Xuanhong Cheng

List of Publications by Year
in descending order

80 papers	2,646 citations	218592 26 h-index	189801 50 g-index
80 all docs	80 docs citations	80 times ranked	3331 citing authors

#	Article	IF	Citations
1	A microfluidic device for practical label-free CD4+ T cell counting of HIV-infected subjects. Lab on A Chip, 2007, 7, 170-178.	3.1	312
2	Surface Chemical and Mechanical Properties of Plasma-Polymerized N-Isopropylacrylamide. Langmuir, 2005, 21, 7833-7841.	1.6	170
3	Surface Characterization of the Extracellular Matrix Remaining after Cell Detachment from a Thermoresponsive Polymer. Langmuir, 2005, 21, 1949-1955.	1.6	156
4	Plasmonic Machâ€"Zehnder Interferometer for Ultrasensitive On-Chip Biosensing. ACS Nano, 2011, 5, 9836-9844.	7.3	148
5	Cell detection and counting through cell lysate impedance spectroscopy in microfluidic devices. Lab on A Chip, 2007, 7, 746-755.	3.1	136
6	Novel cell patterning using microheater-controlled thermoresponsive plasma films. Journal of Biomedical Materials Research - Part A, 2004, 70A, 159-168.	2.1	112
7	Enhancing the performance of a point-of-care CD4+ T-cell counting microchip through monocyte depletion for HIV/AIDS diagnostics. Lab on A Chip, 2009, 9, 1357.	3.1	102
8	Emerging technologies for point-of-care CD4 T-lymphocyte counting. Trends in Biotechnology, 2012, 30, 45-54.	4.9	97
9	Plasmonic interferometric sensor arrays for high-performance label-free biomolecular detection. Lab on A Chip, 2013, 13, 4755.	3.1	89
10	Comparison of Native Extracellular Matrix with Adsorbed Protein Films Using Secondary Ion Mass Spectrometry. Langmuir, 2007, 23, 50-56.	1.6	87
11	Temperature dependent activity and structure of adsorbed proteins on plasma polymerizedN-isopropyl acrylamide. Biointerphases, 2006, 1, 61-72.	0.6	83
12	A Microchip Approach for Practical Label-Free CD4+ T-Cell Counting of HIV-Infected Subjects in Resource-Poor Settings. Journal of Acquired Immune Deficiency Syndromes (1999), 2007, 45, 257-261.	0.9	81
13	Micro- and nanotechnology for viral detection. Analytical and Bioanalytical Chemistry, 2009, 393, 487-501.	1.9	71
14	A microfabricated electrical differential counter for the selective enumeration of CD4+ T lymphocytes. Lab on A Chip, 2011, 11, 1437.	3.1	62
15	Broadband Electrical Detection of Individual Biological Cells. IEEE Transactions on Microwave Theory and Techniques, 2014, 62, 1905-1911.	2.9	62
16	Plasmonic interferometers for label-free multiplexed sensing. Optics Express, 2013, 21, 5859.	1.7	55
17	Optofluidic Platform for Realâ€Time Monitoring of Live Cell Secretory Activities Using Fano Resonance in Gold Nanoslits. Small, 2013, 9, 3532-3540.	5.2	52
18	Assessment of Cytoplasm Conductivity by Nanosecond Pulsed Electric Fields. IEEE Transactions on Biomedical Engineering, 2015, 62, 1595-1603.	2.5	49

#	Article	IF	Citations
19	Highly efficient and selective isolation of rare tumor cells using a microfluidic chip with wavy-herringbone micro-patterned surfaces. Analyst, The, 2016, 141, 2228-2237.	1.7	47
20	Differentiation of live and heat-killed E. coli by microwave impedance spectroscopy. Sensors and Actuators B: Chemical, 2018, 255, 1614-1622.	4.0	41
21	Ultra-Wideband Impedance Spectroscopy of a Live Biological Cell. IEEE Transactions on Microwave Theory and Techniques, 2018, 66, 3690-3696.	2.9	39
22	A Plasma-Deposited Surface for Cell Sheet Engineering: Advantages over Mechanical Dissociation of Cells. Plasma Processes and Polymers, 2006, 3, 516-523.	1.6	34
23	Distributed Effect in High-Frequency Electroporation of Biological Cells. IEEE Transactions on Microwave Theory and Techniques, 2017, 65, 3503-3511.	2.9	34
24	Effect of Surface Nanotopography on Immunoaffinity Cell Capture in Microfluidic Devices. Langmuir, 2011, 27, 11229-11237.	1.6	33
25	Nanoporous anodic aluminum oxide with a long-range order and tunable cell sizes by phosphoric acid anodization on pre-patterned substrates. Electrochimica Acta, 2014, 117, 498-503.	2.6	28
26	A REVERSIBLE THERMOSENSITIVE ADHESIVE FOR RETINAL IMPLANTS. Retina, 2008, 28, 1338-1343.	1.0	26
27	Recent Developments in Nanomaterialâ€Based Shearâ€Sensitive Drug Delivery Systems. Advanced Healthcare Materials, 2021, 10, e2002196.	3.9	24
28	Maintenance and Neuronal Cell Differentiation of Neural Stem Cells C17.2 Correlated to Medium Availability Sets Design Criteria in Microfluidic Systems. PLoS ONE, 2014, 9, e109815.	1.1	21
29	Inverted scanning microwave microscope for <i>in vitro</i> imaging and characterization of biological cells. Applied Physics Letters, 2019, 114, .	1.5	20
30	Shear-Induced Extensional Response Behaviors of Tethered von Willebrand Factor. Biophysical Journal, 2019, 116, 2092-2102.	0.2	19
31	Quantitative Scanning Microwave Microscopy of the Evolution of a Live Biological Cell in a Physiological Buffer. IEEE Transactions on Microwave Theory and Techniques, 2019, 67, 5438-5445.	2.9	18
32	REVERSIBLE THERMOSENSITIVE GLUE FOR RETINAL IMPLANTS. Retina, 2007, 27, 938-942.	1.0	16
33	Flow-induced conformational change of von Willebrand Factor multimer: Results from a molecular mechanics informed model. Journal of Non-Newtonian Fluid Mechanics, 2015, 217, 58-67.	1.0	15
34	Investigation of Controllable Nanoscale Heat-Denatured Bovine Serum Albumin Films on Graphene. Langmuir, 2016, 32, 12623-12631.	1.6	14
35	Sensitivity Analysis for Ultra-Wideband 2-Port Impedance Spectroscopy of a Live Cell. IEEE Journal of Electromagnetics, RF and Microwaves in Medicine and Biology, 2020, 4, 37-44.	2.3	14
36	Microfluidic separation of viruses from blood cells based on intrinsic transport processes. Biomicrofluidics, 2011, 5, 32004-3200410.	1.2	13

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37	Fabrication of Macroporous Polymeric Membranes through Binary Convective Deposition. ACS Applied Materials & Interfaces, 2012, 4, 4532-4540.	4.0	13
38	Perfused drop microfluidic device for brain slice culture-based drug discovery. Biomedical Microdevices, 2016, 18, 46.	1.4	13
39	A mechano-reactive coarse-grained model of the blood-clotting agent von Willebrand factor. Journal of Chemical Physics, 2019, 151, 124905.	1.2	13
40	Intensity-modulated nanoplasmonic interferometric sensor for MMP-9 detection. Lab on A Chip, 2019, 19, 1267-1276.	3.1	13
41	Measuring the Soret coefficient of nanoparticles in a dilute suspension. Journal of Nanoparticle Research, 2014, 16, 2625.	0.8	12
42	Validation of Clausiusâ€“Mossotti Function in Wideband Single-Cell Dielectrophoresis. IEEE Journal of Electromagnetics, RF and Microwaves in Medicine and Biology, 2019, 3, 127-133.	2.3	12
43	Predicting pathological von Willebrand factor unraveling in elongational flow. Biophysical Journal, 2021, 120, 1903-1915.	0.2	12
44	Enumerating virus-like particles in an optically concentrated suspension by fluorescence correlation spectroscopy. Biomedical Optics Express, 2013, 4, 1646.	1.5	11
45	Coarse-Grain Modeling of Shear-Induced Binding between von Willebrand Factor and Collagen. Biophysical Journal, 2018, 114, 1816-1829.	0.2	11
46	Internal Tensile Force and A2 Domain Unfolding of von Willebrand Factor Multimers in Shear Flow. Biophysical Journal, 2018, 115, 1860-1871.	0.2	11
47	Effect of pulsatility on shearâ€induced extensional behavior of Von Willebrand factor. Artificial Organs, 2022, 46, 887-898.	1.0	10
48	Correlation Between Optical Fluorescence and Microwave Transmission During Single-Cell Electroporation. IEEE Transactions on Biomedical Engineering, 2019, 66, 2223-2230.	2.5	9
49	Influences of Adhesion Variability on the â€œLivingâ€• Dynamics of Filamentous Bacteria in Microfluidic Channels. Molecules, 2016, 21, 985.	1.7	8
50	Enhancement of binding kinetics on affinity substrates by laser point heating induced transport. Analyst, The, 2016, 141, 1807-1813.	1.7	8
51	Infrared light induced patterning of proteins on ppNIPAM thermoresponsive thin films: a â€œprotein laser printerâ€. Lab on A Chip, 2010, 10, 1079.	3.1	7
52	Ultra-wideband Characterization, Electroporation, and Dielectrophoresis of a Live Biological Cell Using the Same Vector Network Analyzer. , 2018, , .		7
53	Tangential Flow Microfiltration for Viral Separation and Concentration. Micromachines, 2019, 10, 320.	1.4	7
54	Transparency of PDMS based microfluidic devices under temperature gradients. Journal of Micromechanics and Microengineering, 2019, 29, 015014.	1.5	7

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55	Thermoresponsive MALDI Probe Surfaces as a Tool for Protein On-Probe Purification. Analytical Chemistry, 2007, 79, 6840-6844.	3.2	6
56	Microfluidic devices with templated regular macroporous structures for HIV viral capture. Analyst, The, 2016, 141, 1669-1677.	1.7	6
57	Optimization of nanoparticle focusing by coupling thermophoresis and engineered vortex in a microfluidic channel. Journal of Applied Physics, 2017, 121, .	1.1	6
58	Micropatterned macroporous structures in microfluidic devices for viral separation from whole blood. Analyst, The, 2017, 142, 2220-2228.	1.7	6
59	â€œLivingâ€• dynamics of filamentous bacteria on an adherent surface under hydrodynamic exposure. Biointerphases, 2017, 12, 02C410.	0.6	6
60	Broadband Scanning Microwave Microscopy of a Biological Cell with Unprecedented Image Quality and Signal-to-Noise Ratio. , 2019, , .		6
61	Ultra-wideband Electrical Sensing of Nucleus Size in a Live Cell. , 2019, , .		5
62	Broadband Electrical Sensing of a Live Biological Cell with In Situ Single-Connection Calibration. Sensors, 2020, 20, 3844.	2.1	5
63	Broadband electrical impedance as a novel characterization of oxidative stress in single L6 skeletal muscle cells. Analytica Chimica Acta, 2021, 1173, 338678.	2.6	5
64	Broadband Electrical Sensing of Nucleus Size in a Live Cell From 900 Hz to 40 GHz. , 2020, , .		5
65	Gravity-induced swirl of nanoparticles in microfluidics. Journal of Nanoparticle Research, 2013, 15, 1611.	0.8	4
66	Ultra-Wideband Impedance Spectroscopy of the Nucleus in a Live Cell. IEEE Journal of Electromagnetics, RF and Microwaves in Medicine and Biology, 2022, 6, 267-272.	2.3	4
67	Integration of Hierarchical Micro-/Nanostructures in a Microfluidic Chip for Efficient and Selective Isolation of Rare Tumor Cells. Micromachines, 2019, 10, 698.	1.4	3
68	Platelet mechanosensing axis revealed. Nature Materials, 2019, 18, 661-662.	13.3	3
69	Unraveling Kinetics of Collapsed Polymers in Extensional Flow. Macromolecules, 2021, 54, 8259-8269.	2.2	3
70	Conjunctival Impression Cytology by Using a Thermosensitive Adhesive: Polymerized N-isopropyl Acrylamide. Cornea, 2009, 28, 770-773.	0.9	2
71	Prediction of Sub-Monomer A2 Domain Dynamics of the von Willebrand Factor by Machine Learning Algorithm and Coarse-Grained Molecular Dynamics Simulation. Scientific Reports, 2019, 9, 9037.	1.6	2
72	Rare Event Prediction of Von Willebrand Factor Multimer Unfolding in Extensional Flow. Biophysical Journal, 2021, 120, 297a.	0.2	2

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73	A Low-Cost, Point-of-Care Sickle Cell Anemia Screening Device for Use in Low and Middle-Income Countries. , 2019, , .		1
74	Characterizing Single-Molecule Conformational Changes Under Shear Flow with Fluorescence Microscopy. Journal of Visualized Experiments, 2020, , .	0.2	1
75	Flow-regulated nucleation protrusion theory for collapsed polymers. Physical Review E, 2021, 104, 054504.	0.8	1
76	Infrared Light Induced Patterning of Proteins on ppNIPAM Thermoresponsive Thin Films: A â€œProtein Laser Printerâ€• , 0, , .		0
77	Circular plasmonic interferometers for ultrasensitive low-background optical sensing. , 2013, , .		0
78	Circular Nanoplasmonic Interferometer for Detection of Immune-Cell Secretion. , 2018, , .		0
79	Editorial for the Special Issue on â€œMicro- and Nanofluidics for Bionanoparticle Analysisâ€• Micromachines, 2019, 10, 600.	1.4	0
80	Label-free focusing of viral particles under a temperature gradient coupled with continuous swirling flow. RSC Advances, 2022, 12, 4263-4275.	1.7	0