Chang Lu

List of Publications by Year
in descending order

94 papers	3,582 citations	134610 34 h-index	169272 56 g-index
102 all docs	102 docs citations	102 times ranked	4644 citing authors

#	Article	IF	Citations
1	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
2	Cell-type-specific epigenomic variations associated with <i>BRCA1</i> mutation in pre-cancer human breast tissues. NAR Genomics and Bioinformatics, 2022, 4, lqac006.	1.5	2
3	nMOWChIP-seq: low-input genome-wide mapping of non-histone targets. NAR Genomics and Bioinformatics, 2022, 4, lqac030.	1.5	1
4	Prolonged epigenomic and synaptic plasticity alterations following single exposure to a psychedelic in mice. Cell Reports, 2021, 37, 109836.	2.9	82
5	Microfluidic Platform for Next-Generation Sequencing Library Preparation with Low-Input Samples. Analytical Chemistry, 2020, 92, 2519-2526.	3.2	14
6	Phenylbutyrate facilitates homeostasis of non-resolving inflammatory macrophages. Innate Immunity, 2020, 26, 62-72.	1.1	11
7	Multiplexed and Ultralow-Input ChIP-seq Enabled by Tagmentation-Based Indexing and Facile Microfluidics. Analytical Chemistry, 2020, 92, 13661-13666.	3.2	3
8	Microfluidic epigenomic mapping technologies for precision medicine. Lab on A Chip, 2019, 19, 2630-2650.	3.1	11
9	MOWChIP-seq for low-input and multiplexed profiling of genome-wide histone modifications. Nature Protocols, 2019, 14, 3366-3394.	5.5	29
10	Microfluidic MeDIP-seq for low-input methylomic analysis of mammary tumorigenesis in mice. Analyst, The, 2019, 144, 1904-1915.	1.7	8
11	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
12	BRCA1 mutations attenuate super-enhancer function and chromatin looping in haploinsufficient human breast epithelial cells. Breast Cancer Research, 2019, 21, 51.	2.2	16
13	On-chip manufacturing of synthetic proteins for point-of-care therapeutics. Microsystems and Nanoengineering, 2019, 5, 13.	3.4	19
14	Effects of Culture Condition on Epigenomic Profiles of Brain Tumor Cells. ACS Biomaterials Science and Engineering, 2019, 5, 1544-1552.	2.6	14
15	A diffusion-based microfluidic device for single-cell RNA-seq. Lab on A Chip, 2019, 19, 1247-1256.	3.1	16
16	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
17	Cell-type-specific brain methylomes profiled via ultralow-input microfluidics. Nature Biomedical Engineering, 2018, 2, 183-194.	11.6	29
18	Low-input and multiplexed microfluidic assay reveals epigenomic variation across cerebellum and prefrontal cortex. Science Advances, 2018, 4, eaar8187.	4.7	35

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19	Recent advances in the use of microfluidic technologies for single cell analysis. Analyst, The, 2018, 143, 60-80.	1.7	121
20	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
21	Cell-type-specific brain methylomes profiled via ultralow-input microfluidics. Nature Biomedical Engineering, 2018, 2, 183-194.	11.6	15
22	Immunomagnetic separation of tumor initiating cells by screening two surface markers. Scientific Reports, 2017, 7, 40632.	1.6	23
23	Microfluidics for genome-wide studies involving next generation sequencing. Biomicrofluidics, 2017, 11, 021501.	1.2	29
24	Paramagnetic Structures within a Microfluidic Channel for Enhanced Immunomagnetic Isolation and Surface Patterning of Cells. Scientific Reports, 2016, 6, 29407.	1.6	23
25	Microfluidic Chromatin Immunoprecipitation for Analysis of Epigenomic Regulations. , 2016, , 349-363.		2
26	RNA Extraction from a Mycobacterium under Ultrahigh Electric Field Intensity in a Microfluidic Device. Analytical Chemistry, 2016, 88, 5053-5057.	3.2	12
27	A Microfluidic Device with Integrated Sonication and Immunoprecipitation for Sensitive Epigenetic Assays. Analytical Chemistry, 2016, 88, 1965-1972.	3.2	24
28	A microfluidic device for epigenomic profiling using 100 cells. Nature Methods, 2015, 12, 959-962.	9.0	111
29	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
30	Quantitative Detection of Nucleocytoplasmic Transport of Native Proteins in Single Cells. Methods in Molecular Biology, 2015, 1346, 239-252.	0.4	0
31	Flow effects in the laser-induced thermal loading of optical traps and optofluidic devices. Optics Express, 2014, 22, 23938.	1.7	12
32	Intracellular Tracking of Single Native Molecules with Electroporation-Delivered Quantum Dots. Analytical Chemistry, 2014, 86, 11403-11409.	3.2	57
33	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
34	Electroporation-delivered fluorescent protein biosensors for probing molecular activities in cells without genetic encoding. Chemical Communications, 2014, 50, 11536-11539.	2.2	17
35	Detecting intracellular translocation of native proteins quantitatively at the single cell level. Chemical Science, 2014, 5, 2530-2535.	3.7	9
36	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

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37	Diffusion-based microfluidic PCR for â€œone-potâ€•analysis of cells. Lab on A Chip, 2014, 14, 2905-2909.	3.1	19
38	Thermal loading in flow-through electroporation microfluidic devices. Lab on A Chip, 2013, 13, 3119-3127.	3.1	16
39	Microfluidic electroporation for cellular analysis and delivery. Lab on A Chip, 2013, 13, 3803-3821.	3.1	174
40	Droplet sorting based on the number of encapsulated particles using a solenoid valve. Lab on A Chip, 2013, 13, 171-178.	3.1	81
41	Microfluidic Devices for Cellular Proteomic Studies. , 2013, , 161-184.		0
42	Gene delivery by microfluidic flow-through electroporation based on constant DC and AC field. , 2012, 2012, 2579-82.		4
43	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
44	Genomic DNA Extraction from Cells by Electroporation on an Integrated Microfluidic Platform. Analytical Chemistry, 2012, 84, 9632-9639.	3.2	45
45	Release of Intracellular Proteins by Electroporation with Preserved Cell Viability. Analytical Chemistry, 2012, 84, 8102-8105.	3.2	37
46	Observing Single Cell NF-Î°B Dynamics under Stimulant Concentration Gradient. Analytical Chemistry, 2012, 84, 1224-1228.	3.2	13
47	Characterizing osmotic lysis kinetics under microfluidic hydrodynamic focusing for erythrocyte fragility studies. Lab on A Chip, 2012, 12, 5063.	3.1	14
48	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
49	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
50	Chemical Transfection of Cells in Picoliter Aqueous Droplets in Fluorocarbon Oil. Analytical Chemistry, 2011, 83, 8816-8820.	3.2	49
51	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
52	Single-cell electrical lysis of erythrocytes detects deficiencies in the cytoskeletal protein network. Lab on A Chip, 2011, 11, 3053.	3.1	21
53	Transfection of cells using flow-through electroporation based on constant voltage. Nature Protocols, 2011, 6, 1192-1208.	5.5	71
54	Flow-through electroporation based on constant voltage for large-volume transfection of cells. Journal of Controlled Release, 2010, 144, 91-100.	4.8	86

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55	Vortex-assisted DNA delivery. Lab on A Chip, 2010, 10, 2057.	3.1	54
56	Kinetics of NF-Î°B nucleocytoplasmic transport probed by single-cell screening without imaging. Lab on A Chip, 2010, 10, 2911.	3.1	17
57	Quantitative analysis of protein translocations by microfluidic total internal reflection fluorescence flow cytometry. Lab on A Chip, 2010, 10, 2673.	3.1	19
58	One-step extraction of subcellular proteins from eukaryotic cells. Lab on A Chip, 2010, 10, 2046.	3.1	27
59	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 rg BT /Overlo	2.6	34
60	Electroporation of Cells in Microfluidic Droplets. Analytical Chemistry, 2009, 81, 2027-2031.	3.2	126
61	Modulating DNA adsorption on silica beads using an electrical switch. Chemical Communications, 2009, , 800-802.	2.2	12
62	A microfluidic cell array with individually addressable culture chambers. Biosensors and Bioelectronics, 2008, 24, 613-617.	5.3	34
63	Recent advances in electric analysis of cells in microfluidic systems. Analytical and Bioanalytical Chemistry, 2008, 391, 933-942.	1.9	70
64	Microfluidic electroporation for selective release of intracellular molecules at the singleâ€cell level. Electrophoresis, 2008, 29, 2939-2944.	1.3	26
65	Microfluidic delivery of small molecules into mammalian cells based on hydrodynamic focusing. Biotechnology and Bioengineering, 2008, 100, 150-158.	1.7	57
66	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
67	Quantification of bacterial cells based on autofluorescence on a microfluidic platform. Journal of Chromatography A, 2008, 1181, 153-158.	1.8	42
68	Microfluidic CARS cytometry. Optics Express, 2008, 16, 5782.	1.7	63
69	Microfluidics-Based Lysis of Bacteria and Spores for Detection and Analysis. , 2008, , 817-831.		3
70	A microfluidic device for physical trapping and electrical lysis of bacterial cells. Applied Physics Letters, 2008, 92, .	1.5	40
71	Detection of Kinase Translocation Using Microfluidic Electroporative Flow Cytometry. Analytical Chemistry, 2008, 80, 1087-1093.	3.2	34
72	Microfluidic Electroporative Flow Cytometry for Studying Single-Cell Biomechanics. Analytical Chemistry, 2008, 80, 7714-7719.	3.2	60

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73	Total Internal Reflection Fluorescence Flow Cytometry. Analytical Chemistry, 2008, 80, 9840-9844.	3.2	25
74	Single molecule Î»-DNA stretching studied by microfluidics and single particle tracking. Journal of Applied Physics, 2007, 102, 074703.	1.1	14
75	Rapid Electrical Lysis of Bacterial Cells in a Microfluidic Device. Methods in Molecular Biology, 2007, 385, 23-35.	0.4	7
76	Microfluidic Cell Electroporation Using a Mechanical Valve. Analytical Chemistry, 2007, 79, 9584-9587.	3.2	34
77	A Nanoporous Silicon Membrane Electrode Assembly for On-Chip Micro Fuel Cell Applications. Journal of Microelectromechanical Systems, 2006, 15, 671-677.	1.7	33
78	Microfluidic cell fusion under continuous direct current voltage. Applied Physics Letters, 2006, 89, 234102.	1.5	46
79	Microfluidic chemical cytometry based on modulation of local field strength. Chemical Communications, 2006, , 3528.	2.2	37
80	Electroporation of Mammalian Cells in a Microfluidic Channel with Geometric Variation. Analytical Chemistry, 2006, 78, 5158-5164.	3.2	145
81	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
82	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
83	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
84	Acid loaded porous silicon as a proton exchange membrane for micro-fuel cells. Journal of Power Sources, 2004, 135, 198-203.	4.0	88
85	UHV, Electrochemical NMR, and Electrochemical Studies of Platinum/Ruthenium Fuel Cell Catalysts. Journal of Physical Chemistry B, 2002, 106, 9581-9589.	1.2	181
86	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
87	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
88	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
89	Chemistry of Methoxonium on (2 Ã— 1)Pt(110). Journal of Physical Chemistry B, 2001, 105, 8583-8590.	1.2	12
90	Evidence for a cation intermediate during methanol dehydration on Pt(110). Catalysis Letters, 2001, 72, 167-175.	1.4	11

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91	Catalytic oxidation of odorous organic acids. Catalysis Today, 2000, 62, 347-353.	2.2	10
92	Capillary Electrophoresis of Nucleic Acids at the Single-Cell Level. , 0, , 75-91.		0
93	Microfluidic Technology for Single-Cell Analysis. , 0, , 93-106.		0
94	Ultrasensitive Analysis of Individual Cells via Droplet Microfluidics. , 0, , 143-157.		1