria and Spores for Detection and Analysis. , 2008, , 817-831.		3
85	Multiplexed and Ultralow-Input ChIP-seq Enabled by Tagmentation-Based Indexing and Facile Microfluidics. Analytical Chemistry, 2020, 92, 13661-13666.	3.2	3
86	Microfluidic Chromatin Immunoprecipitation for Analysis of Epigenomic Regulations. , 2016, , 349-363.		2
87	Cell-type-specific epigenomic variations associated with BRCA1 mutation in pre-cancer human breast tissues. NAR Genomics and Bioinformatics, 2022, 4, lqac006.	1.5	2
88	Ultrasensitive Analysis of Individual Cells via Droplet Microfluidics. , 0, , 143-157.		1
89	nMOWChIP-seq: low-input genome-wide mapping of non-histone targets. NAR Genomics and Bioinformatics, 2022, 4, lqac030.	1.5	1
90	Capillary Electrophoresis of Nucleic Acids at the Single-Cell Level. , 0, , 75-91.		0

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91	Microfluidic Technology for Single-Cell Analysis. , 0, , 93-106.		0
92	Microfluidic Devices for Cellular Proteomic Studies. , 2013, , 161-184.		0
93	Optimal Design of Microfluidic Platforms for Diffusion-Based PCR for â€œOne-Potâ€•Analysis of Cells. Computer Aided Chemical Engineering, 2015, , 1199-1204.	0.3	0
94	Quantitative Detection of Nucleocytoplasmic Transport of Native Proteins in Single Cells. Methods in Molecular Biology, 2015, 1346, 239-252.	0.4	0